DEPARTMENT OF AGRICULTURE
Regional Field Office No. 02

2019 ANNUAL REPORT

Featuring the New Thinking:

8 Paradigms to level up AGRICULTURE

A food-secure and resilient Philippines

with prosperous farmers and fisherfolk

Masaganang ANI Mataas na KITA

Mandate

The Department is the government agency responsible for the promotion of agricultural development by providing the policy framework, public investments, and support services needed for domestic and export-oriented business enterprises.

In the fulfillment of this mandate, it shall be the primary concern of the Department to improve farm income and generate work opportunities for farmers, fishermen and other rural workers. It shall encourage people's participation in agricultural development through sectoral representation in agricultural policy-making bodies so that the policies, plans and programs of the Department are formulated and executed to satisfy their needs.

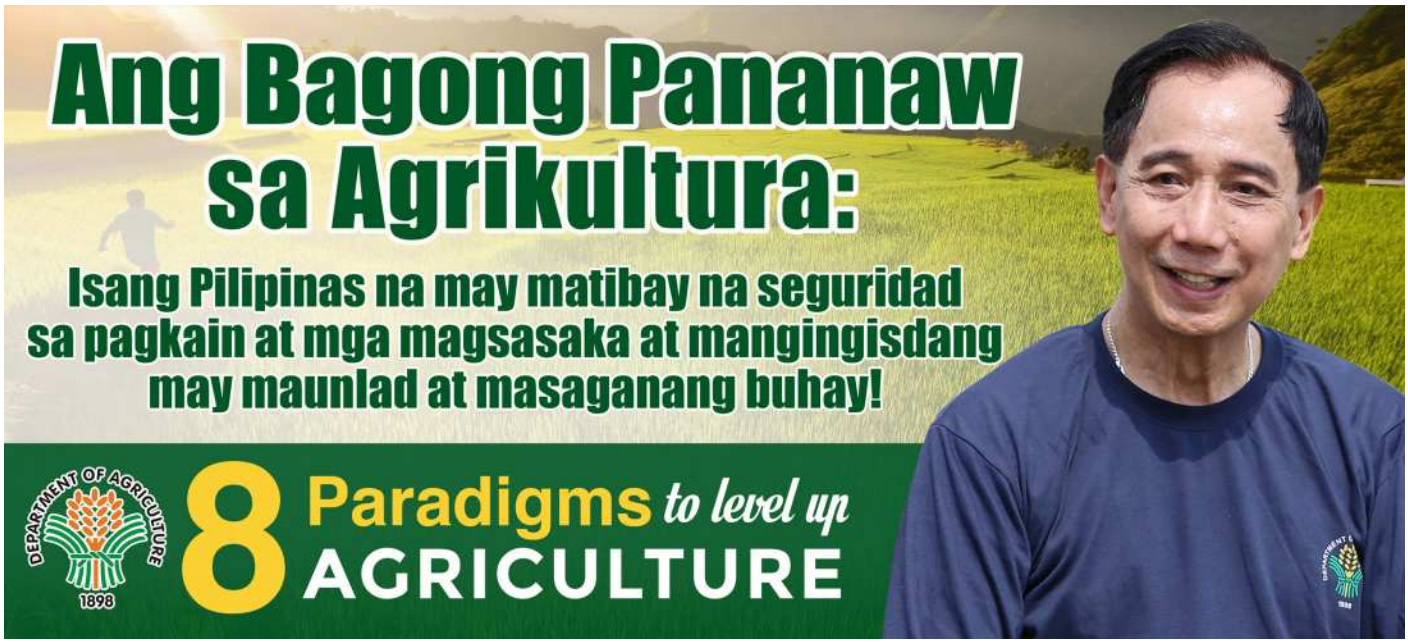
It shall also use a bottom-up self-reliant farm system approach that will emphasize social justice, equity, productivity and sustainability in the use of agricultural resources.

Vision

A food-secure and resilient Philippines with prosperous farmers and fisherfolk.

Mission

To collectively empower farmers and fisherfolk and the private sector to increase agricultural productivity and profitability, taking into account sustainability and resilience.



Modernization of Agriculture

Modernization and the use of modern technology must also cover all crops, including those with export potential in processed or value-added form like coffee, cacao, cassava, tropical fruits, rubber, among others. Relative to that, there is a need to diversify crop production in the Philippines as about 80 percent of the country's farmlands are devoted to only three crops: rice, corn, and coconut.

Agripreneurship should also form part of the paradigm to modernize Philippine agriculture, as farming and fisheries should be treated as business undertakings or industries. Agripreneurship is also one of the components to industrialize Philippine agriculture.

Industrialization of Agriculture

Agriculture must be treated as an industry, with the objective of industrializing the value chain of every agricultural commodity. While productivity increase is a major objective, it is equally important to produce more income by value adding, processing, manufacturing, and developing markets for both raw and processed agricultural products.

There is also a need to engage the private sector in investing and setting up of more agri-based industries in the countryside and developing markets for agriculture products.

Relative to the industrialization of Philippine agriculture is creating the framework for the digitization of farming and agribusiness activities in the country where credit is made available, affordable, and accessible.

Promotion of Exports

The country should have a systematic and long-term strategy in developing and promoting exports of raw and processed agricultural products. This would require achieving economies of scale in on-farm production that would generate sustained quantity and quality of export products.

The private sector's role will be essential in developing and promoting agricultural products. At present, the Philippines only has two agricultural products that earn at least $1 billion per year in export receipts: bananas; and coconut products (mostly in oil form). Thailand has 13 types of farm exports earning over $1 billion each year, Indonesia has five, and Vietnam has seven.

A convergence of efforts of the Department of Agriculture, and the Department of Trade and Industry including other departments will be necessary.

Farm Consolidation

The government must promote and support farm consolidation arrangements to bring about economies of scale, particularly for crops that require mechanization and massive use of technology. These schemes include block farming, trust farming, contract farming, and corporative farming that will make farming more efficient, where technology is used, where cost of production is reduced, and farm productivity and incomes are increased.

Infrastructure Development

Agricultural areas need infrastructure development and logistics to improve their linkages to the urban/domestic and export markets. Thus, a "Build, Build, Build" program is also a must for agriculture.

There is also a need to engage the private sector in a "build and transfer" scheme to accelerate the development of national irrigation systems.

Higher Budget and Investments for Agriculture

The government and the private sector with the strong and popular support from the citizenry, must provide the necessary budget and investment to grow and develop Philippine agriculture. The increased budget will help unlock the bigger potential contribution of agriculture and agribusiness to the economy, including more employment opportunities.

Legislative Support

The country's agriculture sector needs the help of both the Senate and the House of Representatives, for policy and structural reforms that need to be legislated and institutionalized.

Roadmap Development

The government, through the Department of Agriculture, should take the lead in generating the "big ideas" for the roadmap, and should solicit inputs from the private sector and other stakeholders.

The roadmap should also actively involve the private sector, which may have more access to the export markets and funding for research for development.

A value-chain approach to level up Philippine agriculture, while making sure the smallholders also earn their fair share of the fruits of production along the value chain.

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Nagbacalan FMR, Ramon, Isabela

Message of the Regional Executive Director

Binabati ko ang lahat nang may lubos na kagalakan at taos-pusong pasasalamat dahil sa mga nakamit at napagtagumpayan ng ating rehiyon sa taong ito!

Ang walang sawang suporta at pagtangkilik ng ating mga magsasaka, mangingisda, at mga kaisa sa ating mga proyekto at programa upang masigurong sapat, ligtas, at abot-kaya ang pagkain para sa lahat ay ilan sa maraming mga dahilan kung bakit nananatiling matagumpay ang ating Lambak ng Cagayan sa larangan ng agrikultura.

We are guided by the 8 Paradigms to Level Up Agriculture of Secretary William D. Dar. We found ways to advance to the vision of our office and help our staff improve their capacities in delivering goods and services. This is proven by the success in the implementation of our programs and projects during the year of review.

This year, we have recorded an exceptional performance not just in production, but in area harvested, and most importantly, in yield. Despite the natural calamities that entered the country, we have reaped a total of 2.6 Million Metric Tons (MMT) on rice production covering 345,874 hectares and 1.8 MMT of white corn production covering 236,566 hectares.

Region 02 has sustained its traditional role as local rice and white corn exporter with 277% and 658% sufficiency levels, respectively. We contribute about 23% in corn, making Cagayan Valley the No. 1 Corn Producer and 14% in rice making us the No. 2 Rice Producer in the entire country.

Our programs in high-value crops, livestock, and organic agriculture realized their goals this year as pesticide-safe vegetables, fruits, and animal products and by-products are made more accessible and more affordable to consumers through the extensive implementation and interventions on Good Agricultural Practices (GAP), Good Animal Husbandry Practices (GAHP), and third-party certifications on organic production farms.

Overall, our regional food sufficiency level significantly higher than the national food sufficiency level.

Meanwhile, our research came up with the Abulug Sweet Siamese Pummelo variety which is now registered and certified by National Seed Industry Council (NSIC).

Lastly, our region is consistently free from Foot-and-Mouth Disease (FMD) and Avian Influenza (AI) even without vaccination, thus making Region 02 a safe place for the livestock industry.

Convergence has become our way of life in implementing our programs and projects with our partner agencies, local government units (LGUs), and the private sector, leading us to where we are now.

Needless to say that it is with utmost pride and honor having to work with the employees of this department who are consistent hard workers and significant contributors to a solid, efficient, and competent team.

I believe that with the constant support and cooperation between the Department of Agriculture Regional Office No. 2 (DA RFO 02), and the farmers, fisherfolk, and stakeholders in the agricultural community, we can elevate not only our livelihood but the national economy towards a brighter tomorrow.

Maraming salamat at mabuhay!

NARCISO A. EDILLO, M.A.Ed.
Regional Executive DIrector

Cagayan Valley's Agriculture Sector Performance

Cagayan Valley Region is widely-known as one of the top performing agricultural regions in the Philippines.

With favorable performance on production and yield of major crops, this year is expected to be better compared to the region's percent share (at constant prices) in the Gross Regional Domestic Products (GRDP), its Gross Value Added (GVA) exclusive of Agriculture, Hunting and fising industry in the amount of 101,236, 022 (at 2018 current price).

HYTA-HR Field Day, Mabini, Gamu, Isabela

Typhoons and other natural calamities hit the country every now and then. Several of these sometimes concentrate in land areas of Cagayan Valley which reason for losses in most aspects of the agricultural sector. However, the region recuperated this year and sustained its rank as the top producing region for corn and second top producing region for rice. In addition, there is also a significant increase in the overall production, area harvested, yield, and the regional food sufficiency level in Region 02 as it became relatively higher than the national food sufficiency level.

Despite the challenges faced by the region, Cagayan Valley's agricultural sector performance was better this year, making it one of the strongest and most reliable agricultural regions in the country. Various programs and interventions that are supportive to the eight (8) Paradigms to Level Up Agriculture the directive of our Department of Agriculture Secretary William D. Dar, were accomplished to achieve this milestone.

Cagayan Valley

2nd Rank

as Rice Producer in the Philippines

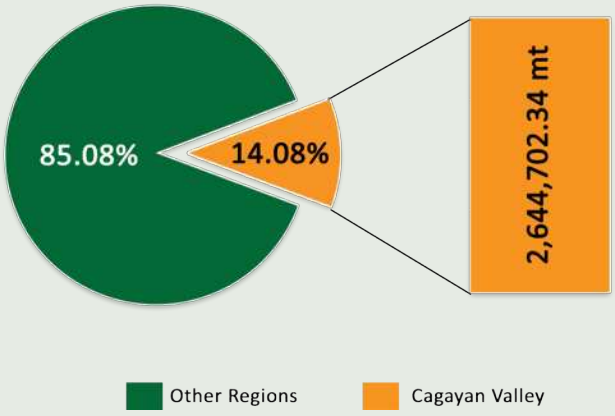
Yield increased to 4.37 mt/ha*

Volume increased by 14.86%*

Area harvested increased by 10.97%*

* Compared to 2018 data

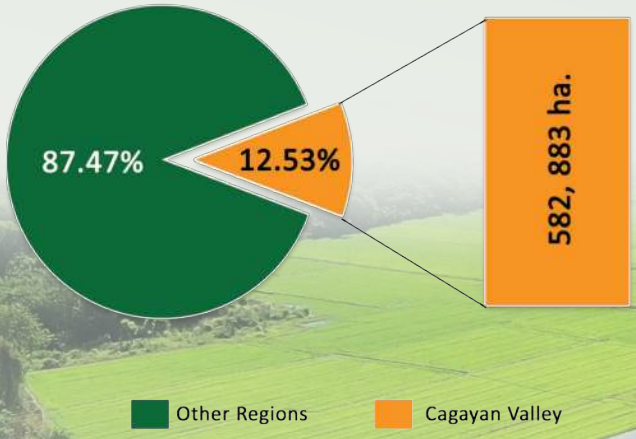
Cagayan Valley's % share in the total volume of Palay production in the Philippines, 2019



Production by Province (mt), 2019

CAGAYAN VALLEY	2,644,702.34
BATANES	74.75
CAGAYAN	905,593.87
ISABELA	1,369,049.51
NUEVA VIZCAYA	270,000.5
QUIRINO	99,983.89

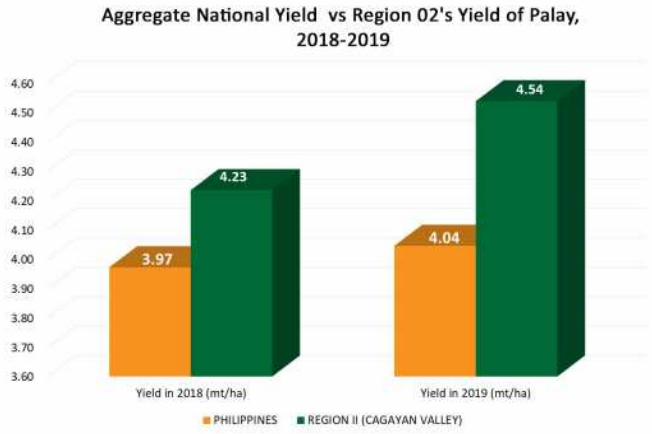
Cagayan Valley's % share in the total Area Harvested of palay in the Philippines, 2019



Area Harvested by Province (ha.), 2019

CAGAYAN VALLEY	582,883.00
BATANES	72.00
CAGAYAN	210,784.00
ISABELA	286,574.00
NUEVA VIZCAYA	61,304.00
QUIRINO	24,149.00

Source: PSA 2019



Yield by Province (mt/ha.), 2019

CAGAYAN VALLEY	**4.537**
BATANES	1.036
CAGAYAN	4.296
ISABELA	4.777
NUEVA VIZCAYA	4.404
QUIRINO	4.140

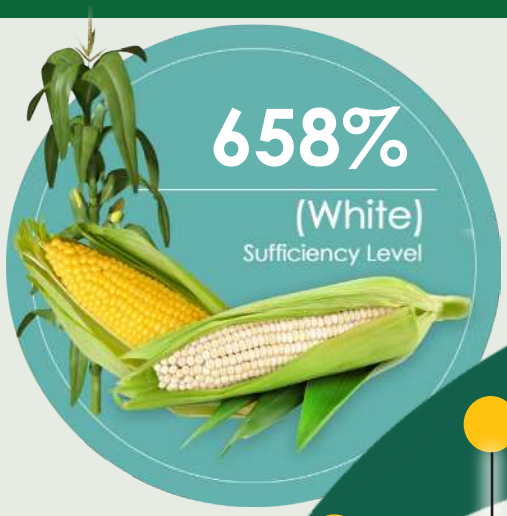
PALAY	PRODUCTION						AREA					YIELD			
	Volume in 2018 (mt)	Volume in 2019 (mt)	Volume Difference (mt)	Growth (%)	Growth Rate (%)	% share	Total Area in 2018 (ha)	Total Area in 2019 (ha)	Area Difference (ha)	Growth Rate (%)	% share	Yield in 2018 (mt/ha)	Yield in 2019 (mt/ha)	Difference (mt/ha)	Growth Rate (%)
PHILIPPINES	**19,066,093.94**	**18,814,827.29**					**4,800,406.09**	**4,651,489.68**				**3.972**	**4.045**		
REGION II (CAGAYAN VALLEY)	**2,379,771.42**	**2,644,702.34** ⬆	**264,930.92** +	**11.13**	**0.11**	**14.06**	**562,017.51** ⬆	**582,883.00** +	**20,865.49**	**0.04**	**12.53**	**4.234**	**4.537** ⬆	**0.303** +	**0.072**
Batanes	70.42	74.57	4.15	5.89	0.06	0.00	64.78	72.00	7.22	0.11	0.002	1.087	1.036	-0.051	-0.047
Cagayan	832,941.00	905,593.87	72,652.87	8.72	0.09	4.81	196,168.00	210,784.00	14,616.00	0.07	4.53	4.246	4.296	0.050	0.012
Isabela	**1,188,584.00**	**1,369,049.51**	**180,465.51**	**15.18**	**0.15**	**7.28**	**281,326.00**	**286,574.00**	**5,248.00**	**0.02**	**6.16**	**4.225**	**4.777**	**0.552**	**0.131**
Nueva Vizcaya	270,070.00	270,000.50	-69.50	-0.03	0.00	1.44	61,618.00	61,304.00	-314.00	-0.01	1.32	4.383	4.404	0.021	0.005
Quirino	88,106.00	99,983.89	11,877.89	13.48	0.13	0.53	22,840.73	24,149.00	1,308.27	0.06	0.52	3.857	4.140	0.283	0.073

Source: PSA 2019

In 2019, Cagayan Valley maintained its rank as the second top producing region of palay all over the Philippines. Region 02 accumulated a total volume of palay production totaling to 264,4702.34 metric tons (mt). Compared to the 2018 performance of the region in terms of volume of production, Cagayan Valley's harvest increased by 11.13% or 264,930.92 mt. Being one of the highest producing regions of palay in the country, Cagayan Valley's volume of Palay production constituted 14.06% of the national palay production. In terms of area planted and harvested for 2019, Cagayan Valley increased its area harvested of palay by 7.22% or equivalent to 20,865.49 hectares (ha) compared to 2018 data. The overall area harvested of Palay in Region 2 in 2019 made up to 12.53% of the total area harvested of palay in the Philippines.

Yield as a measure of productivity is greatly affected by volume of production and area harvested. Palay yield of Cagayan Valley has a significant increase from 4.23 metric tons per hectare (mt/ha) in 2018 to 4.54 mt/ha this 2019. Furthermore, compared to the 2019 aggregate national rice yield of 4.04 mt/ha, Region 2 has been more productive in terms of yield with a difference of 0.31 mt/ha. Consistently, Region 2 has a higher yield compared to the aggregate national palay yield from 2018 to 2019.

Among the five (5) provinces of Region 02 in 2019, Isabela contributes the highest in terms of production at 1,369,049.51 mt, area harvested at 286,574 ha, and yield at 4.78 mt/ha, followed by Cagayan, Nueva Vizcaya, Quirino, and Batanes.



Cagayan Valley
1st Rank
as Corn Producer in the Philippines

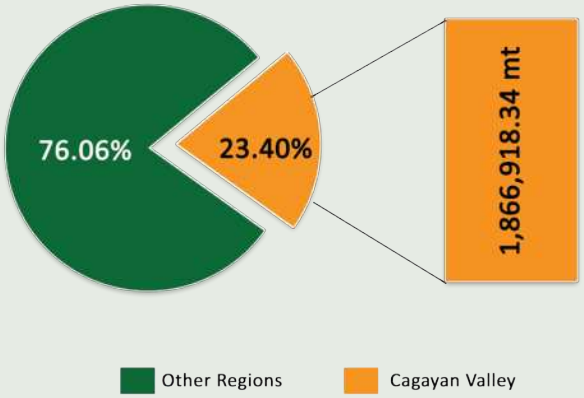
Yield increased to 4.54 mt/ha*

Volume increased by 11.13%*

Area harvested increased by 7.22%*

* Compared to 2018 data

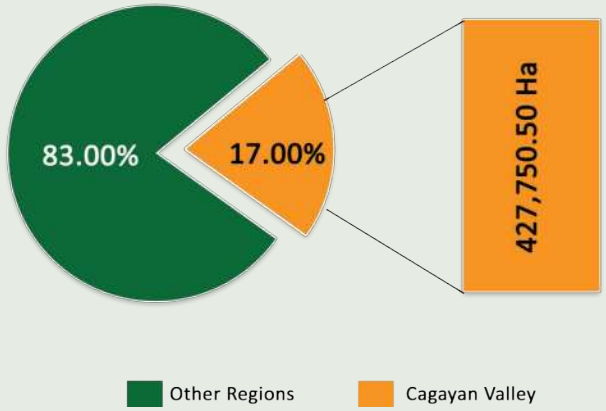
Cagayan Valley's % Share in the Total Volume of Corn Production in the Philippines, 2019



Production by Province (mt), 2019

CAGAYAN VALLEY	1,866,918.34
BATANES	208.62
CAGAYAN	492,627.000
ISABELA	1,135,479.00
NUEVA VIZCAYA	73,813.00
QUIRINO	164,790.72

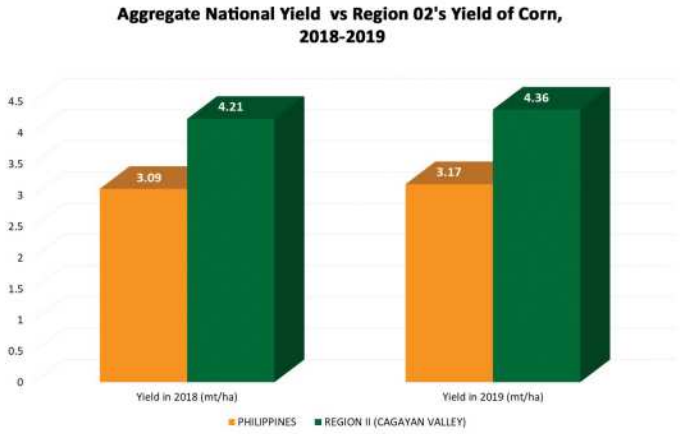
Cagayan Valley's % Share in the Total Area Harvested of Corn in the Philippines, 2019



Area by Province (ha), 2019

CAGAYAN VALLEY	427,750.50
BATANES	92.50
CAGAYAN	118,168.00
ISABELA	252,963.00
NUEVA VIZCAYA	16,634.00
QUIRINO	39,893.00

Source: PSA 2019



Yield by Province (mt/ha), 2019

CAGAYAN VALLEY	**4.365**
BATANES	2.225
CAGAYAN	4.169
ISABELA	4.489
NUEVA VIZCAYA	4.437
QUIRINO	4.131

CORN	PRODUCTION						AREA PLANTED					YIELD			
	Volume in 2018 (mt)	Volume in 2019 (mt)	Volume Difference (mt)	Growth (%)	Growth Rate (%)	% share	Total Area in 2018 (ha)	Total Area in 2019 (ha)	Area Difference (ha)	Growth Rate (%)	% share	Yield in 2018 (mt/ha)	Yield in 2019 (mt/ha)	Difference (mt/ha)	Growth Rate (%)
PHILIPPINES	7,771,918.63	7,978,844.55					2,511,436.27	2,516,722.96				3.095	3.170		
REGION II (CAGAYAN VALLEY)	1,625,325.36	1,866,918.34	241,592.98	14.86	0.15	23.40	385,660.25	427,750.50	42,090.25	0.11	17.00	4.214	4.365	0.150	0.036
Batanes	235.86	208.62	-27.24	-11.55	-0.12	0.00	104.25	92.50	-11.75	-0.11	0.004	2.262	2.255	-0.007	-0.003
Cagayan	368,946.00	492,627.00	123,681.00	33.52	0.34	6.17	89,657.00	118,168.00	28,511.00	0.32	4.70	4.115	4.169	0.054	0.013
Isabela	1,015,642.50	1,135,479.00	119,836.50	11.80	0.12	14.23	240,194.00	252,963.00	12,769.00	0.05	10.05	4.228	4.489	0.260	0.062
Nueva Vizcaya	75,429.00	73,813.00	-1,616.00	-2.14	-0.02	0.93	16,772.00	16,634.00	-138.00	-0.01	0.66	4.497	4.437	-0.060	-0.013
Quirino	165,072.00	164,790.72	-281.28	-0.17	0.00	2.07	38,933.00	39,893.00	960.00	0.02	1.59	4.240	4.131	-0.110	-0.026

Source: PSA 2019

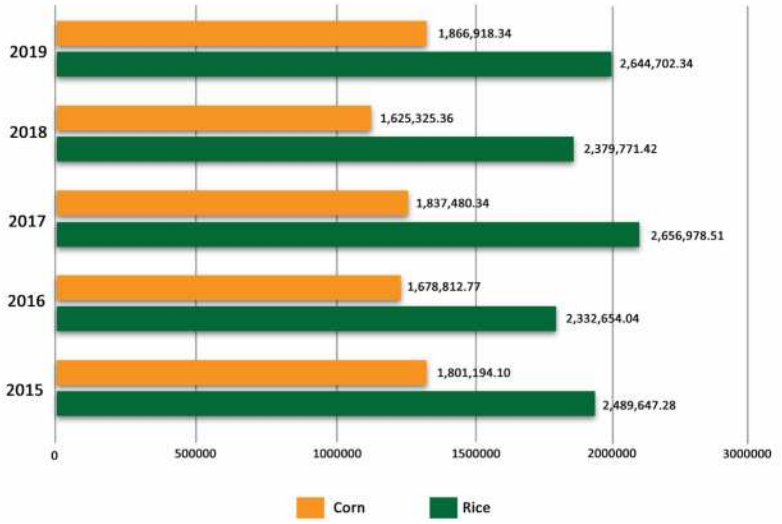
In 2019, Cagayan Valley maintained its rank as the top producing region of corn all over the Philippines. Region 02 accumulated a total volume of corn production totaling to 1,866,918.34 mt. Compared to the 2018 performance of the region in terms of volume of production, Cagayan Valley's harvest increased by 241,592.98 mt to 264,930.92 mt or 14.86%. Being the highest producing region of corn in the country, Cagayan Valley's volume of corn production constituted 23.40 % of the national corn production. In terms of area harvested for 2019, Cagayan Valley increased its harvest by 42,090.25 ha of corn compared to 2018 data. The overall area harvested of corn in Region 2 in 2019 made up to 17 % of the total area harvested of corn in the Philippines.

Yield as a measure of productivity is greatly affected by volume of production and area planted and harvested. Corn yield of Cagayan Valley has a significant increase from 4.21 mt/ha in 2018 to 4.36 mt/ha this 2019. Furthermore, compared to the 2019 aggregate national corn yield of 3.17 mt/ha, Region 2 has been more productive in terms of yield with a difference of 1.19 metric tons per hectare. Consistently, Region 2 has a higher yield compared to the aggregate national corn yield from 2018 to 2019.

The highest corn producing province in the region is Isabela which contributes about 1,135,475 mt in 2019, with a total harvested area of 252,963 ha and corresponding yield of 4.49 mt/ha followed by Cagayan, Quirino, Nueva Vizcaya and Batanes with a total volume of production of 368,946 mt, 16,5072 mt, 75,429 mt, and 235.86 mt, respectively.

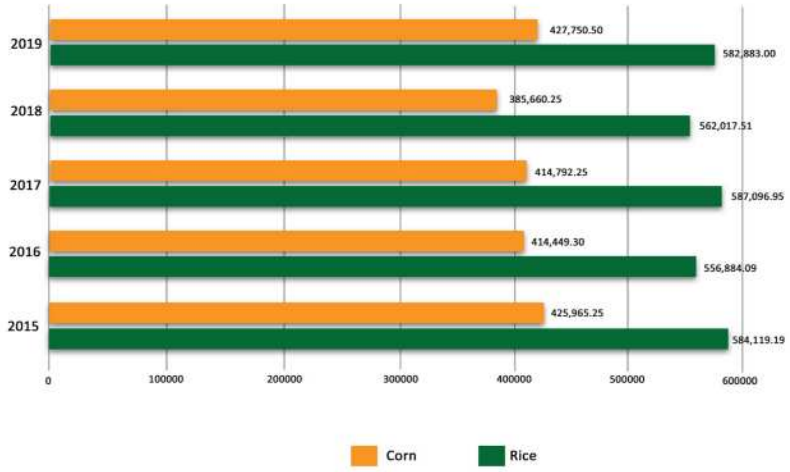
Palay and Corn **Volume of Production** in Region 02, 2015-2019

The graph shows the volume of production (m) of palay and corn in Cagayan Valley for the last five years, 2015-2019. It can be observed that the trend in the volume of production of palay and corn in Cagayan Valley has been increasing aside from the sudden decrease in 2016 and 2018 due to factors affecting the volume of production (i.e. natural phenomenon, lower farmgate price). Compared to the 2018 data, the volume of production for both commodities has an evident increase of 264, 930.92 mt or 11.13% for palay and 241,592.98 mt or 14.86% for corn. Over the last 5 years (2015-2019), despite the massive losses incurred in 2016 and 2018, Cagayan Valley incurred an average growth in volume production of palay at 1.07% and corn at 0.43%.



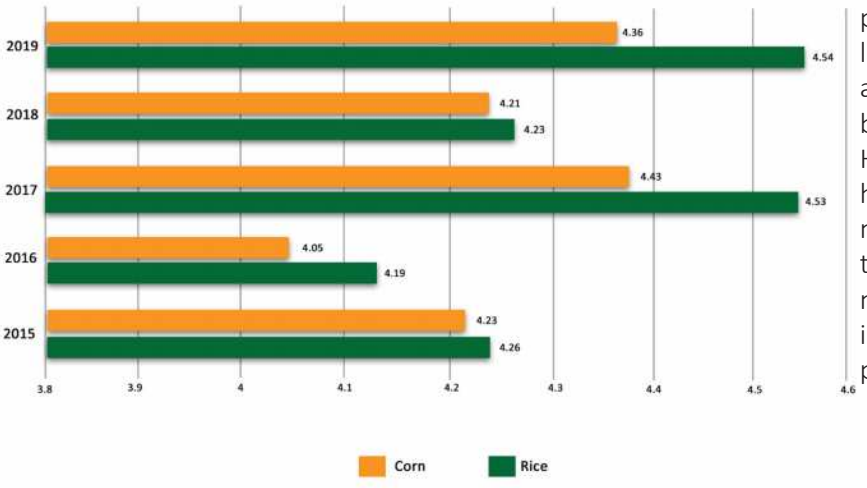
Palay and Corn **Area Harvested** in Region 02, 2015-2019

The graph shows the area planted and harvested (ha) of palay and corn in Cagayan Valley for the last five (5) years, 2015-2019. Last 2016 and 2018, area planted and harvested is greatly affected by natural calamities. However, Cagayan Valley remained to be the largest area planted and harvested of corn and 2nd largest area planted and harvested of palay in the Philippines this 2019. Compared to the 2018 data, the area harvested for both commodities has an evident increase of 7.22% or equivalent to 20, 865.49 hectares for palay and 10.91% or 42, 090.25 hectares for corn. Over the last 5 years (2015-2019), despite the massive losses incurred in 2016 and 2018, Cagayan Valley incurred an average growth in area harvested of palay at -0.16% and corn at -0.10%.



Palay and Corn **Average Yield** in Region 02, 2015-2019

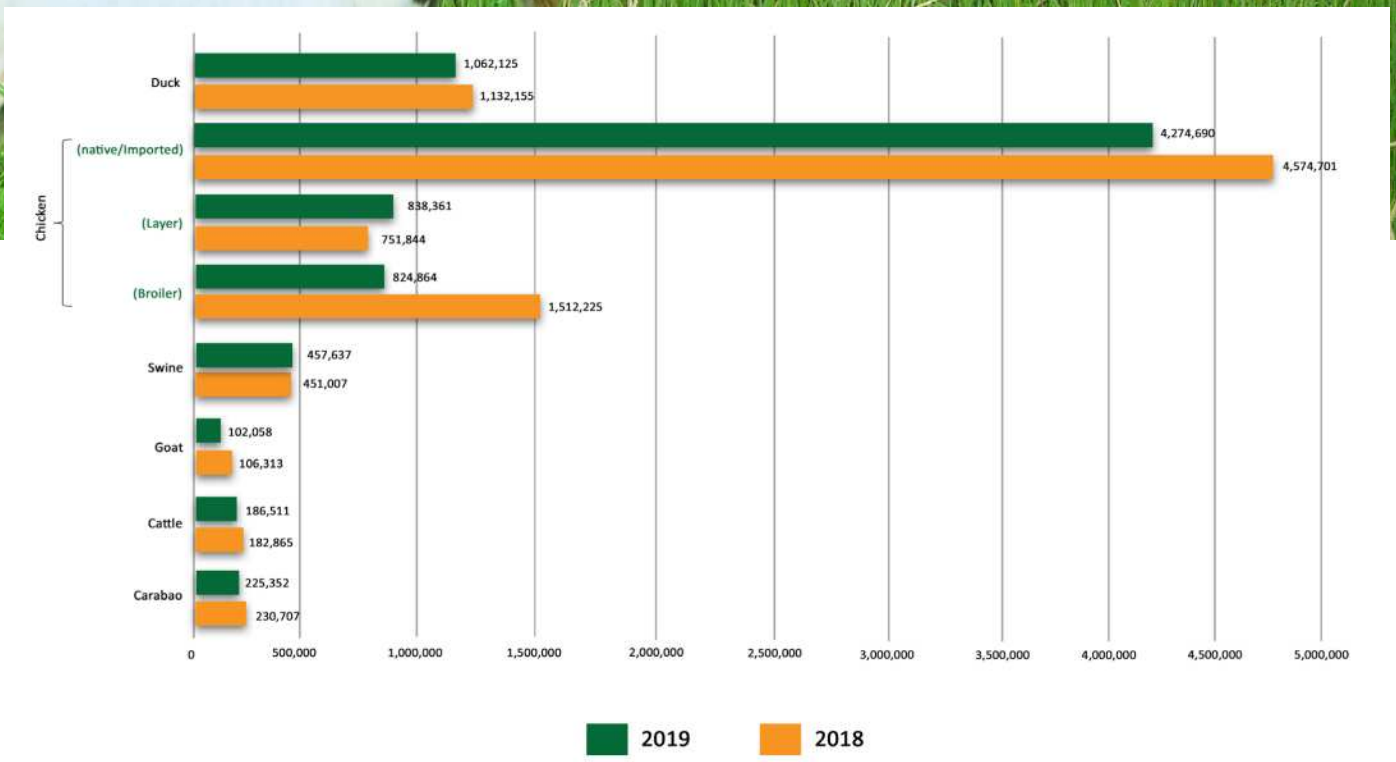
The graph shows the yield (mt/ha) of palay and corn in Cagayan Valley for the last five years, 2015-2019. As mentioned above, the region was greatly affected by several typhoons last 2016 and 2018. However, Cagayan Valley managed to have a higher yield compared to the national yield of palay and corn. Over the last 5 years (2015-2019), despite the massive losses incurred, Cagayan Valley incurred an average growth in yield of palay at 1.37% and corn at 0.62%.



Source: PSA 2019

LIVESTOCK AND POULTRY

Photo taken at DA- Cagayan Breeding Station (CBS)
Solana, Cagayan



Source: PSA 2019

The 2019 inventory of livestock in Cagayan Valley shows that there is an increase in the number of heads of cattle, goat (commercial), chicken (layer), and swine compared to the 2018 inventory. This 2019, chicken (layer) garnered the highest increase of 10.23% or 86, 517 heads of chicken (layer), followed by commercial goat (8.61%), cattle (1.95%), and swine (1.44%). Various programs and interventions that are supportive to the 8 paradigms to level up agriculture in accordance with the directive of our DA Secretary William Dar were done to achieve this growth in the number of livestock heads in Cagayan Valley.

In addition, most of the food sufficiency levels related to livestock in Cagayan Valley are higher than the national food sufficiency indices. The national food sufficiency levels for carabeef, beef, pork, chicken, and duck are 65.10%, 60.99%, 86.09%, 93.63%, and 99.28%, respectively. Meanwhile, the regional food sufficiency levels for the same commodities are 402.16% (carabeef), 142.87% (chicken), 141.89% (pork), 95.71% (beef), and 95.71% (duck), correspondingly.

There were other livestock commodities that incurred losses in terms of number of heads, like carabao (-2.38%), goat (-4.17%), chicken broiler (-83.33%), chicken native/imported (-7.02%), and duck (-6.59%). The DA RFO 02 plans to employ and intensify implementation of development projects intended to increase the number of heads of livestock in the region as we expect approval of proposed higher budget and investment on livestock program in the succeeding years.

OTHER CROPS

Cagayan Valley's Performance, 2017-2019

Commodity	Production					Area					Yield				
	2017	2018	Growth (%)	2019	Growth (%)	2017	2018	Growth (%)	2018	Growth (%)	2017	2018	Growth (%)	2019	Growth (%)
Plantation Crops															
Banana	307,605.88	346,524.02	11.23	286,305.91	-21.03	25,454.00	25,472.00	0.07	25,468.00	-0.02	12.08	13.60	11.17	11.24	-21.01
Coffee	776.94	877.86	11.50	938.74	6.49	3,676.00	4,398.00	16.42	4,457.00	1.32	0.21	0.20	-5.89	0.21	5.23
Cacao	111.71	127.18	12.16	119.54	-6.39	656.60	711.60	7.73	723.60	1.66	0.17	0.18	4.81	0.17	-8.19
Mandarin	5,838.98	5,409.51	-7.94	5,446.46	0.68	1,352.00	1,352.00	0.00	1,351.75	-0.02	4.32	4.00	-7.94	4.03	0.70
Mango	48,625.01	47,506.55	-2.35	45,109.69	-5.31	10,250.00	10,242.98	-0.07	10,237.00	-0.06	4.74	4.64	-2.28	4.41	-5.25
Pineapple	34,983.53	38,778.01	9.79	36,056.37	-7.55	1,375.50	1,433.60	4.05	1,279.60	-12.04	25.43	27.05	5.97	28.18	4.00
Lowland Vegetables															
Ampalaya	5,751.49	5,177.73	-11.08	5,060.79	-2.31	969.01	934.45	-3.70	924.99	-1.02	5.94	5.54	-7.12	5.47	-1.27
Upo	8,536.75	7,722.09	-10.55	7,464.11	-3.46	730.17	712.87	-2.43	723.61	1.48	11.69	10.83	-7.93	10.32	-5.01
Squash	14,726.04	13,808.54	-6.64	27,291.61	49.40	2,086.56	2,025.58	-3.01	1,963.56	-3.16	7.06	6.82	-3.53	13.90	50.95
Stringbeans	14,726.04	13,808.54	-6.64	13,539.28	-1.99	1,733.63	1,688.13	-2.70	1,691.85	0.22	8.49	8.18	-3.85	8.00	-2.21
Tomato	10,895.11	11,056.03	1.46	10,934.73	-1.11	819.92	828.99	1.09	818.46	-1.29	13.29	13.34	0.37	13.36	0.18
Eggplant	20,277.79	18,764.65	-8.06	18,434.20	-1.79	1,827.59	1,817.90	-0.53	1,847.14	1.58	11.10	10.32	-7.49	9.98	-3.43
Lady's Finger	5,253.12	5,039.67	-4.24	5,165.74	2.44	612.68	593.12	-3.30	608.79	2.57	8.57	8.50	-0.91	8.49	-0.14
Native Petchay	6,533.09	6,276.21	-4.09	6,021.23	-4.23	904.96	892.37	-1.41	901.01	0.96	7.22	7.03	-2.64	6.68	-5.24
Upland Vegetables															
Broccoli	22.22	22.30	0.36	23.20	3.88	7.95	10.05	20.90	10.07	0.20	2.79	2.22	-25.96	2.30	3.69
Cabbage	1,665.23	1,476.49	-12.78	1,306.99	-12.97	223.11	226.13	1.34	208.38	-8.52	7.46	6.53	-14.31	6.27	-4.10
Carrots	596.71	618.65	3.55	634.57	2.51	90.86	91.65	0.86	93.08	1.54	6.57	6.75	2.71	6.82	0.99
Cauliflower	242.40	241.56	-0.35	245.24	1.50	86.09	86.09	0.00	87.38	1.48	2.82	2.81	-0.35	2.81	0.02
Habitchuelas	2,330.20	2,305.06	-1.09	2,193.44	-5.09	546.16	545.05	-0.20	543.12	-0.36	4.27	4.23	-0.89	4.04	-4.72
Chinese Petchay	187.40	209.23	10.43	200.21	-4.51	32.14	33.72	4.69	35.90	6.07	5.83	6.20	6.03	5.58	-11.26
Legumes															
Mungbean	7,817.64	7,345.99	-6.42	6,859.87	-7.09	13,853.24	13,678.40	-1.28	13,852.38	1.26	0.56	0.54	-5.08	0.50	-8.45
Peanut	3,141.49	3,181.90	1.27	3,109.58	-2.33	2,547.67	2,548.51	0.03	2,488.05	-2.43	1.23	1.25	1.24	1.25	0.10
Spices															
Garlic	542.22	551.40	1.66	558.32	1.24	124.81	126.18	1.09	130.63	3.41	4.34	4.37	0.59	4.27	-2.24
Ginger	5,214.90	5,239.98	0.48	5,168.75	-1.38	683.75	686.27	0.37	699.74	1.93	7.63	7.64	0.11	7.39	-3.37
Onion	8,663.92	8,854.17	2.15	8,880.36	0.29	711.42	713.21	0.25	718.50	0.74	12.18	12.41	1.90	12.36	-0.44

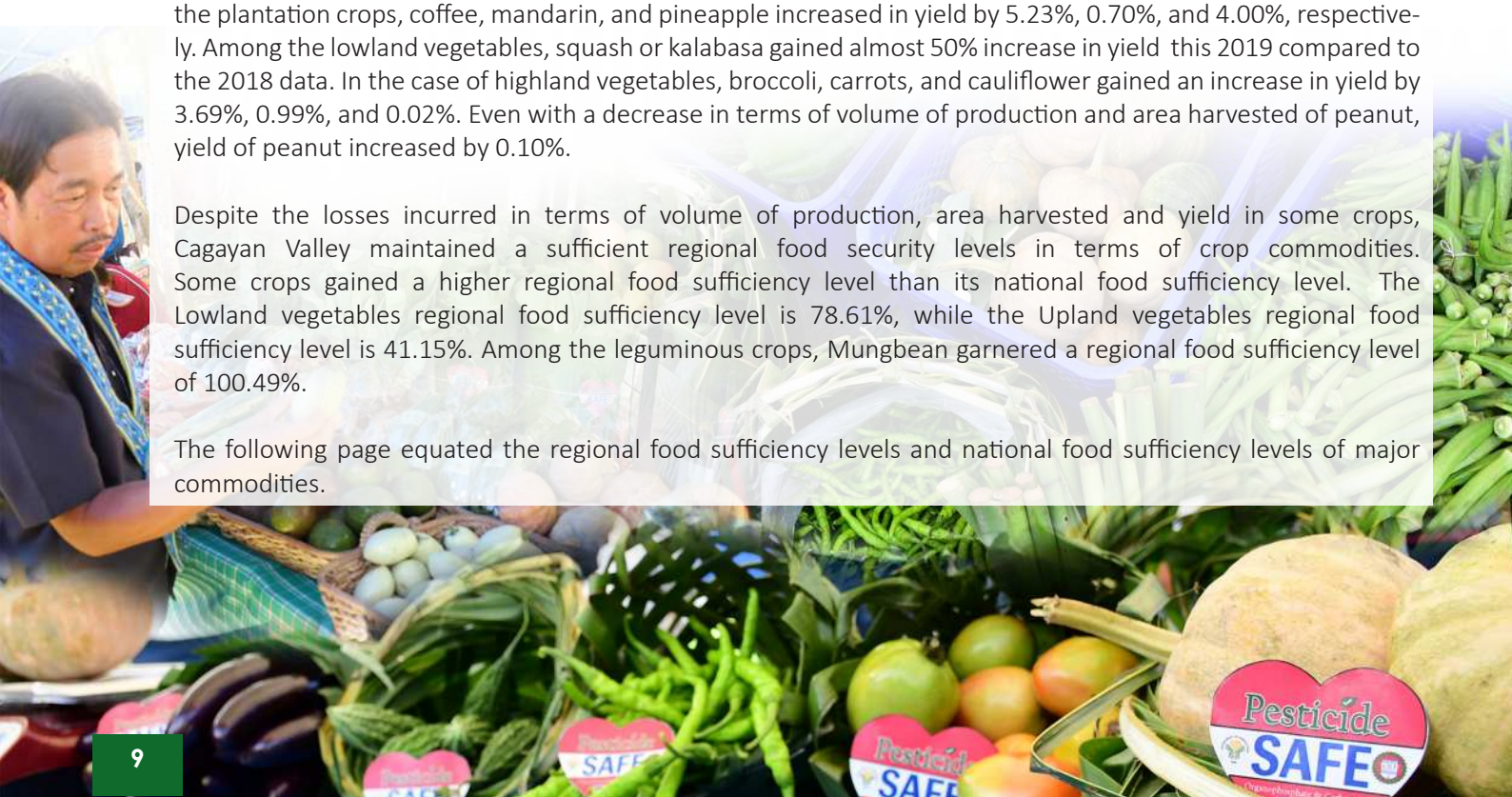
Source: PSA 2019

Aside from the leading crops of the region, palay and corn, Cagayan Valley also champions at various crops in terms of volume of production, area, and yield. Last 2018, the region was hit by various typhoons that caused losses in most crops in terms of volume of production, area harvested, and consequently, yield. However, by adapting the the 8 paradigms to level up agriculture in accordance with the directive of our DA Secretary William Dar, Cagayan Valley boosted and advanced its production of several high value crops and vegetables.

Various crops incurred an increase in terms of volume of production this 2019 as compared to the 2018 data. For the plantation crops, coffee, mandarin, and pineapple increased in yield by 5.23%, 0.70%, and 4.00%, respectively. Among the lowland vegetables, squash or kalabasa gained almost 50% increase in yield this 2019 compared to the 2018 data. In the case of highland vegetables, broccoli, carrots, and cauliflower gained an increase in yield by 3.69%, 0.99%, and 0.02%. Even with a decrease in terms of volume of production and area harvested of peanut, yield of peanut increased by 0.10%.

Despite the losses incurred in terms of volume of production, area harvested and yield in some crops, Cagayan Valley maintained a sufficient regional food security levels in terms of crop commodities. Some crops gained a higher regional food sufficiency level than its national food sufficiency level. The Lowland vegetables regional food sufficiency level is 78.61%, while the Upland vegetables regional food sufficiency level is 41.15%. Among the leguminous crops, Mungbean garnered a regional food sufficiency level of 100.49%.

The following page equated the regional food sufficiency levels and national food sufficiency levels of major commodities.



FOOD SUFFICIENCY IN MAJOR STAPLES (IN %), REGIONAL (2019)/NATIONAL (2018)

 277.04/86.17 Rice	 658.07/683.90 Corn	 425.32 Pineapple	 67.43/61.53 Onion
 8.44/9.02 Garlic	 78.04 Calamansi	 351.33 Mango	 342.18/100.05 Banana
 78.61 Lowland Vegetables	 41.15 Upland Vegetables	 47.7 Spices	 100.49 Mungbean
 142.87/93.63 Chicken	 95.71/99.28 Duck	 141.89/86.09 Pork	 95.71/60.99 Beef
 402.16/65.10 Carabeef	 41.01/99.97 Tilapia	 41.01 Tuna	 11.79 Roundscad

Source of Data: Derived from PSA 2019

Physical and Financial Performance by Program and Sub-Program (PREXC Accountability Report Card)

The CY 2019 Accomplishment Highlights of the Department of Agriculture Regional Field Office No. 02 outline the agency's achievements in terms of its delivery of goods and services to target beneficiaries and recipients of its programs for the period January to December 2019. In the attainment of the agency's organizational outcome of increasing the agriculture sector's productivity in the region, committed targets under the different programs/sub-programs were funded under the General Appropriations Act (GAA) of CY 2019 through the Banner Programs such as Rice, Corn, High Value Commercial Crops, Livestock, Organic Agriculture and Various Production and Support Services.

One of the major programs implemented is the Technical Support Services Program with the objective of increasing productivity and the level of crops, livestock and poultry production through the implementation of its Sub-Programs on Production Support Services, Market Development Services, Extension Support, Education and Training Services, and Research and Development Services.

As of December 2019, out of the 34,681 annual target, a total of 50,989 (147%) individual and group beneficiaries were provided with production support services focusing on improving productivity and sustainably boosting local production through the promotion and provision of modern, high-yielding and climate resilient seeds and planting materials, animals, and other similar interventions to farmers and other beneficiaries engaged in agricultural activities through the Local Government Units (LGUs) covering all five provinces and chartered cities in the region.

Individuals and groups provided with Production Support Services

PROGRAM	TARGET (NO.)	ACCOMPLISHMENT
RICE PROGRAM	30,449	44,595
CORN PROGRAM	2,620	2,943
HIGH VALUE CROPS PROGRAM	117	433
LIVESTOCK PROGRAM	226	560
ORGANIC AGRICULTURE PROGRAM	769	1,948
VARIOUS PRODUCTION SUPPORT SERVICES	500	510
TOTAL	34,681	50,989

125%
All Provinces provided with technical and support services by the RFO were satisfied

100%
All Provinces provided with production support services by the RFO validated the timely delivery of services

In line with its vision as the "Rice Industrialized Region" for the implementation of the Rice Program the 44,595 individual-beneficiaries were provided assistance to boost rice yield and production under the High-yielding Technology Adoption wherein a total of 717,924 kg. seeds of hybrid varieties were procured and distributed covering 39,884.72 ha., while for Inbred Seed Exchange, 32,360 kg registered seeds covering 1,618 ha. On top of the hybrid seeds distributed, 15-hectare production area was established to produce 30,020 kg registered seeds (RS), two (2) hectares were established to produce 6,380 kg seeds of traditional varieties and five (5) hectares to produce 11, 680 kg seeds of Green Super Rice (GSR) varieties.

Similarly, with its vision o f making "Cagayan Valley as the Premier Provider and Local Exporter of Refined Corn for Feed-Food Products in the Philippines" in the promotion of productivity enhancing and cost reducing technologies the Corn Program was able to satisfy the high quality seed requirements of 2,943 corn farmers in the entire region with a total of 51,366 kgs. both Certified and Registered Seeds together with 895,000 cassava seed pieces given to corn and cassava farmers in the region. Bio Control Agents (BCAs) such as Earwig, Trichogramma and Metharizium are produced in

support to the OPV white corn farmers, since OPV white corn plants are susceptible to Asian Corn Borer (ACB) that can significantly reduce grain yield and quality. A total of 2,776,800 earwigs and Tricho cards were distributed covering 6,772 ha.

The High Value Crops Development Program (HVCDP) envisions Region 2 to become self-sufficient in fruits and vegetables, affordable and safe to consumers. The program provided technical assistance to 433 group beneficiaries and distributed 44,609 kilogram (kg) of Open Pollinated and Hybrid Seed Varieties.

The Organic Agriculture Program with a vision of becoming a premier organic agriculture region in the country, through the six (6) DA Research Centers and Experiment Stations, duly certified by the Organic Certification Center of the Philippines- Inspection and Certification Services Inc. (OCCP-ICSI), produced and distributed 10,859 kg. of Organic Vegetable, Rice, and Corn Seeds in support to the organic practitioners and farms in the region.

The Livestock Program envisions Cagayan Valley as a major source of quality breeder stocks of cattle, goat, and sheep. Its aim is to propel economic growth in the countryside through increased production and income of the livestock farmers. To realize this vision, for CY 2019, there were 145 heads of Boer, Kalahari Red, Anglo Nubian, Saanen, Alpine, Bull and Heifer and 9,423 pcs. of semen straws distributed to multiplier farms and production farms. Moreover, stock infusion of purebred goat, cattle and sheep to contribute and help build-up the genetic make-up of existing animal breed. The program also focuses on Animal Health and Nutrition thru provision of 725,955 piece disease-free planting materials/seeds of forages in support to pasture development and animal production and provision of drugs and biologics of 253, 264 doses of Dewormer, Hemosept, Anthrax vaccines for the treatment and prevention of emerging and economically important animal diseases regionwide.

In response to Disaster Risk Reduction and Management, a total 9,540 kg registered seeds (RS), 1,477,465 kg certified seeds (CS), 210,266 kg seeds of Green Super Rice and other stopgap varieties and 1,520 kg seeds of traditional varieties were procured and distributed to calamity-affected areas in the region including 400 liters insecticide, 350 kg fungicide, 320 kg rodenticide, and 200 liters bactericide procured to mitigate and control pest and disease epidemic in the region. High quality corn seeds of 173,784 kg, open pollinated and hybrid varieties of vegetables seeds of 538 kg were made available to calamity-affected farmers in the region under the Quick Rehabilitation Response project.

Under the PSS-Market Development Services Sub-Program, a total of 39 out of the targeted 38 group-beneficiaries were provided with market development services which includes provision or facilitation of activities and services that support or promote the entry, sale, and consumption of agricultural product and by-products through easier access marketing information related to agriculture industry, value-adding activities to agricultural products , facilitate accessible, efficient, and well-organized marketing of agricultural products, and establishment of networking activities through conduct and participation to local and international agribusiness enterprise-related activities and trade fairs.

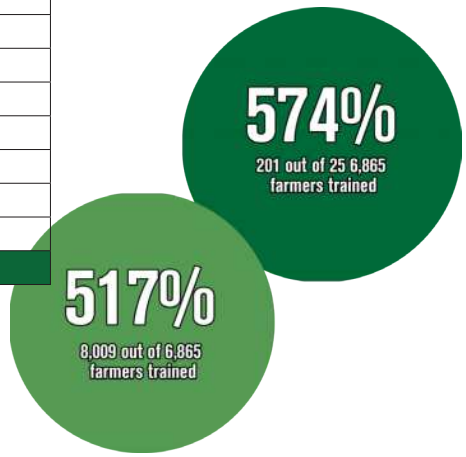
Group beneficiaries provided with Market Development Services

PROGRAM	TARGET (NO.)	ACCOMPLISHMENT
VARIOUS PRODUCTION SUPPORT SERVICES	38	39
TOTAL	38	39

For the agency's Extension Support, Education, and Training Services Sub-Program, a total of 201 out of targeted 35 LGU Extension Workers and 8,009 out of the targeted 6,865 farmers and other participants were provided with training support services. For the reported year, this Sub-Program exceeded its target beneficiaries by 474.29% and 16.66% for LGU Extension Workers and Farmers, respectively. These are services focused on the provision of training activities that cover a wide range of topics along the value chain such as production and post-production technologies, irrigation management, product standards, good agricultural practices, good aquaculture practices (GAP), good manufacturing and hazard analysis critical control point (HACCP), and other topics or subject matters that appropriately respond to the needs of the target clientele or a specific target area including strengthening capacity in climate change resilience and disaster risk management.

Number of Extension Workers trained to support the capacity of LGUs and farmers, fisherfolk, and other beneficiaries provided with Training Support Services

PROGRAM	TARGET (NO.)	ACCOMPLISHMENT
LGU Extension Workers Trained	35	201
RICE PROGRAM	25	182
HIGH VALUE CROPS PROGRAM	10	19
Farmers, Fisherfolks and other participants	6,865	8,009
RICE PROGRAM	4,440	5,061
CORN PROGRAM	2,085	2,272
HVC PROGRAM	240	377
HALAL PROGRAM	100	299
TOTAL	6,900	8,210



The Rice and Corn Program Model Farms facilitated transfer of technology to other farmers. Technology Demonstration on various technologies were established like the Watershed Development and Management to showcase the development of watershed areas in the Small Water Impounding Projects (SWIP); and Sustainable Corn Production on Sloping Areas (SCoPSA) to prevent soil degradation in sloping areas of the region and which is proven to help maintain the soil fertility and productivity; "Good Agricultural Practices" in support to food safety and others.

The project on Community-based Mushroom Production Project (CBMPP) which aims to showcase the use of rice straw as substrate for mushroom production. It makes a feasible income-generating activity for farmers and agri-based micro enterprises for women in rice-based, corn, and cassava farm households and communities.

Aside from awards, incentives were also given to Provincial Agriculturists, Municipal Agriculturists, Provincial Coordinators, Agricultural Technicians, Local Farmer Technicians under the Rice, Corn, Livestock, HVCDP and Organic Agriculture Banner Programs. These AEWs have been consistently providing assistance in the implementation of programs, projects, and activities in the Local Government Units (LGUs).

Radio and print media are also effective schemes to facilitate transfer of technology and information to farmers. Airing of radio programs, radio plugs, and jingles were conducted using the DWDA radio station while a total of 74,627 info-advocacy materials on Rice, Corn, High Value Crops, Livestock, and Organic Agriculture were produced and distributed to farmers, students, researchers, and other stakeholders.

Continuous conduct of Research and Development projects is being done in the region to develop and promote new technologies that will improve productivity and competitiveness of agriculture sector.

For CY 2019, there were 77 Research and Development Projects conducted, **17 completed**, **40 continuing and 20 new R & D projects**.

1. AWD Technology optimized water use without decreasing yield, saving farmers from consuming 16-35% irrigation water in SWIP rice-based areas.
2. Trichoderma harzianum applied at basal at 10 bags/ha control fungal diseases such as rice blast, and sheath blight in upland rice. Mode of application is through drenching and dilution to water for spraying.
3. Five (5) rice varieties were found to be adoptive to saline condition namely: SL-8H-3.33 MT/ha in WS and 3.40 MT/ha in DS; Bigante- 4.06 MT/ha in WS and 4.80 MT/ha in DS; RH 9000- 4.38 MT/ha in WS and 4.58 MT/ha in DS; GSR 8-3.46 MT/ha in WS and 3.50 MT/ha in DS and LP 205- 4.27 MT/ha in WS and 3.93 MT/ha in DS.
4. Crop diversification such as rice-mungbean increased income from Php 21,623.00 to Php 58,092.00 or 168.6% ROI while rice-watermelon increased income from Php 8,430.00 to Php 44,046.00 or 422% ROI.
5. Carrageenan on transplanted and direct seeded rice could increase rice yield from 15-40%
   Dosage: 3L/ha; 300ml per knapsack sprayer
   Mode of application: Spraying
   Yield: 9.10t/ha WS, 11.28t/ha DS
   Income: Php 90,359.30/ha WS, Php 151,677.80/ha DS
6. The use of Carrageenan can attain yield of 9.10 MT/ha during the WS and 11.28 MT/ha in DS with income of Php 90,359.30/ha in the WS and Php 151,677.80/ha in DS. The dosage of application is 3L/ha (300 ml) per knapsack sprayer.
7. Leveling implement – involves four-wheel drive tractors, leveling implements, and other different apparatus
   Average levelness variation: 50.72%
   Field capacity: 1.7 ha/day (depending on the size of the paddy, soil gradient and skill of the operator)
   Fabrication cost: Php 15,000.00
   Breakeven: 66.06 ha and can be recovered within 0.9 year
   Mode of operation: pull-type
8. Multi-purpose weeder retrofitted to a brush cutter
   Wetland: 0.55 ha/day with 92% weeding efficiency, payback period of 0.64 year and a return on investment of 155.47%
   Dryland: 0.86 ha/day with 89% weeding efficiency, payback period of 0.68 year and a return on investment of 153.08%
   Investment cost: Php 7,300.00
9. Mechanized bagging substrate for mushroom production – 170 bags/hr with 96% bagging efficiency.
10. Automatic irrigation – 1.5 gallons/hr with effective spray area of 2sq.m..
11. Products developed include Nana Oryza brown rice processed products, mushroom miki, and rice coffee.
12. Developed six (6) food products (silky sip, pansit, corn grits, corn coffee cereal drink and cracknic) out of white corn that are ready for technology transfer to agripreneurs of the region.

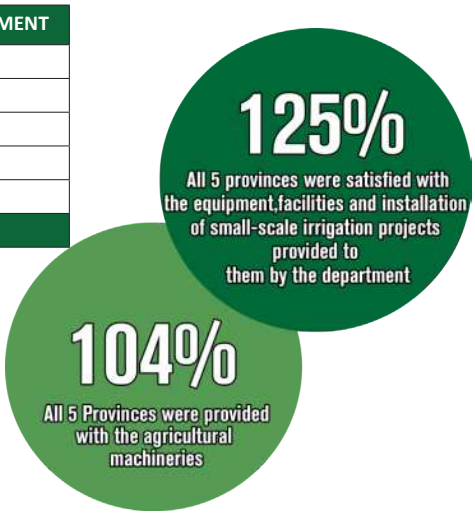
Silky sip, Pansit, Corn grits, Corn Coffee Cereal Drink and Cracknic

Another major program implemented by the agency is the Agricultural Machinery, Equipment, Facilities and Infrastructure Program (AMEFIP). This program aims to promote agricultural mechanization and competitiveness in the agriculture sector through the implementation of the Sub-Programs on Agricultural Machinery, Equipment, Facilities Support Services; Irrigation Network Services; and Farm-to-Market Roads.

For the committed targets of the three sub-programs, there were 945 out of 932 groups or 101.4% provided with various production and postharvest-related machineries and equipment, and construction/upgrading of facilities and other infrastructure.

Groups Beneficiaries provided with Agricultural Machinery, Equipment, Facilities and Infrastructure Program

PROGRAM	TARGET (NO.)	ACCOMPLISHMENT
RICE PROGRAM	175	175
CORN PROGRAM	105	105
HIGH VALUE CROPS PROGRAM	640	671
LIVESTOCK PROGRAM	5	11
ORGANIC AGRICULTURE PROGRAM	7	7
TOTAL	932	969



In the provision of farm production-related machinery, a total of 69 AMTEC-tested 4-wheel drive tractors, precision seeder, transplanter, mechanical weeder, combined harvester, forage chopper/harvester, vegetable seeders and mini chainsaw were distributed to Farmer Cooperatives and Associations (FCAs) under this project.

Postharvest Machinery and Equipment totaling to 1,163 units of recirculating dryer, grain collector, hammer mill, and cassava chipper, shredder, fermentation box and plastic crates were given to 55 Farmer Cooperatives and Associations (FCAs) under this project.

Moreover, for the provision of postharvest facilities, there were 672 units of Multi-purpose Drying Pavement (MPDP), greenhouse, nursery, and school gardens provided to same number of Farmer

Cooperatives and Associations (FCAs). Seed money to support the business operation of the FCAs for rice processing centers (RPCs) of P 1,000,000.00 each were provided to one (1) FCA in Cagayan and one (1) FCA in Nueva Vizcaya.

As supplemental irrigation for rice, corn, and other high-value crops to boost productivity especially in areas deemed too small to be served by the National Irrigation Administration, a total of 662.8 hectares service areas was generated from the establishment and installation of one (1) Small Water Impounding Project, 2 Diversion Dams and two (2) Solar Powered Irrigation System. More areas are expected to be served when the six (6) on-going/remaining Small Scale Irrigation Projects (SSIPs) will be completed.

Number of hectares of service areas generated from the establishment and installation of Small Scale Irrigation Projects (SSIPs)

PROGRAM	TARGET (NO.)	ACCOMPLISHMENT
RICE PROGRAM	1,667	277
CORN PROGRAM	50	250
HIGH VALUE CROPS PROGRAM	56	135.8
TOTAL	1,873	662.8

To ensure the transport of agricultural products within and outside the production areas, reduce post-harvest losses during the transport of farm produce, promote agricultural related activities, and increase farmers' income, the construction and/or rehabilitation of the Farm-to-Market Roads is funded under GAA. For CY 2019, a total of 46.17 kilometers of roads for construction/rehabilitation were validated, geotagged, and monitored.

Number of kilometers of Farm-To-Market Roads Validated for Construction/ Rehabilitation

PROGRAM	TARGET (NO.)	ACCOMPLISHMENT
FARM-TO-MARKET ROAD NETWORK SERVICES (Km)	46.17	46.17
PERCENTAGE OF DPWH-CONSTRUCTED FMRS MONITORED (%)	100	100

Overall, in the implementation of the Technical Support Services Program and the Agricultural Machinery, Equipment, and Infrastructure Program (AMEFIP) for CY 2019, the beneficiaries were satisfied with the two (2) major programs in terms of the quantity, quality, and timeliness in the provision of goods and services.

100%
Validated FMRs for construction/rehabilitation

Financial Performance

MFO/PROGRAMS/PROJECTS	OBLIGATION ('000)	DISBURSEMENT ('000)	PERFORMANCE (%)
PROGRAMS			
I. General Admin. & Support Services (GASS)	61,636.00	55,214.00	90
II. Support to Operations (STO)	595,751.00	538,860.00	90
III. Operations			
NATIONAL RICE PROGRAM	859,670.00	798,935.00	93
NATIONAL CORN PROGRAM	68,927.00	61,557.00	89
NATIONAL HIGH VALUE CROPS PROGRAM	135,831.00	131,000.00	96
NATIONAL LIVESTOCK PROGRAM	97,709.00	93,652.00	96
NATIONAL ORGANIC AGRICULTURE PROGRAM	22,684.00	22,450.00	99
VARIOUS OPERATIONS (MDS, PSS, R&D)	647,071.00	632,157.00	98
MFO4. Farm to Market Roads Network Services	4,589.00	3,196.00	70
MFO6. Agriculture & Fishery Regulation Services	10,736.00	10,596.00	99
TOTAL CURRENT APPROPRIATIONS	2,504,604.00	2,347,617.00	100
AUTOMATIC APPROPRIATIONS	12,124.00	12,124.00	100
TOTAL APPROPRIATIONS	**2,516,728.00**	**2,359,741.00**	**94%**

The Department of Agriculture Regional FIeld Office No. 02 has been consistently a top performer when it comes to financial utilization. For CY 2019, the Financial Performance is at 94% of the total appropriation of P2,516,728.00. Most of the projects that were not completed like the Farm-to-Market Roads (70% performance) and infrastructure component of the different programs were fund-transferred and implemented through a Memorandum of Agreement (MOA) with other agencies and partner Local Government Units (LGUs).

Agriculture in Region 02 aligned with the

8 PARADIGMS TO LEVEL UP AGRICULTURE

Our Milestone to Level Up Agriculture in Region 02

1. Clustering of Rice Farmers: A Better Option in Raising Overall Productivity
2. Cagayan Valley's Pride: OPV White Corn Sustaining its Development as an Industry
3. Mangi Maxi: Leading the Development of White/Pigmented Corn Industry
4. Cagayan Valley towards "Coffee Cupping"
5. Genetic Improvement Project towards Livestock and Poultry Industrialization
6. Sustaining Compliance to the Phiippine National Standard on Organic Farming
7. R4D: Modernizing Agriculture thru Utilization of R&D Results
8. DARFO 02 Response to as Food Safety: RTK, GAP and GAHP
9. The Cagayan Valley Integrated Agricultural Laboratories (CVIAL) Paves its way Towards Food Safety and Security
10. Institution of Business Opportunities for Agri-Fishery Enterprises in Region 02
11. Adaptation and Mitigation Initiative in Agriculture-Climate Resilient Agri-Fishery Tehcnology-Based Enterprise (AMIA-CREATE)
12. Philippine Rural Development Project (PRDP)

CLUSTERING OF RICE FARMERS: A Better option in Raising Overall Productiviy

Cagayan Valley is basically an agricultural region with rice production area of 582,883 hectares (PSA, 2019). Region 02 ranks second place in terms of production with 2,644,702.34 Metric Tons (MT) or 14.08% contribution to the Philippines rice production of 18,814,827.29 MT in 2019. The region however ranks number one in surplus, with a sufficiency level of 277.04% contribution in the country. For the past number of years, the regional production is three times more than the requirement of its population that is why most of the rice production in the region is supplied to nearby regions and Metro Manila which makes Cagayan Valley Farmers local rice exporters in the Philippines.

Anchored with a program vision of "Rice Industrialized Region" to help attain food-secured Philippines by increasing rice productivity (ANI) and by developing rice-based entrepreneurs (KITA), the Department of Agriculture Regional Field Office No. 02 (DA RFO 02) implemented various strategic projects and interventions by increasing at least 3% growth rate annually. For the rice industry sector, these interventions encompass a holistic value chain approach anchored with stable and reliable support services and harmonized enabling policies.

In a bid to make Region 02 rice farmers become competitive with other ASEAN countries the passage of the Trade Liberalization or the Lifting of Imports Quantitative Restrictions (QR) of Rice posted a big challenge for the rice industry not only in Cagayan Valley but in the entire country. Clearly, rice farming has to become more efficient and reliable to sustain the interest of the farmers in rice production ventures.

The DA RFO 02 has seen the Rice Model Cluster Projects cum technology showcase on Mechanized Farming and Research Breakthroughs on rice, with interventions on High Yielding Technology Adoption for Hybrid Rice (HYTA-HR) as significantly contributory in the attainment of a more efficient rice production venture and a food-secured region amidst adversities.

With the introduction of the Rice Model Cluster in the region, showcasing the HYTA-HR and other related interventions, farmers are equipped with the knowledge and skills for them to be competitive rice producers, producing more at an optimum expenditures with the support technologies at various stages of crop growth like seeds, machineries, irrigation, and posthar-vest cum credit facilitation. For CY 2019, there were 9,822 hectares Hybrid Rice Model Farms with 12,191 farmers and 1,507 hectares Inbred Rice Model Farms with 1, 944 hectares that were established in the region.

HYTA-HR Field Day, Mabini, Gamu, Isabela

In Cagayan Valley, we are getting 4.73MT/Ha in irrigated areas, but with the adoption of high quality seeds, farmers were able to increase their yield up to 10MT/ha. One of the contributory factors in the attainment of a food-secured Philippines is the use of hybrid rice technology. This technology has been proven to increase yield by as much as 15-30% (Philrice data). But despite the added supply contributed by the cultivation of hybrid rice, the country is still lacking rice supply. The introduction of hybrid rice seeds coupled with other interventions such as technology demonstration cum mechanization, technical assistance and other related interventions has significantly increased its production in Region 02.

Hybrid seed utilization accounted only about 43% of the total irrigated areas, and since we are aiming for a rice-secured Philippines, the DA is continuously pushing for hybridization through HYTA-HR as one of the interventions to increase production of farmers.

Through the HYTA-HR project, qualified farmer/organizations-beneficiaries were provided with hybrid seeds on "Grant-Recovery Roll-Over Scheme". The project aimed to increase the beneficiary competitiveness on a roll-over scheme, sustain level of production of hybrid rice producing areas, help increase marginalized farmers' income, and increase area to be hybridized in Wet and Dry Cropping Seasons.

This was proven with the success of the HYTA-HR project in the cluster area particularly in Gamu, Isabela through the Baro a Langa iti Mannalon Farmers Association of which, a feature story is attached. The project was anchored on a Public-Private Partnership (P3) concept which was spearheaded by the DA RFO 02 in tandem with Local Government Units of Gamu, Isabela, and private companies that started in CY 2015-2018 Dry and Wet Season and up to the present.

The DA RFO 02 provided hybrid seeds to the qualified associations and/or recipients without cost (grant) and distributed to its member on a "Plant Now, Pay Later" scheme.

HYTA-HR Field Day, Mabini, Gamu, Isabela

The farmer-recipients were provided with one (1) bag hybrid seeds at 15-18 kg per hectare (ha). A maximum of two (2) bags of seeds good for two (2) hectares per farmer were provided regardless of landholding. Varietal preferences of farmer-beneficiaries were considered.

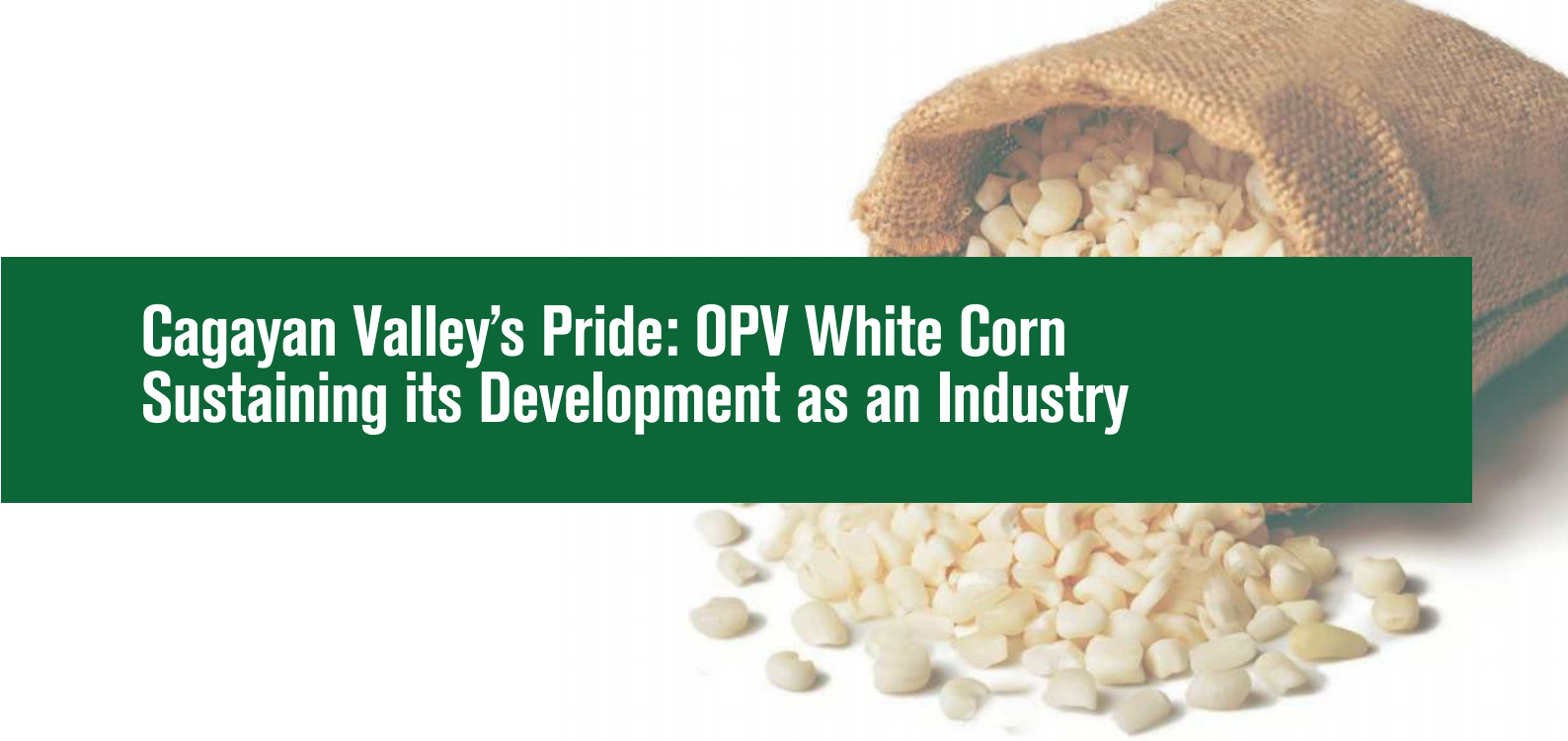
As per Memorandum of Agreement (MOA) signed by the HYTA-HR implementers, the farmer -beneficiaries were obliged to enroll to the Rice Crop Manager (RCM) Advisory System or Soil Analysis as basis in fertilizer management. All the qualified recipients are required to implement the project in accordance with the set of guidelines.

As regards to the procurement, positioning, and warehousing of seeds, the DA RFO 02 procured the seeds in accordance with the RA 9184 and facilitated the delivery and positioning of the seeds from the supplier to the designated drop-off points in every province.

Good Agricultural Practices (GAP) on rice is another important component of technologies in a Rice Model Cluster of which 27 certified farms were already certified in the region for 2019. GAP approach aimed at applying available knowledge in addressing environmental, economic, and social sustainability dimensions for on-farm production and post-production processes, resulting in safe and quality food and non-food agricultural products.

With the serious implementation of GAP and organic practices, the access to institutional buyers coupled with tangible transaction materialized. One concrete evidence on this concern was the marketing linkage facilitated by the Agribusiness and Marketing Assistance Division (AMAD) between the CAVOFAMCO in San Mateo, Isabela and Sunnywood Corporation in Pasig City during the 1st quarter of CY 2019. The cooperative sold as much as 15/MT Black Rice at Php59.00/kg to Sunnywood. The transaction gained an additional income of Php135,000.00 at a farm gate price of Php50.00/kg on the part of the cooperative.

Supporting our research agenda on rice, through the help of the Research and Development Division, various award-winning research breakthroughs at the national level were completed and ready for mainstreaming at the farmers level in the next years to come.



Cagayan Valley's Pride: OPV White Corn Sustaining its Development as an Industry

Cagayan Valley is still the 1st rank Corn Producer in the entire Philippines, contributing about 1,866, 918.34 (mt) or equivalent to 23.40% share to the total corn production of 7,878,844.55 (mt) in the country for 2019 (PSA Data). Cagayan Valley is also the only region that is producing and breeding varieties of OPV White Corn and has reported a total of 658% Sufficiency Level on White Corn underscoring the region's role of critical importance to the attainment of the Administration's goal for food security

The Department of Agriculture Regional Field Office No. 02 undertakes all efforts and initiatives in sustaining the development of Open Pollinated Varieties for White Corn. The Seed System for OPV White Corn was established in the region to ensure production and maintenance of seed stock of Breeder, Foundation, Registered and Certified Seeds. These are being produced in the different Research Centers and Experiment Stations of the Department in Cagayan Valley. The Cagayan Valley Research Center (CVRC) serves as the main station producing Foundation seeds and new varieties of OPV white corn while the Quirino Experiment Station (QES), Nueva Vizcaya Experiment Station (NVES), Isabela Experiment Station (IES) and the Northern Cagayan Experiment Station (NCES) are producing Registered and Certified seeds. For CY 2019, a total of 5,102 kg registered OPV corn seeds were produced and distributed to 252 farmer-beneficiaries (FBs), 30,070 kg of certified seeds to 1,679 FBs and 16,575 kg of certified glutinous seeds to 915 FBs.

The program for the CY 2019 had successfully achieved its production targets by producing 255 bags foundation OPV white corn (glutinous and flint) and distributed to 252 accredited seed growers in the region. The stations were able to produce 2,332 bags OPV white corn seeds which were distributed to 2,594 corn farmers to cover 2,332 hectares in the different provinces in Region 02.

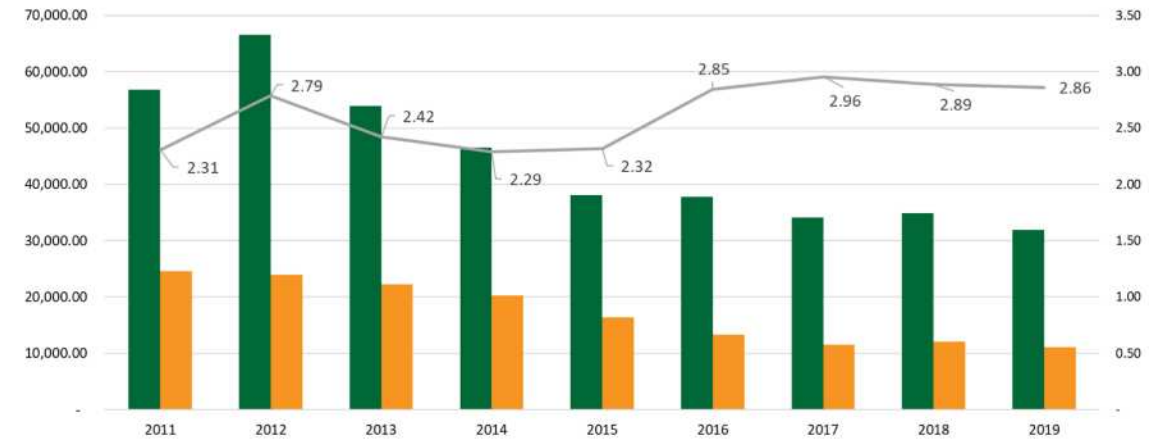
"Cagayan Valley as the Premier Provider and Local Exporter of Refined Corn for Feed-Food Products in the Philippines"

With its vision, the promotion of white corn as alternative staple food is seen to reduce dependency on rice. The increased consumption of white corn is expected to reduce rice consumption and contribute to food security. In order to attain its vision, the program focuses on the attainment of its objectives to increase productivity from 2.53 MT to 2.86 MT, to improve quality of production, and to reduce post-harvest losses.

Strategies to Address the Program Goals and Objectives:

1. Promotion of productivity-enhancing and cost-reducing technologies;
2. Enhancing farm mechanization and post-harvest facilities to reduce losses and to improve quality;
3. Research and Development to improve productivity and quality;
4. Enhancing market development services;
5. Strengthening of support to GAP Certification towards ASEAN competitiveness;
6. Adaptation to climate change; and
7. Advocacy for Sustainable Corn Production on Sloping Areas (SCOPSA).

2011-2019 ACTUAL PRODUCTION, AREA HARVESTED AND YIELD



The continous conduct of 12 Research and Development studies for white corn to develop new technologies show the commitment of the department. Matured technologies are being showcased to corn farmers thru the establishment of three (3) Corn Model Farms located in Sta. Maria and San Pablo, Isabela; and Solana, Cagayan covering a total area of 125 hectares with 132 farmer cooperators.

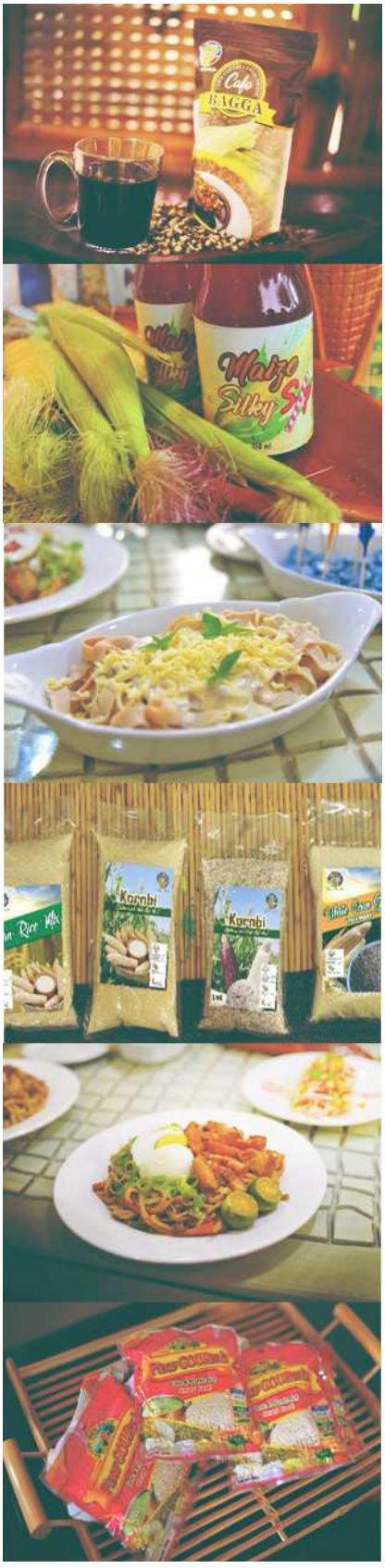
It is also through Research and Development where the department has developed six (6) food products (silky sip, pansit, corn grits, corn coffee cereal drink and cracknic) out of white corn that are ready for technology transfer to agripreneurs of the region.

Sustainable Corn Production on Sloping Areas (SCoPSA) is also being practiced to prevent soil degradation in sloping areas of the region, it is proven to help maintain the soil fertility and productivity.

Food safety is an important concern in sustaining the white corn industry since it is mainly used for food. To address this threat, there is an urgent need to inform our farmers through the conduct of training on "Good Agricultural Practices for Corn (GAP – Corn)". With this, 10 GAP Corn Training batches were conducted throughout the region with 300 corn farmers informed and out of these, 82 farmers were GAP Certified.

Bio Control Agents (BCAs) such as earwig, trichogramma and metharizium are produced in support to OPV white corn farmers since, OPV white corn plants are susceptible to Asian Corn Borer (ACB) that can significantly reduce grain yield and quality. A total of 29,515,000 earwig pieces, 451,500 tricho cards 529 kg metharizium were distributed to 2,052; 4,606; and 66 farmer-beneficiaries, respectively, covering 6,772 has.

As part of climate change mitigation for corn, 50 Open Source Pumps (OSP) were distributed covering an area of 250 hectares benefiting 50 farmer group-beneficiaries. The OSP helped the groups in their irrigation activities during the occurrence of drought.



To promote the consumption of white corn food, the Department of Agriculture Regional Field Office No. 02 through its Agribusiness and Marketing Division conducted five (5) business meeting among corn producers, processors and traders to present rice – corn blend to institutional buyers. Also traders presented their monthly requirements and their buying price which is Php 15 and Php 18 for dry white flint and white glutinous, respectively.

Mangi Maxi: "Leading the Development of White/Pigmented Corn Industry"

The Technology Commercialization of Developed Food Products from the Cagayan Valley Research Center (CVRC) Open-Pollinated Varieties (OPV) White and Pigmented Corn is a collaboration project of the Department of Agriculture – Cagayan Valley Research Center (DA-CVRC) located in San Felipe, City of Ilagan, Isabela and the Bureau of Agricultural Research (BAR).

It was implemented with the end goal of increasing the income of the marginalized white corn farmers and improving the value of white corn grits in Region 02. The project paved the way for a DTI-IPO registered food products out of white and pigmented Open Pollinated Variety (OPV) which were developed and registered as Mangi MAXI brand with products namely: Cafe Bagga, Cracknic, Kornbi, Rice-Corn Mix, and White Corn Grits.

Mangi Pansi (White and Purple Corn Noodles), which can be cooked as pancit guisado or used as pasta, Cracknic (crunchy glutinous corn binatog), Café Bagga (Corn Coffee), Corn-Rice Mix, White Corn Grits (pure corn grits), and Kornbi (Glutinous and White Flint Corn Grits). The products' names/brand will carry and encourage revival of traditional corn (mangi) food products in support to the proclamation of the City of Ilagan as "Corn Capital of the Philippines."

Mangi Pansi has two (2) variations—the white and purple corn noodles (which contain natural coloring from purple amaranth). Cracknic is a variation of the traditional cornick, using corn grits instead of whole corn kernels, giving it its distinct crunch and texture. Café Bagga (corn coffee) is a traditional drink in Cagayan Valley. Aside from the brewed coffee, the roasted corn grits can be consumed as cereal, making it similar to popular cereal drinks. Corn-Rice Mix, Kornbi, and White Corn Grits are blends of rice-corn, glutinous and flint corn, and pure white flint which have been blended according to the preference of consumers. These three products aim to promote the consumption of corn grits in addition to rice as staple food, addressing the shortage of rice in the country and reducing rice imports. The purple pigmentation of some of the OPV gives it its distinct purple color.

The developed food products are the product of rigorous trials of Research & Development. To be able to effectively communicate the product description, contents, and benefits, the labels were subjected to several evaluations, revisions, and improvements. The designs were submitted to DOST for evaluation and for checking whether they adhere to the safety standards for food packaging. The center is also continuously seeking techniques to improve the shelf life of the products.

There are currently two partner-processors for the OPV white corn products—the Sta. Maria Green Ladies Organization and Cabisera 18 Farmers Cooperative. These groups of farmers have been capacitated in terms of training on sound production and processing, packaging and labelling, and financial and production management systems. Furthermore, beneficiaries were granted equipment for processing of Mangi MAXI products

The development of Mangi MAXI products has increased the value of white corn through product transformation, increasing the farmers' net income from P14,378 to P47,647 for white flint, and P48,506 to P104,998 for glutinous corn. This innovation on white corn are being appreciated by the consumers who tried them. Furthermore, the technology for the production of the developed food products is becoming attractive to farmer-processors due to its potential for marketing and as business enterprise. The different technologies and interventions increased the value of white corn grits up to 400% thus making it a profitable business enterprise for potential processing partners.

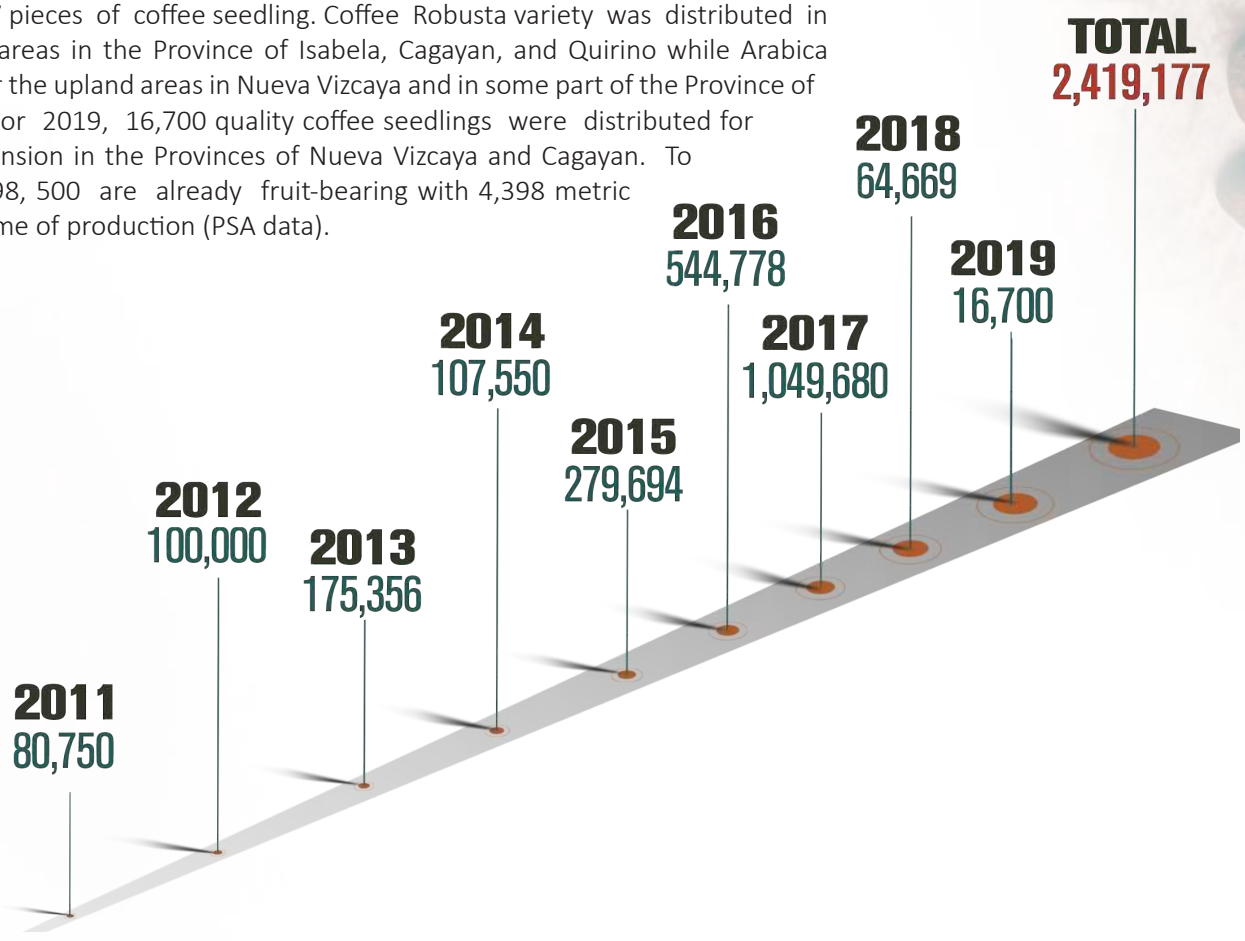
Cagayan Valley towards "Coffee Cupping"

Coffee is the world's most popular drink. Eight out of ten adults drink an average of 2.5 cups of coffee every day. The Philippines ranks number five (5) highest consumer of coffee in the world. Our total consumption is 4,775,000 at 60 kg/bag while the total production is only 475,000 at 60 kgs/bag.

Coffee industry is gaining back its glory in Region 02. In the 80s, truckloads of coffee beans were produced in the region especially in the Provinces of Quirino and Nueva Vizcaya. However, the industry weakened due to the price drop of coffee beans from P18.00 to P 1.00 per kilogram. This prompted the coffee farmers to drastically cut their trees and ventured into other crops.

In 2011, through the convergence initiatives by the Department of Agriculture, together with other government agencies, the revival of the coffee industry was initiated. Through the High Value Crops Development Program (HVCDP), coffee was included in the priority interventions of DA RFO 02. Various support programs had been done such as the creation of the Coffee Industry Council that advocates the establishment of Agri-tourism Farm, the accreditation of processing facilities to the Food and Drugs Administration (FDA), distribution of planting materials and farming inputs to support the establishment, and maintenance of coffee plantations, procurement and provision of a controlled release fertilizer with micro elements for coffee trees to double the yield and improve bean quality, construction of nurseries with 10,000 pieces of coffee seedling capacity, spring development and solar powered irrigation for the coffee farms since water is seen very critical especially in newly planted seedlings, provision of coffee facilities for value adding and enabling farmers to process their green coffee beans to ground coffee to increase their income, including postharvest materials, depulper, dehuller, roaster, and packaging equipment for the coffee.

In fact, some of the distributed planting materials are now in bearing stage. In a span of nine years, from 2011 to 2019, the HVCDP distributed a total of 2,419,177 pieces of coffee seedling. Coffee Robusta variety was distributed in lowland areas in the Province of Isabela, Cagayan, and Quirino while Arabica variety for the upland areas in Nueva Vizcaya and in some part of the Province of Quirino. For 2019, 16,700 quality coffee seedlings were distributed for area expansion in the Provinces of Nueva Vizcaya and Cagayan. To date, 1,598, 500 are already fruit-bearing with 4,398 metric tons volume of production (PSA data).



The thriving coffee industry in the Cagayan Valley Region has gained a reputation as the coffee trees in Nueva Vizcaya Experiment Station (NVES) garnered certifications from the Bureau of Plant and Industry (BPI), through the National Seed Quality Control Services Division (NSQCSD). The NSQCSD Certification proves that the coffee trees underwent thorough quality assurance and control services methods for seed and planting material production, processing, storage and distribution, seed research and seed training in seed quality control towards sustainable agriculture and environmental protection.

The HVCDP in collaboration with DTI-RO2 after conducting Brand Launching of 11 products namely Quirino Mountain Blend, DISA-DECO Coffee, GAMAFA Coffee, Nueva Vizcaya Blend, Cool Mist Coffee, Cafe Sta. Fe, Ambaguio Finest Coffee, Claveria Seabreeze Coffee, Barako Boy Coffee, Collagen Coffee and Angadanan Robusta Coffee had successfully showcased Cagayan Valley Coffee at its finest with a Coffee Cupping Ceremony which means in its simplest, tested and passed the criteria in terms of taste, flavor, aroma quality, and other potentials of a quality coffee.

Indeed, Region 02 has started to make a name in the Coffee Industry. And if you happen to pass-by Cagayan Valley, why not stop and have a “Coffee Cupping” time with your company.

Genetic Improvement Project towards Livestock and Poultry Industrialization

The Livestock Program envisions Cagayan Valley as a major source of quality breeder stocks of cattle, goat and sheep. Its aim is to propel economic growth in the countryside through increased productivity and income of the livestock farmers.

In Cagayan Valley, the genetic background of existing native animals such as cattle, pig, chicken, goat, and native sheep are generally characterized with slow growth rate, low litter size, low calving/kidding rate, and low carcass yield. Based on the available data in the Philippine Statistics Authority (PSA), animal population inventory from 2015 to 2018 recorded low growth rate and declining trends on population with high extraction rate of up to 17% and most of the numbers of livestock population, according to PSA, are found at the backyard level. Every household utilizes very little resources, poor nutrition, and farm management. As a result, productivity is generally low. They are often raised under primitive conditions, without any housing, and are surviving by scavenging for naturally occurring feeds (grasses, insects, worms and other edible plants and animals), fallen grains, native pasture, and household refuse (Lambio 2005). There is also no systematic breeding management therefore, the backyard sector tends to suffer from diseases, insufficient feeding, lack of housing, and inbreeding (Dwinger et al. 2001; Minga et al. 2001; Conroy 2004; Lambio et al. 2004).

Years ago, genetic materials are not accessible and very limited to raisers, particularly for goat, sheep, and cattle breeders. Limited number of players are into artificial insemination (AI), Buck/Bull Loan Program and other means of genetics improvement because raisers have been contented with the genetic materials readily available from their ancestors and therefore only exhaust the resources they have instead.

For such reason, the Department of Agriculture is putting more focus to genetic improvement and enhancement of livestock production with collaborative partnership with the Local Government Unit, stakeholders, and other attached agencies thru massive Artificial Insemination, Breeder Loan Program, Maintenance and Upgrading of Nucleus Farms for Genetically superior breeds of goat, cattle, and sheep for Cagayan Valley in support to Multiplier Farms and production farms. Moreover, stock infusion of purebred goat, cattle, and sheep to contribute and help build-up the genetic make-up of existing animal breed. The program also focuses on Animal Health and Nutrition thru provision of seeds/planting materials of forages in support to pasture development and animal and provision of drugs and biologics for the treatment and prevention of emerging and economically important animal diseases.

The Cagayan Small Ruminants Association (CSRA) is one of the recipients of the various interventions under the Genetic Improvement Project particularly on Artificial Insemination, Animal Health Services and Breeder Loan Program which lead the organization to boost production and to engage in more livestock agri-business. Mr. Jack Jurado, President of CSRA, extends gratitude for the unending support of the Department of Agriculture in providing genetically superior breeders stock for the organization. The organization has 60 active members with individual farms and most of the breeders they have now are from the nucleus farm of the department which is the sole source of purebred goat, sheep, and cattle. Aside from that, the officers and members also enjoy the services in bringing genetic materials particularly those members living in far flung areas through the Artificial Insemination Project, the safest and easiest way of upgrading native animals to in higher carcass yield and higher economic value. This year, the DA RFO 02 initiated to conduct hands-on training for silage making to the said organization, and conducted a consultative meeting to assess their needs as basis in allocating funds.

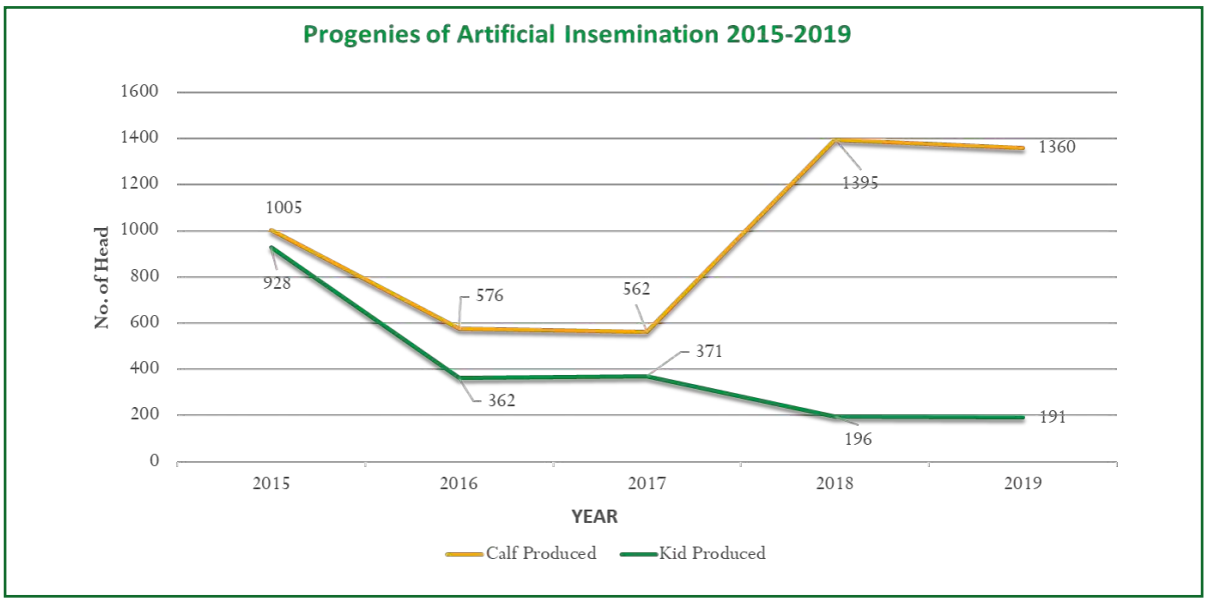
In as much as the animal nutrition is concerned, the said organization is a consistent recipient of planting materials of improved forages such as napier, mulato, star grass, and other grasses with high nutritive value for the establishment of improved pastures of each member.

The efforts poured to them brought a positive business enterprise coupled with strong market linkages wherein members of the CSRA is now the top producers of chevon, mutton, and breeder stocks. If a visitor wishes to buy breeder animal, the CSRA is highly recommended by goat raisers in the province. These are just manifestations that the various interventions when properly implemented will gear the livestock industry to move forward and change farmers' lives in the region.

Among the major activities of the Livestock Program contributory to genetic improvement and total development of the livestock and poultry industry in Cagayan Valley are as follows:

THE UNIFIED NATIONAL ARTIFICIAL INSEMINATION PROJECT

Unified National Artificial Insemination Program is a proven strategy to breed improvement in livestock and poultry. Cattles and goats are the target commodities for artificial insemination on livestock in Region 02. The Department of Agriculture, through its Animal Production Unit under the Livestock Program Office, has made artificial insemination a strategy to breed improvement on the said commodities. It aims to increase population of quality breeder stocks of cattle and goats in the region, provide cattle and goat raisers opportunity for acquisition of quality breeds and new bloodlines for cattle and goat, and constitute quality breeder population free of exotic disease.



The graph above shows the yearly accomplishment of calf drop and kid drop produced for the year CY 2015 to 2019. In CY 2018, highest calf drop produced was recorded with a total of 1,395 heads of cattle and CY 2015 recorded the highest number of kid drop with a total of 928 heads of goat.

MAINTENANCE OF NUCLEUS FARM AND BREEDER LOAN PROJECT

The Department of Agriculture has established and maintained four (4) nucleus farms in the four (4) provinces in the region which serve as source of purebred and genetically superior breeder stocks for the improvement of phenotypic and genotyphic of native and upgraded animals such as goat, cattle, and sheep to increase productivity. Moreover, these stock farms serve as learning sites where raisers are capacitated on production and management practices to increase income.

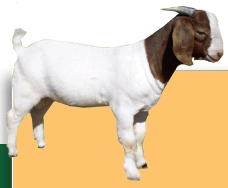
Nucleus Farms composed of the (1) DA-Nueva Vizcaya Experiment Station (NVES) in Villaros, tBagabag, Nueva Vizcaya, tagged as the nucleus farm for dairy goats where qualified applicants can obtain dairy goat breed namely; anglo nubian, saanen, and French alpine. The station was able to produce 79 heads of anglo nubian five (5) heads of saanen, and six (6) heads of French alpine for the year CY 2019 and distributed 29 heads anglo nubian, three (3) heads saanen, and two (2) heads French alpine with two (2) multiplier farms and 25 buck loan recipients.

Southern Cagayan Research Center-Cagayan Breeding Station in Maguirig, Solana, Cagayan promotes goat meat and chevon utilization. For CY 2019, the station produced 35 heads of Boer and 22 heads of Kalajari Red, distributing 14 and 12 heads, respectively, to 22 recipients

The Isabela Experiment Station in Upi, Gamu,Isabela is the identified nucleus farm for sheep and has produced 115 heads of quality breeder sheep of the St. Croix, Katahdin, white dorper and black dorper breeds. A total of 100 heads of quality breeders were released out to qualified breeder loan applicants.

DA-Quirino Experiment Station (QES) in Dungo, Aglipay, Quirino tagged as the Nucleus Farm for Brahman Cattle, a beef type cattle, produces quality breeders of cattle of the brahman breed. Production and distribution of quality brahman cattle breeders by the station was recorded at 19 and 17 heads, respectively.

BREEDER STOCK DISTRIBUTED UNDER BREEDER LOAN PACKAGE (BLP)



Goat 289

Sheep 290

Cattle 48

BLP RECIPIENT

Rafael Mark Acosta
Bagabag, Nueva Vizcaya
Breed: Saanen

Angelito Lacadin
Bayombong, Nueva Vizcaya
Breed: Anglo Nubian

Amado Gafffud
Echague, Isabela
Bull Loan recipient

On-farm monitoring of loaned animals with staff from the National Livestock Program

Recipient: JLP Farms, Maria Clara, Diffun, Quirino
Received 7,000 pcs of assorted grasses last February 2019;
Raising a 539 heads cattle fattener and 59 heads breeder cattle

For CY 2019, qualified applicants have availed from the various loan packages such as bull loan, ram loan, buck loan, goat module (1 male and 2 females) and multiplier loan packages (1:5 or 1:10).

LOAN PACKAGE	NO. OF STOCKS RELEASED	NO. OF RECIPIENTS
BULL LOAN	17	17
BUCK LOAN	25	25
RAM LOAN	6	6
GOAT MODULE	15	3
SHEEP MODULE	57	19
GOAT MULTIPLIER	22	2
SHEEP MULTIPLIER	35	5

A letter of request with endorsement of the LGU concerned is one of the requirements to avail from the different loan package depending the applicant's choice. An evaluation team which is composed of technical staff from the DA RFO 02 Livestock Program, livestock station and Local Government Unit (LGU) concerned will evaluate and validate the status and readiness of the farm and capability of the applicants.

THE SUSTAINABLE LIVESTOCK LIVELIHOOD PROJECT

This is a program designed for backyard or small scale livestock and poultry farming. This 2019, the focus was on the provision of stocks mainly cattle, goat, and sheep. It has distributed a total of 100 heads of cattle to ten (10) LGU recipients and 105 heads of sheep with 16 LGU recipients. The remaining target of 55 heads goat are not delivered due to the difficulty in sourcing of stocks.



THE ANIMAL HEALTH DISEASE MANAGEMENT PROJECT

Animal Disease Prevention and Control is a regular provision of the National Livestock Program in Region 02 with the strong support of the Regional Animal Disease Diagnostic Laboratory (RADDL) and in collaboration with the LGUs. Relative to this the priority disease concerns are foot and mouth disease (FMD) , avian influenza (AI), anthrax, hemorrhagic septicemia, fasciola, african swine fever (ASF) and rabies.

An ASF, FMD and AI-free status has been consistently maintained by the existing Regional Task Forces through intensified disease monitoring and surveillance activities which include blood and cloacal swab sample collection. Laboratory testing were done using state of the art laboratory equipment at the Cagayan Valley Integrated Agricultural Laboratory in aide of reported cases and suspected areas for potential entry and spread of the priority diseases. These activities are coupled with massive information campaign among collaborating LGUs and Livestock Raisers Association.

Supplemental to the aforementioned activities is the distribution and administration of drugs and biologics with the LGUs serving as conduits, with a total of 151,249 doses of drugs and biologics.

FORAGE AND PASTURE DEVELOPMENT PROJECT

With good nutrition as a vital aspect in successful production, forage and pasture seeds and plant material distribution is an integral part of the production support services. This program is designed for ruminants specifically large (cattle and carabao) and small (goat and sheep). Through this program, seeds and planting materials are provided to large and small ruminant raisers free of charge. A total of 221,094 pc. of planting materials for recommended forages which are deemed source of nutritious roughage have been distributed for the benefit of 319 recipient, who have with plans to establish improved pasture as source of forage for their stocks. Interested raisers are however responsible for gathering the planting materials in the field in the various nucleus farms.

Sustaining Compliance to the Philippine National Standard on Organic Farming

Five (5) of DA Research Centers and Experiment Stations sustained their compliance to the standard on organic farming as evidenced by the issuance of the renewal of their Third Party Certification by the OCCP –ICSI. In addition, two (2) Experiment Stations, namely, DA-Batanes Experiment Station (DA-BES) in Kaychanarianan, Basco, Batanes and DA-Northern Cagayan Experiment Station (DA-NCES) in Abulug, Cagayan were added in the list of Third Party Certified DA Stations.

DA RFO 02 Stations
OCCP-ICSI Certified

SOUTHERN CAGAYAN RESEARCH CENTER (SCRC)
Minanga Norte, Iguig, Cagayan

Product	Area	Units	Quantity	Status
Fresh Vegetables (Fruit, Legumes and Leafy)	0.3 Ha	1 Farm	166 kilograms	Organic
Seed Vegetable (Fruit, Legumes and Leafy)			138.8 kilograms	Organic

Cagayan Valley Research Center (CVRC)
San Felipe, City of Ilagan, Isabela

Product	Area (ha)	Quantity (kg)		Status
		Fresh	Seeds	
Fruit Vegetables Crops	.69	3,180	17.41	Organic
Leafy Vegetable Crops	.04	320	0	Organic
Legume Crops	.82	950	384.66	Organic
Herbs and Spices	.04	126.5	0	Organic
Perennial Crops	.95	2,950	255	Organic
Root Crops	.1	560	0	Organic
Grain Crops		0	1,800	Organic
Other Crops	.008	55	0	Organic

Nueva Vizcaya Experiment Station (NVES)

Tapaya, Bagabag, Nueva Vizcaya

Product	Area (ha)	Units	Quantity (kg)	Status
Grain Crops Seeds	3.483	1 Farm	3,500	Organic
Legume Crops Seeds	.4		155	Organic
Vegetable Seeds			37	Organic
Perennial Crops-Fresh Fruits	.83		1,405	Organic
Rootcrops-Seed pieces Rootcrops	1.2		300pcs	Organic
Own Feed Source	6.2			Organic

Product	Area (ha)	Units	Quantity (heads)	Status
Native Chicken	1	1 Farm	400	Organic
Native Swine	3.2		140	Organic
Pekin Duck	.5		110	Organic

Quirino Experiment Station (QES)
Dungo, Aglipay, Quirino

Product	Area (ha)	Units	Quantity (kg)	Status
Grain Crops Seeds	1	1 Farm	2,000	Organic
Fruit Vegetable Seeds	.5		41.77	Organic
Legume Seeds			15	Organic

Product	Area (ha)	Units	Quantity	Status
Goat (Live)	2	1 Farm with Pasture/Forage and Animal Housing	23 heads	Organic

Northern Cagayan Experiment Station (NCES)
Maquire Lucban, Abulug, Cagayan

Product	Area (ha)	Units	Quantity (kg)	Status
Rice	3.5	1 Farm	10,598.4 (Seeds) 3,100 (Milled)	Organic
Perennial Crop	.75		10,950	Organic
Fruit Vegetables	.17		832 (Fresh)	Organic
Legume Vegetables			34.3 (Seeds)	Organic
Root Crops				
Leafy Vegetables				

CERTIFICATE

Certificate No. 045519-1

Department of Agriculture - Northern Cagayan Experiment Station

Producer Code: 19100190

Marilou B. Agaid, Ph.D./Station Manager

Lucban Abulug, Cagayan

The following is in compliance with standards: OCCP and PNS/BAFS 07:2018 and PNS/BAFS 42:2018

Product	Area	Units	Quantity	Status
Rice	3.50 hectares	1.00 FARM	10598.40 KILOGRAMS seeds 5190.00 KILOGRAMS Milled	Organic
Perennial Crop	0.75 hectares		10950.00 KILOGRAMS	Organic
Seeds and Fruits	0.17 hectares		832.00 KILOGRAMS fruit 34.30 KILOGRAMS seeds	Organic
Fruit Vegetables				
Legume Vegetables				
Root Crops				
Leafy Vegetables				

Annex(es): APPROVED PRODUCTS LIST

This certificate covers the following Activities: Crop Production (with Rice Milling) and Agricultural Input Dealing

The certified operator also produces/processes non-certified products: YES Refer to AP1

JULIE ANN G. SEPIELAGO
Quality Manager/Certification Manager

Date Certification Granted: 07 October 2019
Expiration Date: 07 October 2020

Applicable seal(s):

19100190

OAA-OCC-N2018-001

AB

DOCUMENT RELEASED TO

Batanes Experiment Station (BES)
Basco, Batanes

Product	Area (ha)	Units	Quantity (kg)		Status
			Fresh	Seeds	
Oyster Mushroom	1.83	1 Farm	750	100pcs	Organic
Fruit-Vegetable Crops			1,400	30	Organic
Leafy-Vegetable Crops			500	0	Organic
Legume Crops			500	45	Organic
Herbs and Spices			424	1,020	Organic
Perennial Crops			3,825	0	Organic
Root Crops			102,000	1,700	Organic
Grain Crops			1,535	1,635	Organic
Seedlings				62,000 pcs	Organic

DA Third Party Certified Farms

Name of Farmer Groups/Associations	Area (Ha)	Scope
Nueva Vizcaya Experiment Station (NVES) Tapaya, Villaros, Bagabag, Nueva Vizcaya	13.79	Crop Production Animal Production
Quirino Experiment Station Dungo, Aglipay Quirino	3.5	Animal Production
Southern Cagayan Research Center (SCRC) Minanga Norte, Iguig, Cagayan	0.3	Crop Production
Cagayan Valley Research Center (CVRC) San Felipe, City of Ilagan, Isabela	3.72	Crop Production
Northern Cagayan Experiment Station (NCES) Lucban, Abulug, Cagayan	4.42	Crop Production
Batanes Experiment Station (BES) Basco , Batanes	1.83	Crop Production and special product

Four (4) privately-owned farms also proved their sustainable compliance to the standard on organic agriculture. Hence, their renewal was issued by the OCCP – ICSI for the year 2019. There were also five (5) new private farms that were issued with Third Party Certification by the OCCP – ICSI.

PRIVATE FARMS
OCCP-ICSI Certified

Life Giving Center for Integral Evangelization Incorporated (LGCIE)
Bayombong, Nueva Vizcaya

Product	Area (ha)	Units	Quantity (kg)	Status
Leafy Vegetable Crops	6.086 sq.m.	10 Farms	34,600	Organic
Fruit Vegetable Crops			55,600	Organic
Root Crops			45,750	Organic
Legume Crops			18,400	Organic
Herbs			815	Organic
Perrenial Crops			3,420	Organic

Gonzaga Center of Agronomy, Villa Gonzaga, Santiago City

Product	Area (ha)	Units	Quantity (kg)	Status
Leafy Vegetable Crops	2.29	1 Farm	11,580	Organic
Fruit Vegetable Crops			1,020	Organic
Legume Crops			1,160	Organic
Herbs and Spices			2,018	Organic
Grain Crops			535	Organic
Fruit Crops (Perennial)			11,800	Organic
Root Crops and Other crops			3,610	Organic

Product	Area	Units	Quantity (kg)	Status
Live Hogs	592 sqm	1 Farm	100	Organic
Live Chicken	752 sqm		1,000	Organic
Live Ducks	62.5 sqm		200	Organic
Chicken Eggs	n/a		800	Organic
Duck Eggs	n/a		500	Organic

Willy's Integrated Farm, Holy Friday, Mallig, Isabela

Product	Area (ha)	Units	Quantity (kg)	Status
Grain and Legume Crops	3.06	1 Farm	19,200	Organic
Fruit Vegetables	2.55		35,300	Organic
Leafy Vegetables	.5		42,550	Organic
Fruit and Perrenial Crops	3.2		46,645	Organic
Root Crops	1		20,000	Organic
Herbs	.2		1,600	Organic

ABRASA Multi-Purpose Cooperative
Diffun, Quirino

Product	Area (ha)	Units	Quantity	Status
ECO-V Plant Supplement	n/a	1 Facility	37.5 Tons	Organic
Bio-Synergy Plant Suplement	n/a	1 Facility	750 tons	Organic

IT Pascua Agri-Products
Culung, Tuao, Cagayan

Product	Area (ha)	Units	Quantity (kg)	Status
Perennial Crops (Fruits and Plantation)	57.24	17 Farmers	25,379 kg	Organic
Grain Crops (paddy rice)	3.02	3 Farms	40,547	Organic
Equivalent Milled Rice			16,219	Organic
Spices	.20		1,140	Organic
Fruit and Vegetable Crops	.70		10,835	Organic
Rice Coffee Alternate		2 Facilities	2,766	Organic

Mataga-ay Coffee Growers Producers Cooperative
Purok 5, Jose Ancheta, Maddela, Quirino

Product	Area (ha)	Units	Quantity (kg)	Status
Perennial Crops (Fruits and Plantation)	57.24	17 Farmers	25,379 kg	Organic

Agri-Kaya Cooperative Federation
Brgy. Almaguer North, Bambang, Nueva Vizcaya

Product	Area (ha)	Units	Quantity (kg)	Status
Grain Crops	3.6	11 Farmers 1 Facility	10,598.4	Organic
Fresh Fruits	.75		21.200	Organic
Fruit Vegetables	3.6		69,450	Organic
Root Crops	.51		3,850	Organic
Legume Crops	1.2		21,500	Organic
Leafy Vegetables	1.3		23,600	Organic

R4D: Modernizing Agriculture thru Utilization of R&D Results

The implementation of Research for Development (R4D) projects are done to continuously generate, verify, adapt and commercialize technologies aiming to modernize agriculture in Region 02. Likewise, these technologies are addressing viable and sustainable farming towards a competitive agriculture sector.

This 2019, Research and Development Projects were successfully implemented maximizing available funds from various sources with the leadership of the Research Division and the support and participation of all its Research Centers/Experiment Stations from the five (5) provinces in the region. Funds for CY 2019 have been allotted for the different research and development services implementing 133 projects. The funding requirements came from various sources such as Rice Program, Corn Program, Agricultural Research Fund and substantive funding assistance from outside sources, namely, (1) DA-BAR under its various flagship programs; Community-Based Participatory Action Research (CPAR), Technology Commercialization (Tech-Com), Institutional Development Grant (IDG), and support to Applied Researches; (2) PCAARRD; (3) BPI ; and (4) UPLB FI.

The R&D projects implemented were attuned to the updated Regional Integrated Research and Development/Extension Agenda Program (RIRDEAP), to wit:

- yield enhancing
- productivity enhancement of use of the technology
- cost reduction
- with economic impact and resilient
- adaptive to climate change
- food safety

Further, R&D projects addressed the twin goal of Masaganang Ani at Mataas na Kita, the "New Thinking" for agriculture and fisheries through the leadership of Secretary William D. Dar.

In response to the paradigm on Modernization, specific R&D PAPs on mechanization, irrigation, crop diversification, crop-livestock integration and ICT-related R&D were carried out. Interventions made were verification, adaptation and commercialization of matured technologies which increased yield and income of farmers. There were 35 projects/ activities implemented on R&D Mechanization – (10), irrigation – (7), crop diversification – (9), crop-livestock integration – (7), and ICT related R&D – (2).

R&D interventions implemented supportive of the strategic thrust, specifying that Industrialization of agriculture is the key, was a product processing/waste utilization/ mushroom, CPAR, technology commercialization and marketing/socio-economics/policy-related. These interventions were focused on enhancing skills in product development and entrepreneurial activities and providing additional sources of food and income through crop diversification and crop-livestock integration and product processing. Change in mindset from production alone to agribusiness farming set-up and increased income were the notable expected impact or outcome.

There were 44 R&D projects/ activities implemented on product processing/waste utilization/ mushroom – (14), CPAR – (12), technology commercialization – (6), and marketing/socio-economics/policy-related – (12).

Along with the promotion of export, there were four (4) R&D PAPs implemeted on food safety, conduct of technology and investment forum, assistance in the investment promotion for agricultural commodities and establishment of compendium/database on regional product development, manufacturers, distributors, processors and exporters. For food safety, interventions were the rapid test kits (RTKs), Good Agricultural Practices (GAP) and capacity building. Quantifiable impacts or outcomes were the tagging sticker to all pesticide-safe compliant and aflatoxin-free compliant, execution of local ordinance, and increased awareness on food safety.

Interventions on the conduct of technology and investment forum and assistance in the investment promotion for agricultural commodities were technology transfer to manufacturers, distributors, processors, franchisers, general consumers and exporters and capacity development. Increased awareness on the appropriate technologies on farm production to agribusiness, enhanced yield and products developed which they can franchise or adopt to increase yield and commercialization of R&D products developed were the quantifiable impact or outcome. To date, Pinoy Gourmix of DA-Cagayan Valley Research Center was already taken-up by Providers MPCI and AMA-SILA of the City of Ilagan, Isabela for commercialization.

Another R&D PAPs' support to export promotion is the establishment of compendium/database on regional product development, manufacturers, distributors, processors and exporters. This is to provide various services to several stakeholders. It is implemented together with the Regional Agriculture & Fisheries Information Section (RAFIS). These include the development, packaging, and promotion of technology updates which consist of print/IEC materials production, conduct of techno-forum in the region and compilation and popularization of matured technologies. For CY 2019, the Research Division printed and distributed four (4) issues of Research and Development Digest: Makabagong Pagsasaka and a Compendium of Matured Technologies: Press Ahead: Reaping the Bounties of Good Farming which contained matured technologies generated from the different research projects implemented by the different research centers and experiment stations and different member-agencies of the Cagayan Valley Regional Research Development and Extension Network. These publications/print materials were distributed to our partner-agencies and received by our farmers.

In line with the efforts relative to the strategic thrust on higher budget and investment for Philippine agriculture, the review of the Regional Integrated Research & Development/Extension Agenda Program (RIRDEAP) was conducted and aligning its researchable areas towards increasing productivity, competitiveness and income were the identified specific R&D PAPs. Stakeholders consultative meetings/workshops, review, and re-orientation on the existing DA R&D programs and projects towards increasing productivity, competitiveness and income were conducted. As accomplished, R&D proposals were endorsed, undergone EnBanc Review and funded for implementation focusing on increasing yield and income of farmers.

To further enhance researchers' knowledge, there were seven (7) in-house and 10 external capability buildings participated by 255 R&D Staff (permanent and contractual) and 85 R&D Staff (permanent), respectively. Researchers also participate in benchmarking activities and presented R&D papers on International R&D Symposium. Aside from these capability buildings for researchers, enhancement and upgrading of R&D Facilities were also done.

Equipped with sufficient knowledge, researchers were able to package and submit 52 R&D project proposals. Fifty proposals endorsed to external funding agencies and 18 of which undergone the EnBanc Review while nine (9) were funded for implementation.

For CY 2019, from the approved and endorsed proposals, funds were generated amounting to ₱20,100,000.00 broken down as CPAR (₱10,100,000.00), Applied (₱5,200,000.00) and IKM/ Networking (₱4,800,000.00). It is important to note that majority of the generated funds equivalent to ₱13,065,000.00 (65%) were proposals from trained Job Orders/Contractual in the region.

Along with the paradigm specifying that roadmap development is paramount, crafting of R&D Strategic Framework for priority commodities such as sweet abulug pummelo, coconut and sugarcane was done through series of stakeholders consultative meetings and workshops. Developed frameworks of these crafted commodities were disseminated to all concerned agencies as reference for generating research for development. With these roadmaps developed, more R&D project proposals were crafted, evaluated, and endorsed to external funding agencies.

During the Annual Agency In-house Review conducted at DA-CVRC, San Felipe, City of Ilagan, Isabela on July 25-26, 2019, 51 research projects were evaluated broken down as follows:

CATEGORIES	ON-GOING	COMPLETED	TOTAL
RESEARCH CATEGORY			
1. Applied Research	**11**	**8**	**19**
2. Mechanization/ Agri'l. Engineering	**3**	**5**	**8**
3. Socio-Economics	**-**	**7**	**7**
DEVELOPMENT CATEGORY			
1. CPAR	**5**	**2**	**7**
2. Technology Demonstration	**10**	**-**	**10**
TOTAL	**29**	**22**	**51**

While Research and Development projects were conducted, various technologies were developed with significant results and breakthroughs that were disseminated/shared to farmers and various stakeholders through field demonstrations and conduct of techno fora with the purpose of increasing productivity and profitability of the farmers in the region.

RICE

Drying. AWD Technology was proven effective and efficient in water management for SWIP (small water impounding project) based areas-optimizing water use without decreasing yield and saving farmers from 16-35% irrigation water

Trichoderma Harzianum. BCA applied at basal @ 10 bags/ha as control for fungal diseases such as rice blast, sheath blight in upland rice.

Hybrid rice varieties in saline areas

Crop diversification

Rice-Mungbean – increased income from Php 21,623.00 to Php 58,092.00 or 168.6%
Rice-Watermelon – increased income from Php 8,430.00 to Php 44,046.00 or 422%

Ecosystem/PVS Trials	Top Yielding	Farmers' Preferred Varieties	
		Phenotypic	Sensory
Irrigated Lowland Hybrid	NSIC Rc250H	NSIC Rc432H	NSIC Rc380H
	NSIC Rc432H	NSIC Rc408H	NSIC Rc368H
	NSIC Rc380H	NSIC Rc380H	NSIC Rc432H
Irrigated Lowland Inbred	NSIC Rc436	NSIC Rc238	NSIC Rc222
	NSIC Rc440	NSIC Rc216	NSIC Rc438
	NSIC Rc222	NSIC Rc438	NSIC Rc238
Irrigated Lowland Special Purpose	NSIC Rc15	NSIC Rc15	NSIC Rc19
	NSIC Rc19	NSIC Rc344SR	NSIC Rc460
	NSIC Rc344SR	NSIC Rc218	NSIC Rc218
Rainfed/Drought Prone	NSIC Rc27	NSIC Rc27	-
	NSIC Rc434	NSIC Rc192	-
	NSIC Rc480	NSIC Rc416	-
Saline Prone	NSIC Rc468	NSIC Rc468	NSIC Rc464
	NSIC Rc466	NSIC Rc182	NSIC Rc468
	NSIC Rc470	NSIC Rc222	NSIC Rc470

Hybrid rice varieties in saline areas

Improved PVC metering device of sowing machine.
Features:
1. Digital speed control for the roller conveyor of 944 rpm and seed sowing machine 727.9 rpm
2. PVC metering device gives better seeding rate, lesser percentage of broken seeds, higher number of seeded trays and higher sowing efficiency than the metal metering device

Carrageenan - increase rice yield from 15-40%
Dosage: 3L/ha; 300ml per knapsack sprayer
Mode of application: Spraying
Yield: 9.10t/ha WS, 11.28 t/ha –DS

a. Transplanted
- 1st application: 12-15 DAT @ 1 L/ha
- 2nd application:25-30 DAT @ 1 L/ha
- 3rd application: 40-45 DA @ 1 L/ha

b. Direct Seeding
- 1st application: 20 DAS @ 1 L/ha
- 2nd application: 40 DAS @ 1 L/ha
- 3rd application: 60 DAS @ 1 L/h

Leveling implement. Involves four (4) wheel drive tractors, leveling implements and other different apparatus
Features:
1. Average levelness variation: 50.72%
2. Field capacity: 1.7 ha/day (depending on the size of the paddy, soil gradient, and skill of the operator)
3. Fabrication cost: Php 15,000.00
4. Breakeven: 66.06 ha and can be recovered within 0.9 yearMode of operation: pull-type metering device

Multi-purpose weeder retrofitted to a brush cutter.
Features:
1. Wetland: 0.55 ha/day with 92% weeding efficiency, payback period of 0.64 year and a return on investment of 155.47%
2. Dryland: 0.86ha/day with 89% weeding efficiency, payback period of 0.68 year and a return on investment of 153.08%
3. Investment cost: Php 7,300.00

Mechanized Bagging Machine. Mechanized bagging substrate for mushroom production – 170 bags/hr with 96% bagging efficiency.

Automatic irrigation for Mushroom. 1.5 gallons/hr with effective spray area of 2sqm

CORN

Gypsum as sidedres . Gypsum at 300 kg/ ha applied as sidedress is recommended as soil ameliorant in corn production

Corn silk harvesting. The best time to harvest silk of Corn for Maize Silky Sip is 10-14 DAE

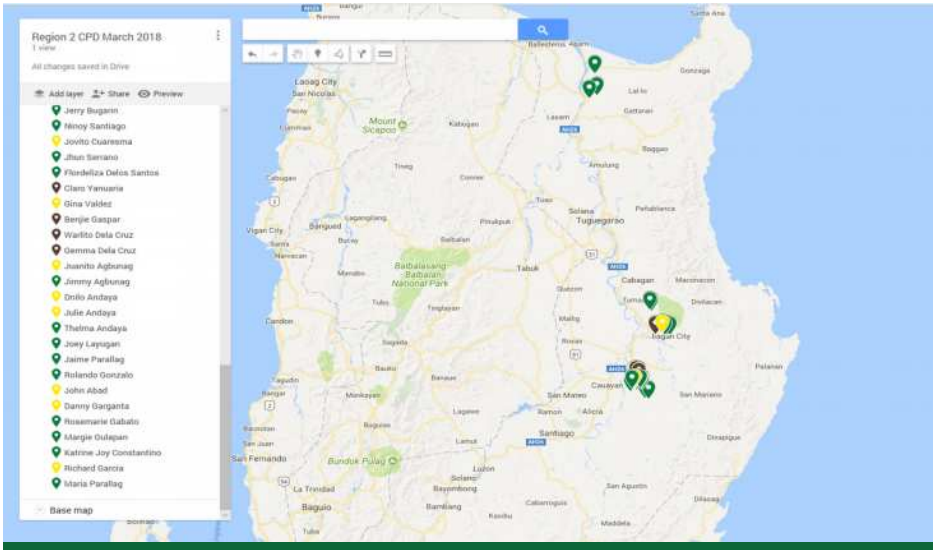
Salt Technology. Banana-based production (Banana and Rambutan as hedgerows)

Carrageenan on corn. increase corn yield from 15-40%
Dosage: 3-4L/ha
Yield: 4.15t/ha-4.22t/ha WS
4.49t/ha-4.51t/ha DS

1st application: 12 DAP @ 1 L/ha
2nd application:24 DAP @ 1 L/ha
3rd application: 42 DAP @ 1 L/ha

Corn silage – 18-21 days fermented corn fed to carabao.

NPK Fertilization. Fertilization: Application of 140-60-60 and 16-20-0 to corn production areas in the province of Isabela that are low in Nitrogen (N) and high in Potassium (K)



Cassava Athorpods. Information of severity of occurrence of arthropods in cassava (28% incidence of red spider mites; cassava phytoplasma disease), map & database developed

HIGH VALUE CROPS

CARAGEENANON on Peanut and Mungbean. Application of Carrageenan at 160 ml/ 16 liters knapsack sprayer at 10 sprayer load per hectare, sprayed to peanut and mungbean 2 weeks after planting and every 2 weeks interval for 3x. With profused flowering, large size of pods.

Pesticide safe vegetables
Use of Rapid Test Kit and Biological Control Agents compliance to GAP

Pot for Off-Season Onion Production.
- Variety: Super Pinoy
- Cropping period: August – December
- Protective covering: Rain shelter

Lowland Strawberry Production.
Variety: Hawaiian x Sweet Charie
Soil Mixture: 1:1 ration of garden soil and commercial ready mix media
Planting: distance of 30 cm by 25 cm is recommended. January to March best time to plant. Use of plastic mulch were laid before transplanting then 2-3 cm of rices traw, rice hull and cogon grass were laid after planting
Fertilizer Application:
-NPK @ 10-10-15 or 7.64g per hill

Mechanization on Peanut
Use of Pod stripper, peanut sheller, and sorter to aid in the post-harvest activities

Mungbean varieties suited in Region 2
MG 50-10 A or Wonder Mungo (1-1.3 mt/ha)
BPI Mg9 or Taiwan Green (1-1.4 mt/ha)
UPL Mg7 or Pag-asas 7 (0.60 t/ha (DS) & 1.7 mt/ha (WS)
NSIC Mg12 or Pag-asa 19 (1.21 t/ha (WS) & 1.27 t/ha (DS)
NSIC Mg13 or Pag-asa 21 (1.16-1.23 t/ha)

NSIC Pn 11 or Namnama-1 (2.2-2.6 t/ha)

NSIC Pn 14 or Namnama-2 (2.63 t/ha. (WS) and 2.37 t/ha (DS))

NSIC Pn 19 or Namnama-4 (2.66 t/ha (WS) and 2.58 t/ha (DS)

NSIC Pn 15 or Asha (2.85 t/ha (clay loam soil) and 3.1 t/ha

NSIC Pn 17 or GD Lasama Pride (2.948 t/ha (WS) and 1.66 t/

Improved peanut varieties
Use of Rapid Test Kit and Biological Control Agents for compliance to GAP

Fertilization
Application of Boron (Solubor Borax) resulted to yield increase of 627-693 kg/ha. For small-seeded and 1,641- 1,907 kg/ha. For large seeded varieties (60-70% yield increase)
Application of 150-200 kg/ha. of Gypsum (Calcium sulfate) in side placement at peak flowering regardless of soil test

LIVESTOCK

POT for Organic Pekin Duck Production
Recommended feeding rate of fermented azolla: 45-50g per head @ 2x a day

Probiotic Supplementation
Enhancing Pre-weaning Lambs by Probiotic Supplementation at 10 ml dosage per Lamb administer from day 1 to day 120.
Improve the digestive system in the utilization of nutrient for proper growth and maintenance

PRODUCTS DEVELOPMENT

Mechanization on Peanut
Brown/Processed Brown Rice Food Products : Nana Oryza

Rice Coffee

Mushroom Miki

Silky Sip

Cassava Foods Products: Cahoy

Mangi Maxi

Mungbean Products: MangBean

Peanut Food Products: NEERUMA

The following recognitions for accomplishments are received by DA-RFO 02 Research Team:

1. CSC Pagasa Regional Awardee and National Semi-Finalist on the categories for Young Researchers and Product Developers of DA RFO 02.
2. AFMA Qualifiers for the eight (8) R&D Papers wherein three (3) received Gold and Silver Awards in the Development Category and Silver Award in the Applied TV Category for the R&D papers entitled CPAR on Sustainable Corn Production in Sloping Areas (SCoPSA) in Barangays Divisoria Sur and Divisoria Norte, Maddela, Quirino, Technology Commercialization of Developed Food Products from CVRC Open Pollinated Variety (OPV) White and Pigmented Corn and Verification Trial on Lowland Strawberry Production in Rice-based Areas in Cagayan, respectively, during the 31st National Research Symposium conducted by DA-BAR.
3. Best Regional Cluster, Best RDE Management Paper Award for the project on RDE Management Strategies Towards Enabling Resources in Region 02 and 3rd Place Best RDE Management Paper Award for the project entitled DA CVRC Agribusiness Project: Harnessing Sustainable External Funding Through Showcasing Advanced Agricultural Technologies & Products in Region 02 during the 4th International RDE Management Congress and 29th National PHILARM Convention.
4. 2nd Place Best Paper Development Category for the paper entitled "Technology Demonstration of Mechanized Rice Farming in the Lowland Irrigated Areas of Region 02" during the 31st National Symposium on Agriculture & Aquatic Resources R&D of DOST-PCAARRD.
5. 1st Place Best Paper for CPAR on Sustainable Corn Production in Sloping Areas (SCoPSA) in Barangays Divisoria Sur and Divisoria Norte, Maddela, Quirino, 1st Place Best Poster for CPAR on Sustainable Corn Production in Sloping Areas (SCoPSA) in Barangays Divisoria Sur and Divisoria Norte, Maddela, Quirino, and 3rd Place Best Poster for the paper on Enhancing the Utilization of Glutinous Rice through the Development of Rice-based Food Products in Cagayan during the 30th CVAARRD Regional Symposium on Research, Development & Extension Highlights (RSRDEH) held at Isabela State University – Echague, Isabela on December 12, 2019.

Research and Development will continue to implement R&D projects/activities addressing the twin goal of Masaganang Ani at Mataas na Kita and to the Research for Development Paradigm focusing on the criteria: Is it needed by the farmers/fisherfolk; Is it scalable?; and can it be utilized by the agricultural business sector?. Secondly, the R&D will further strengthen R&D on product development towards agripreneurship and food tourism, and strengthen partnership/linkages with the Provincial Agricultural Extension System (SUCs, LGUs). Lastly, research centers/experiment stations to focus on the development of their major/flagship commodities from production to agribusiness and conduct of capability building.

DA RFO 02 Response to Food Safety: RTK , GAP and GAHP

Committed to support the Food Safety Act of 2013, the Department of Agriculture Regional Field Office No. 02 (DA RFO 02) introduces and persistently promotes pesticide residues detector -Rapid Test Kit (RTK) and Good Agricultural Practices on vegetable production among vegetable-growing sites in Region 02.

Pesticide-safe sticker used by compliant farmers

The government had long been identified the issue of food safety deterioration as subsequently resolved by our congress by enacting the Republic Act 10611, "An Act To Strengthen The Food Safety Regulatory System in the country to protect Consumer Health and facilitate Market Access of Local Foods and Food Products, and for other purposes" otherwise known as the "Food Safety Act of 2013". This law mandates the Department of Agriculture to promote food safety and food security in the country, being the department that is directly responsible in food production and modernization of agricultural practices.

Taking steps to implement policy on providing safe foods, DA RFO 02 through research initiative of its Integrated Laboratory Division-Regional Crop Protection Center-Plant Health Clinic (ILD-RCPC-PHC), conducted assessments and evaluation of various upland and lowland vegetables from public markets, stores, and on-farm sites in the region to test pesticide residues.

The use of colorimetric rapid test kit (RTK) detects pesticide residues concentration through color reaction in tested vegetables. It detects organophosphate (OP) and carbamate residues which are highly toxic registered pesticides in the Philippines. Using the tool, it was found that vegetable samples from different sites in Cagayan Valley were positive from carbamate (92%) and organophosphate (9.2%) interpreted to be above the maximum residue limit (MRL). On the other hand, Good Agricultural Practices (GAP) on vegetable production implementation focuses on guiding vegetable growers to follow the

appropriate dosage and instructions in using pesticide. Moreover, Biological Control Agents (BCAs) such as trichogramma, trichoderma, earwig and metharhizium were distributed to vegetable growers. BCAs are highly recommended as natural enemies of harmful insects which are effective alternative for synthetic chemicals.

DA-RFO 02 and the City Local Government Unit (CLGU) of Santiago collaborated in training possible adopter of the technology on the application of RTK and GAP. The RTK analysis on two entry points of Santiago City public market confirmed positive to carbamate (53%) and organophosphate (4%). The alarming result pushed CLGU-Santiago to pass an ordinance requiring the adoption of RTK and GAP on vegetable. Santiago City was already awarded a Certificate of Compliance by the department as it promises the allocation of funds and full support for the persistence of the said program. The vegetables and fruits that are being sold to the city market are now pesticide-safe bearing the pesticide-safe stickers. With such remarkable success, the DA RFO 02 is moving to superimpose the project to other vegetables sites among provinces of the region. To date, the municipality of Roxas, Isabela is also now implementing while Tuguegarao City has already passed an ordinance to adopt the same.

Santiago City Vegetable Growers and Marketing Cooperative (SCVGMC) members (in blue-collar shirts) together with DA RFO 02 RTD for Research & Regulatory, Ms. Rose Mary G. Aquino showcasing pesticide-safe vegetables to DA- Secretary Dr. William D. DAR during the 15th Agricultural & Fisheries Technology Forum and Product Exhibition on August 2019 hosted by DA-BAR

The department has a long way to go but with proper coordination and implementation coupled with determination, consumers in the region will be assured of pesticide-safe fruits and vegetables served in the dining table. The Food Safety Program, when implemented properly, will create and enhance food standards that will facilitate food exports to other countries and will lead to international markets.

The Cagayan Valley Integrated Agricultural Laboratories (CVIAL) Paves its Way Towards Food Safety and Security

Pursuant to Rule 81.8.4 of the Implementing Rules and Regulations of the Agriculture and Fisheries Modernization Act (AFMA), the Department of Agriculture (DA) approves policies for the operationalization and continues strengthening of its institutional capacities. The integration of the Research and Development/Extension (R&D/E) system and the different laboratory services gear towards efficiency and effective systematic actions of DA RFO 02. It contributes to the national goal of a global competitiveness through production of quality and safe agricultural products for domestic and international market. According to Climate Change, Agriculture and Food Security (CCAFS), food security is experienced when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

With this mandate, DA RFO 02 established the first Integrated Laboratory nationwide known as the Cagayan Valley Integrated Agricultural Laboratory (CVIAL). This was made realized through the strong support of the Bureau of Agricultural Research (BAR) and the High Value Commercial Crops Development Program (HVCDP) of DA. CVIAL aims to provide a comprehensive and state of the art facility and one- stop shop laboratory. The CVIAL integrates the services of five agricultural laboratory services for easier and faster access of our farmers & other stakeholders in the agriculture sector.

The Regional Soils Laboratory (RSL) and its satellite laboratory, Ilagan Soils Laboratory (ISL), are mandated to provide technical information, analysis and ameliorant recommendations relative to soil condition and plant nutrient requirements to aid farmers in attaining optimum yield from their crops, reduce cost of inputs and maintain soil health. It also provides technical assistance through soil, water, plant tissue, and fertilizer analysis in support to research, development and extension. The provision of quality bio-fertilizer, calibration, and validation of research relative to soil fertility are also included in the major functions of the laboratory.

Forty four (44) soil fertility maps for rice, corn and high value crops were developed based on the result of soil analysis and for posting/dissemination in the Local Government Units (LGUs) regionwide through collaboration with Regional Agricultural Engineering Division (RAED). Soil Fertility Mapping helps farmers increase crop yield and reduce production cost based on fertilizer recommendation as a guide to individual farmers.

The Regional Crop Protection Center-Plant Health Clinic (RCPC-PHC) and its satellite laboratory RCPC-Ilagan are also R&D facilities mandated to provide products and services to address problems on plant pests, diseases, and pesticide residues to sustain sufficient, affordable, and safe food for every Filipino. Development of Chemical, Microbiology & Molecular Biology Laboratory in the analysis for Plant Pests, Disease Diagnosis and Pesticide Residue Analysis in the RCPC-PHC aid in the accurate and immediate laboratory diagnosis for proper management recommendations to farmers.

The Center also supported the RA No. 10611 otherwise known as the "Food Safety Act of 2013", an act to strengthen the Food Safety Regulatory System in the country. City Local Government Unit of Santiago, in collaboration with DA-RFO 02, successfully adopted the technology on the use of Rapid Test Kit for food safety concerns, monitoring of compliance (GAP, PHI & Dosage of Chemicals) and public awareness and provision of Biological-Control Agents for the management of pests and diseases in vegetable production. Santiago City Vegetable Growers and Marketing Cooperative was issued Certificate of Compliance as producer of "pesticide safe" vegetables by the Regulatory Division. Santiago City passed an Ordinance and Guidelines in the production and marketing of vegetable safe vegetables in Santiago City. Series of consultative meetings on the implementation of Food Safety Program in Region 02 participated by vegetable growers association/cooperative, LGUs/MLGUs, and stakeholders were conducted to promote production of "pesticide safe" vegetables in Region 02.

Mushroom Research and Development Center was established at RCPC, City of Ilagan, Isabela. The center is one of the highest producers of quality BCAs nationwide. Bio-control agents were distributed and released as management for insect pests and diseases of different crops.

The RCPC is deeply involved in the implementation of the Integrated Pest Management (IPM) programs on rice, corn, high value crops, and in applied researches geared towards the development of integrated control approaches of major pests of different crops in the region.

Included in its functions is the information exchange and extension in providing farmers and the public with varied facets of pest control and to emphasize the urgent need for safe and effective pest control practice. The laboratory has also to establish adequate linkage between research and operational phases at the farm level to ensure that the changing research needs of operational activities are based on the most recent and applicable research findings.

Map, insect pest and disease profile on major commodities and fall armyworm (FAW) flyers are developed for awareness, campaign and information on pests and diseases. The RCPC team successfully managed 303.9 ha. of corn areas infested with the new invasive pest FAW, through vigilant monitoring, IPM such as application of BCAs, organic-based pesticides, contact and stomach insecticides, pheromone traps and the conduct of 28 technical briefings and awareness campaign on the occurrence of pests & diseases in Region 02.

Distribution of 20 light traps for monitoring & management of Rice Black Bug (RBB) and other insect pests, 25 units flame thrower were distributed for the management of rodents in the different municipalities in Region 02.

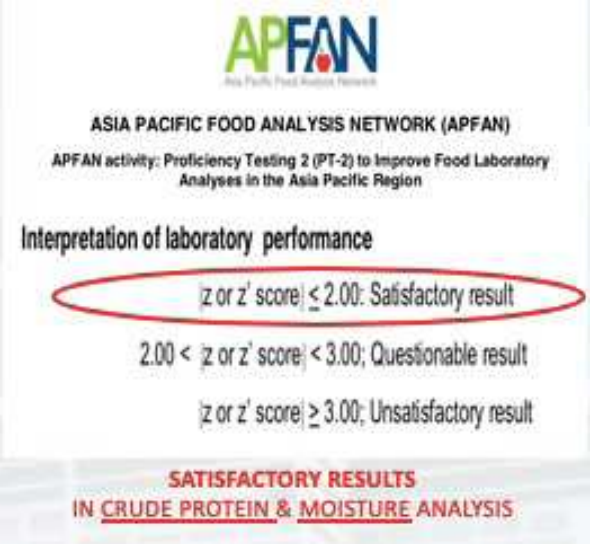
The center also initiated the implementation of Mushroom Project through production of pure culture, mother spawn, and fruiting bag. It also serves as a learning field for 26 producers and processors in the Province of Isabela. Twenty (20) Community-based Mushroom Production Enterprise components of the project were established to support business enterprise for fresh mushroom and processed products.

As a result of the continuous capacity building undertakings, the producers and processors were organized and became members of Asosasyon ng mga Isabelinong Magkakabute (AIM)" engaged in mushroom production and processing enterprise.

The **Regional Animal Disease Diagnostic Laboratory (RADDL)** is an R&D facility mandated to provide rapid and efficient diagnostic services in the reduction and control of livestock and poultry disease outbreaks, ensure product safety, and quality and consumer protection. This is also the research arm for the livestock program of DA RFO 02. RADDL is now equipped with the latest equipment for animal disease diagnosis manned with capable and trained analysts to effectively prevent and control important and emerging livestock diseases through active surveillance in collaboration with the Regulatory Division. The laboratory passed the Competency Assessment on Rabies Diagnosis using Direct Fluorescent Antibody Technique (DFAT) conducted by the Research Institute of Tropical Medicine (RITM) of Department of Health (DOH).

The **Regional Feed Chemical Analysis Laboratory (RFCAL)** is a facility mandated to provide analysis to ensure compliance to animal feed product standards for consumer safety and product acceptability both locally and globally. Ten (10) municipalities are awarded as Corn Aflatoxin Free/Compliant LGU during the Corn-Livestock Integration Summit at DA-CVRC on August 27, 2019 through the assistance of RFCAL.

The laboratory is now capable of ochratoxin, fumonisin, neutral detergent fiber (NDF) and acid detergent fiber (ADF) analysis for corn and feeds.



The RFCAL joined the proficiency test and passed with satisfactory result on the Asia Pacific Food Analysis Network (AFPAN) Proficiency Testing 2 (PT-2). This is a requirement in the ISO 17025 to improve services for Food Laboratory Analyses in the Asia Pacific Region.

The **Regional Food Technology and Incubation Center Services (RFTDIC)** is designed and established to provide modern sustainable processing technologies and to ensure product quality and food safety in Cagayan Valley.

In support to food safety, the RFTDIC is now capable of proximate analysis for nutritional facts and microbial testing for quality food products.

Laboratory equipment and facilities of Integrated Laboratory Division (ILD) are now sufficient and upgraded through the integration of resources from different Banner Program and External Fund. Equipped with the updated equipment and ground improvements, the CVIAL undergoes a very systematic operation and thereby rendering quality diagnostic services that meet the standards of quality assurance towards food security, safety, and International Organization for Standardization (ISO/IEC 17025) accreditation.

The DA RFO 02 ILD personnel serve as members of the Technical Working Group (TWG) for the development of Department of Agriculture- Regional Integrated Agricultural Laboratory (DA-CVIAL) master plan in the Philippines. DA RFO2 pioneers the establishment and implementation of the Integrated Laboratory Division in the entire country housing the four laboratories in a state-of-the-art building, the CVIAL.

CVIAL is now a popular venue for researchers, students, academicians, and stakeholders in conducting their projects and studies which enable them to excel more in their studies and careers.

Moreover, ILD is one of the instruments in encouraging the youth to engage in agriculture through exposure to the activities of each laboratories. A number of on-the-job-training students realized their inclination to agriculture through expository and hands-on activities, in fact, some of these OJT students declared that they are already contemplating to enroll in the field of veterinary medicine, agriculture, chemistry, biology, and other related courses to agriculture when they move up to college education.

With the utmost dedication and commendable efforts on research and development, CVIAL was recognized with an advent contribution on researches enhancing DA RFO 02 facilities and equipment towards the production of relevant technologies in support to the attainment of food safety and sufficiency.

AWARDS AND RECOGNITIONS RECEIVED

1. AFMA Qualifier R&D Paper Award (31st National Research Symposium): "Assessment, Evaluation and Promotion of Pesticide Safe Vegetables in Region 02" (RCPC-Plant Health Clinic)

2. 2nd Best Scientific Paper (4th National Organic Agriculture Conference): "Use of Organic Dewormer for the Control of Parasitic Gastroenteritis of Small Ruminants in Region 02" (RADDL)

3. 1st Place (DA RFO 02 2019 In-house Review-Research Category: Applied Research): "Survey & Early Warning on Cassava Arthropod Pests & Diseases in Region 02" (RCPC-Ilagan)

4. 2nd Place (DA RFO 02 2019 In-house Review Research Category: Applied Research): "Assessment, Evaluation and Promotion of Pesticide Safe Vegetables in Region 02" (RCPC-PHC)

5. 3rd Place (DA RFO 02 2019 In-house Review Research Category: Applied Research): "Integrated Pest Management of Corn Plant Hopper in Saranay Aurora, Isabela" (RCPC-Ilagan)

6. 4th Place (DA RFO 02 2019 In-house Review Research Category: Applied Research): "Management of Sheath Blight in Upland Rice in Jones, Isabela" (RCPC-Ilagan).

7. 3rd Most Resourceful in generating resources from external funding institutions such as DA-BAR and DOST-PCARRD (ILD-Regional Crop Protection Center)

Institution of Business Opportunities for Agri-Fishery Enterprises in Region 02

The Agribusiness and Marketing Assistance Division (AMAD) is fervent in providing excellent services to entrepreneurs in support to the New Thinking in Agriculture. Various interventions were undertaken to ensure agribusiness competitiveness and sustainability.

AMAD is greatly inspired to continuously provide support services to agri-fishery enterprises in improving marketing competitiveness and opening new business opportunities. In CY 2019, the initiatives of AMAD in line with the "Masaganang Ani at Mataas na Kita" Strategy changed the business outlook of 25 groups of innovative processors and entrepreneurs and members including various target markets. Their products increased their potentialsastheypenetratedtoahigherlevelof market. This market-driven approach developed these enterprises and their products to become more competitive and marketable. These enterprises are processing various food products to include fruit wine, banana chips, ginger candy, peanut products, rice (brown/black), organic fresh vegetables, pastries, cassava crackers, and pineapple (dried and fiber).

However, these products developed by these enterprises have limited market due to inappropriate product labelling and packaging. With the interventions provided particularly on product enhancement of packaging and labelling, intense promotional and marketing schemes, their market expanded not only in their respective areas but also outside the region resulting to increase in income. The Quibana loaf, cassava crackers and banana chips from Quirino are now gaining popularity that even reached to other countries as ***pasalubong***.

AGRIBUSINESS INITIATIVES FOR HIGHER LEVEL MARKET

Tradefairs such as Agribusiness Support for Promotions and Investment in Regional Enterprises (ASPIRE) and Regional Organic Agriculture Congress cum Tradefair wherein the agripreneurs generated more sales are strategies responding to the objectives of industrialization in developing market. With the initiative of AMAD in conducting and participating 11 local tradefairs, agri-processors in the region had generated a total income of **₱2,324,493.50** and linked a market value of ₱199,600.00 of agri-processed products. From these tradefairs, 196 exhibitors were assisted to market their products.

CAPABILITY BUILDING FOR THE AGRI-ENTERPRISES

To ensure a smooth business operation, the entrepreneurs were capacitated through trainings on Business and Financial Management, Good Manufacturing Practices (GMP), Kapatid Agri-Mentor Me Program and Digital Marketing benefiting 38 groups and 124 individuals.

Capability building developed entrepreneurs to become more competitive, resilient, and market-oriented thus providing them better market opportunities.

KADIWA NI ANI AT KITA IN CAGAYAN VALLEY

In support to farmers and fisherfolk, especially those with lesser access to commercial markets, while providing increased accessibility of affordable fresh farm products to the consumers, the establishment of TienDA Malasakit now renamed as KADIWA was undertaken by AMAD. The TienDA Malasakit Store/PanagDAdapun/KADIWA ni Ani at Kita provides direct market access to producers thus reducing market layer or middleman. Two stores were launched which are located in Santiago City with the Samahan ng mga OFW ng Santiago City Consumers Cooperative (SOSCC) and in Cauayan City with the Cauayan City Government Employees Multi-purpose Cooperative (CAGE).

As operators, the two cooperatives were provided with chest type freezer through Memorandum of Agreement (MOA) for the operationalization of Malasakit Store in their respective areas. Now, with the intervention provided, consumers from those areas can now access fresh and affordable farm produce. The DA RFO 02 Multi-Purpose Cooperative in Tuguegarao City, Cagayan was named as the first KADIWA Outlet in the Region which was launched on December 11, 2019, attended by Assistant Secretary for Agribusiness and Marketing, Kristine Y. Evangelista.

1st KADIWA Outlet in the Region which was launched on December 11, 2019, attended by Assistant Secretary for Agribusiness and Marketing, Ms. Kristine Y. Evangelista, DA-RFO 02 Multi-Purpose Cooperative in Tuguegarao City, Cagayan

INTENSE BUSINESS LINKAGE

In line with the Big Brother and Small Brother Approach, it is duly noted that AMAD was an instrument in the successful business linkage between four Corn Farmers Cooperative in Region 02 and 12 Feed Millers in Region 4A which resulted to an increase income of P4,047,327.00. Additional income amounting P14,095.00 was also realized by white corn farmers in Sta. Maria, Isabela which was linked with Cusipag Trading Center, Tuguegarao City, Cagayan.

Another milestone was the registration of the Cagayan Valley Citrus Industry Development Council (CVCIDC) to the Securities and Exchange Commission (SEC). The AMAD, together with the CVCIDC, conducted Business Linkage on August 12 – 16, 2019 in Metro Manila to link citrus producers to sustainable market and eventually resulted in increasing their income. As a result, the Aurora Citrus Farmers' Cooperative of Aurora, Isabela forged agreement through Purchase Order (PO) with the Mama Sitas Corporation in Pasig City provided the growers an additional income of ₱447,709.24. The next delivery will be on September 2020. Furthermore, AMAD conducted business linkage among local agri-processors to hotels and restaurants and travel agencies on March 29, 2019 at DA-SCRC – CBS, Solana, Cagayan participated by eight (8) agri-processors, five (5) hotel and restaurant operators and one (1) travel and tours agency that successfully closed deals totalling to a market value of ₱591,500.00. Other markets were opened for other commodities like rice, onion, mango, and assorted processed products. Truly, these business linkage activities uplifted the farmers in our region.

Yvonnie Nitura Gutierrez, ACFC operational manager based in Barangay (village) Bagnos in Aurora, said they have started delivering fresh calamansi to Mama Sita's since last month, ranging from six to 12 tons per week.

She said **their business with Mama Sita's pushed through with the assistance** of the Department of Agriculture-Regional Field Office 2 (Cagayan Valley) -Agribusiness and Marketing Assistance Division (DA-RFO2-AMAD).

"With this development, we are encouraging our cooperative members particularly those who only maintain small-scale plantations to expand and to **produce quality calamansi** and **increase their income**," Gutierrez said.

https://www.manilatimes.net/2019/10/10/business/agribusiness/citrus-farmers-team-up-with-manila-firms/629037/


BSP backs tax amnesty, lifting of bank secrecy law

The Manila Times

Trusted since 1898

Batuan vice mayor gunned down

Albayalde's guilt clear as daylight

Rice industry competitiveness is attainable

Citrus farmers team up with Manila firms

BY LEANDER C. DOMINGO, TMT OCTOBER 10, 2019

HOME / BUSINESS / AGRI BUSINESS / CITRUS FARMERS TEAM UP WITH MANILA FIRMS

TAGGED as the "Calamansi Capital of Cagayan Valley" (Region 2), the town of Aurora in Isabela province is boosting its production of quality calamansi as it is now supplying one of the biggest condiment manufacturers in the Philippines.

LRT2 FIRE BLAMED ON LIGHTNING

Manila Water warns of 'exponential' rate hike

BILIRID CLEANUP

Region 2 Calamansi featured in Manila Times

Agribusiness Support for Promotions and Investment in Regional Enterprises
Robinsons Mall, Tuguegarao City, Cagayan
July 5, 2019

THE INVESTMENT CONCEPT DEVELOPED FOR FUTURE INVESTORS

The AMAD had packaged five Investment concepts, namely beef cattle, garlic, cassava, tomato, and sweet potato which were presented during the Investment Promotion to possible investors. Also, printed copies of packaged investment concepts were provided to officers or members of cooperatives or associations, individual entrepreneurs and investors, councils, representatives from the Local Government Units, staff of DA Research Centers/Experiment Stations and other government agencies as guide or reference for possible business endeavors they will engage into. Also, AMAD conducted three regional events, namely, the Mushroom Investment Forum on July 5, 2019 at Robinsons Mall, Tuguegarao City, Cagayan, Regional Organic Agriculture Congress on June 19-20, 2019 at La Sallette of Santiago City, and Investment Promotion for Agricultural Commodities on September 19, 2019 at Highlander Hotel, Solano, Nueva Vizcaya which were attended by 230 participants, 500 participants and 252 participants, respectively.

Regional Investment Promotion

PRICE MONITORING AND PRICE TREND ANALYSIS AS DECISION-MAKING TOOL

One of the critical functions of AMAD is the conduct of price monitoring with SMS Blasting and Price Trend Analysis every month. Analyzed reports were submitted to Central Office that provide price awareness both for processors and consumers. As an approach to strengthen this activity, the Regional Bantay Presyo Monitoring Team (RBPMT) was created. Furthermore, the AMAD also provide price data of identified agricultural commodities to the Regional Tripartite Wages and Productivity Board 02. Price Updates on the Prices of Basic Agricultural Commodities for the provinces of Cagayan, Isabela and Nueva Vizcaya were presented during the Productivity and Wage Consultation on October 17, 2018 at Nueva Vizcaya Convention Center, Bayombong, Nueva Vizcaya, on October 18, 2019 at Diocitas Hotel, Santiago City and on November 25, 2019 in Tuguegarao City, Cagayan. This provides reference to aid the board and the stakeholders in coming up with a consensus relative to wages, incomes, and productivity.

AGRICULTURAL PRODUCTS EXPRESS LANE FOR TRUCKERS

The Foodlane Project was implemented in collaboration with the Metro Manila Development Authority (MMDA), Department of the Interior and Local Government (DILG) and the Philippine National Police (PNP) aimed to institutionalizing the efficient distribution of agri-fishery products from the production sites to the major demand centers of Metro Manila and other regions.

ACCREDITED FOODLANE	ADDRESS
Cavite-Isabelino Coop	**San Guillermo, Isabela**
Salcedo Blanza	**Echague, Isabela**
Virgilio Musngi	**Echague, Isabela**
Narciso Castañeda	**San Guillermo, Isabela**
Jiji P. Canuela	**Cordon, Isabela**
Florendo R. Pascua, Jr.	**Cordon Isabela**

Six (6) trucking services were accredited to transport agricultural products of Cagayan Valley to other regions. Foodlane Accreditation is beneficial as there were: 1) no truck ban, 2) no check points, 3) no unnecessary trucking fees, among others. This hassle-free scheme in hauling or transporting agricultural products helped the farmers reduce losses during transport.

THE CREDIT PROGRAMS AS A PARTNER IN AGRICULTURAL DEVELOPMENT IN THE REGION

The credit assistance provided by AMAD to agri-fishery enterprises and project recipients are composed of 14 cooperatives with 2,317 farmer-beneficiaries who availed 141,525,000.00 total amount of loan.

Furthermore, the creation and strengthening of the Regional and Provincial Loan Facilitation Team (R/PLoFT) was highlighted as one of the best practices to fast track processing of credit programs.

The above-stated activities were designed to capacitate the agri-fishery enterprises in the valley thus developing them to be more competitive and have their agribusiness enterprises become more sustainable.

Adaptation and Mitigation Initiative in Agriculture – Climate Resilient Agri-Fishery Technology-Based Enterprise (AMIA-CREATE)

The Department of Agriculture has launched the Adaptation and Mitigation Initiative in Agriculture (AMIA) in 2014, with an overall vision of a Philippines agri-fisheries sector that enables local communities to manage climate risks while pursuing sustainable livelihoods. As its overall approach, AMIA develops and promotes Climate Resilient Agriculture (CRA) through implementing technologies and practices, introducing institutional and social innovations, and accessing climate-relevant support services. The AMIA-CREATE project location in the region are Sta. Victoria, Ilagan, Isabela and Lucban, Benito Soliven, Isabela.

The aim of the project is to establish and sustain climate-resilient communities through provision of climate-resilient agriculture (CRA) options and technologies and sustainable livelihoods focusing on community empowerment. AMIA Villages will be made climate resilient and sustainable through the following:

1. Provision of climate-resilient agricultural inputs;
2. Provision of climate-resilient facilities, agricultural equipment and machineries;
3. Development and sustainable business opportunities and livelihood program;
4. Promotion of products; and
5. Capacitation of farmers through trainings and livelihood program

Site Validation conducted at AMIA Village Sta. Victoria, City of Ilagan, Isabela headed by RED Narciso A. Edillo on December 11, 2019.

Soil analysis is a basis for the procurement of organic and inorganic fertilizers for the establishment of technology-demonstration on rice production of the newly converted irrigated rice field to the service area of PASA Dam in Sta. Victoria, City of Ilagan, Isabela

Rice production areas also practice Alternate Wetting and Drying. Monitoring pipe were installed by the rice farmers to maximized irrigation requirements in their ricefield. During Dry Season 80.88% of 55 rice farmer-cooperators used rice hybrid seeds, 16.18% or 11 rice farmer cooperators used rice inbred seed and 2.94% or two (2) farmer-cooperators used both hybrid and inbred varieties. During Wet Season 79% of 54 farmer cooperators used rice hybrid seeds and 20.59% of 14 farmer-cooperators used rice inbred seeds. Figure below shows the total production of 72.285 hectares with 68 rice farmers.

PRODUCTION YIELD (kg)	
Wet Season (June to Sept. 2019)	Dry Season (Dec. 2018-April 2019)
443,190.00	469,425.00

Brgy. Lucban, Benito Soliven, Isabela

PROVISION OF CLIMATE-RESILIENT FACILITIES, AGRICULTURAL EQUIPMENT AND MACHINERIES

AMIA Lucban, Benito Soliven, Isabela has availed rice combined harvester, riding type direct seeder and four-wheel drive tractor through the Department of Agriculture Region 02- Rice Program and AMIA. These have a big impact to the farmers in the village but also to adjacent barangays which are seeking assistance/services to lessen manpower requirement especially when calamity occurs or during peak season of farm activities. Solar Power Irrigation System (SPIS) Project was also constructed in the tail end area to sustain irrigation requirement of their crop. Brown rice mill was also constructed in the village to process their produce, reduce cost on post-harvest, and processing.

Solar Power Irrigation System (SPIS) Project
Brgy. Lucban, Benito Soliven, Isabela

THE DEVELOPMENT OF SUSTAINABLE BUSINESS OPPORTUNITIES AND LIVELIHOOD PROGRAM

1. 85 swines and 400 chicks were distributed as livelihood projects. According to the villagers, most of the eggs collected were used for family consumption. However, some prefer to incubate the eggs using native chicken. Some of the distributed gilts were subjected to AI and are expected to furrow in the succeeding year.
2. SWIP-based tilapia production was practiced within the village as additional source of income of farmers.
3. Vegetable seedling production of tomato, eggplant, and pepper were sustained using the greenhouse provided by Department of Agriculture Regional Field Office No. 02. Some of the vegetable seedlings produced were sold to the farmers outside the village. This is a strategy done to sustain the vegetable production in the community.
4. Dragon fruit production was established in the embankment of the Lucban SWIP to make the area more productive.

PROMOTION OF PRODUCTS

Processing Premium Brown Rice and Black rice, a quality product of Lucban Small Water Irrigation System Association in Lucban, Benito Soliven, Isabela. This product was produced through the joint effort of Lucban SWISA, Department of Agriculture Cagayan Valley Research Center and Agribusiness Marketing Assistance Division. The Department of Agriculture continues to help sustain the enterprise through promotion of eating brown rice and health benefits derived.

Establishment of AMIA Climate Information and Learning Center equipped with the state-of-the-art climate information and data gathering facilities in partnership with DOST-PAGASA, to generate climate information, analyzed, and transformed as localized weather and farm advisories.

CAPACITATION OF FARMERS THROUGH TRAININGS AND TECHNOLOGY DEMONSTRATIONS

1. Training on vegetable seedlings production management and vermicomposting
2. Utilization of “climate adapted-seeds” CPAR
3. Integrated farming system and GAHP

I. INVESTMENT FOR AFMP PLANNING AT THE LOCAL AND NATIONAL LEVELS (I-PLAN) COMPONENT

In addition to the six (6) VCAs already approved, the RPCO2-IPLAN Component targeted three (3) VCAs for completion in 2019. These are seaweeds (gracilaria spp.), whitecorn and organic garlic. The preparation of Rice VCA was also conducted by RPCO2 IPLAN. The completed VCA report and its endorsement for review was forwarded to PSO/NPCO on May 14, 2019. The compliance of Seaweeds and Whitecorn VCAs were completed and endorsed to PSO on June 6, 2019 and August 27, 2019, respectively. The said VCAs were given NOL on August 4, 2019 (Seaweeds) and October 4, 2019 (white corn). Moreover, compliance is ongoing for Organic Garlic VCA.

VCA Status

COMMODITY	STATUS
Seaweed (Gracilaria spp.)	**Approved on August 14, 2019**
Whitecorn	**Approved on October 4, 2019**
Rice (regular)	**Under NPCO Review**
Organic Garlic	**On-going compliance by RCPCO2-IPLAN Component**

An FGD and KII to the farmers of onion in Nueva Vizcaya was conducted for the updating and regionalization of the onion VCA.

I-Plan Component conducts Inception Meeting with Nueva Vizcaya State University, Bayombong, Nueva Vizcaya

PCIP Status

PROVINCE/CITY	STATUS	COMMODITIES INCLUDED
Batanes	Updated and approved by PDC & SP on March 16, 2018 and March 22, 2018 respectively.	**Garlic, Sweet Potato, Beef Cattle**
Cagayan	Updated and approved by PDC & SP on June 10, 2019 & September 30, 2019 respectively.	**Dairy (Carabao), Mango, Peanut, A/P Rice, Beef Cattle**
Isabela	Updated and approved by PDC & SP on April 27, 2017 & July 11, 2017 respectively.	**Dairy (Carabao & Cattle), Mungbean, A/P Rice, Tilapia**
Quirino	Updated and approved by SP on December 8, 2018.	**Coffee, Banana**
Nueva Vizcaya	Updated and approved by PDC & SP on March 1, 2019 & June 24, 2019 respectively.	**Mandarin, Onion, Tomato, Coffee, Pineapple**
Santiago City	**U**pdated and approved by CDC & SP on March 21, 2019 & April 2, 2019 respectively.	**Peanut, Mungbean, Beef Cattle, Mango, Tilapia, Dairy (Carabao)**

Nueva Vizcaya Provincial Commodity Investment Plan (PCIP) Updating Workshop cum Stakeholders Consultations

All the PCIPs of the five (5) provinces of Region 02 were already updated and approved by their respective PDC and SP, including the independent chartered city, Santiago City. For 2019, the RPCO2 IPLAN Component assisted the Provinces of Cagayan, Nueva Vizcaya, and Isabela, and Santiago City to update their respective P/CCIPs to include their priority commodities.

For Nueva Vizcaya and Santiago City, their updated P/CCIPs were approved by their PDC and SP by the second quarter of 2019. The updated Cagayan PCIP which includes Peanut, A/P Rice and Beef Cattle as requested by the municipalities who want to engage in PRDP was approved by their SP on September 30, 2019. For Isabela, their updated PCIP was already endorsed to PDC and awaiting for their approval. These commodities included the updating were pineapple, mango, and beef cattle.

P/CCIPs Leveraging Mechanism

PROVINCE/CITY	PCIP LEVERAGED
Batanes	**PDC & SP Resolution, Pledge of Commitment**
Cagayan	**PDC & SP Resolution**
Isabela	**PDC & SP Resolution**
Quirino	**SP Resolution, Record of Discussions**
Nueva Vizcaya	**SP Resolution, Pledge/Letter of Commitment**
Santiago City	**CDC & SP Resolution**

The RPCO2-IPLAN conducted a study to support and enhance the PRDP proponent group profiling, operational guideline, and processing procedures. The study entitled “Assessment on the Performance of Agri-based Cooperatives in Region 02” aims to identify the best practices of cooperatives in the region to be used for the enhancement on the sustainability, financing, and operational arrangement and also to find out and document the perceived factors influencing the failures of selected agri-based cooperatives.

The Nueva Vizcaya State University (NVSU) Bayombong Campus was selected to be the Implementing Agency (IA). The Research Team are from College of Business and Administration, headed by Dr. Cristina R. Salvosa. The Inception Report and the proposed work plan for the assessment was presented by the Research Team to RPCO2 for review and enhancement on June 28, 2019. The final project design was then endorsed to PSO on July 19, 2019 for review and it was given No Objection Letter (NOL) on August 7, 2019.

The 1st PRDP RPCO2 Implementation Support Mission was conducted on July 16-17, 2019 in Santiago City.

For the months of September and October, the Research Team randomly selected 30 agri-based cooperatives in the region for the survey and conducted KII and FGD in the Provinces of Cagayan and Isabela. The FGD and KII in Nueva Vizcaya and Quirino will be held in November and the initial report of the assessment is expected to be presented to RPCO2 on the last week of December 2019.

The assessment for Climate-Risk Vulnerability aims to evaluate exposure, sensitivity, and adaptive capacity of the agri-fisheries sector to climate risks in Cagayan, to identify and prioritize province-specific climate risks that threaten the resilience of agri-fishery communities and to plan and design climate-risk responsive research and development interventions to build resilience among agri-fishery communities.

The DA-RFO 02 PMED Team assisted RPCO2 IPLAN in the conduct of orientation, training and workshop to attain the expected output of the assessment. The CRVA Orientation cum Training was conducted on August 22, 2019 and participated by all Municipal Agriculturists in Cagayan. The activity was first conducted to familiarized on the concept of the study and to prepare and inform them on the data to be used on the workshop proper.

On August 27-28 & 29-30, 2019, two (2) batches of workshop were conducted to gather data on sensitivity, hazard and adaptive capacity on all the municipalities in Cagayan. The first batch composed of the upstream municipalities and the second batch composed of the downstream municipalities. The output of the workshops was then consolidated and analyzed on October 24-25, 2019. The output of the assessment will be utilized in the identification of AMIA Village in Cagayan. The CRVA Map and final output was presented to the MAs for further enhancement on November 15, 2019.

Due to its positive implications on the implementation of PRDP subprojects, the World Bank Implementation Support Mission which is conducted every semester throughout clusters was adopted by RPCO2. The adoption of the best practices of the mission to RPCO2 will prepare the PRDP Staff, P/CPMIUs and Proponent Groups (PGs) on the upcoming 9th World Bank Mission.

The 1st PRDP RPCO2 Implementation Support Mission was conducted on July 16-17, 2019 in Santiago City. Among the activities held during the mission were field visits on the completed IBUILD and IREAP Subprojects, public consultations on the beneficiaries on both SPs and assessment on the accomplishments of the region.

The field visits and public consultations were held on the first day. The IBUILD SP visited was the Maria Clara-Gabriela Silang FMR in Diffun, Quirino and for IREAP, the Peanut Production and Marketing Enterprise of Buenavista Multi-Purpose Cooperative in Santiago City. On the second day, reporting of accomplishments per province and breakout session per component/unit was conducted.

Approved Work and Financial Plan (WFP) for 2015-2019

YEAR	AMOUNT
2015	7,508,000.00
2016	7,830,000.00
2017	8,879,950.00
2018	7,078,340.00
2019	4,380,000.00
TOTAL	335,676,290.008

II. INVESTMENTS FOR RURAL ENTERPRISES AND AGRICULTURAL AND FISHERIES PRODUCTIVITY (I-REAP) COMPONENT

Enterprise Identification/Prioritization

The priority interventions identified in the PCIP will be the basis in the identification of possible product segments or enterprises. The identified product segments or enterprises will be prioritized by the P/C/MPMIU with guidance from the RPCO using the criteria set in Annex 6 of I-REAP Operations Manual to determine the enterprise(s) that will undergo business plan preparation. A draft business model for the proposed enterprise will be prepared by the P/C/MPMIU which will be the basis in inviting possible Proponent Groups.

Enterprise Prioritization for the Province of Nueva Vizcaya was conducted last February 11, 2019 at the Provincial Cooperatives Affairs' Office, Bayombong, Nueva Vizcaya. It was participated by the representatives from the Office of the Provincial Agriculture (OPA) and PPMIU Nueva Vizcaya I-REAP Component and I-PLAN Component.

Each enterprise identified went over the different criteria and followed the score point system objectively. After a lengthy deliberation with significant inputs from Engr. Oscar V. Andrada, the body came up with the following results:

1. Production and Marketing of Coffee Berries – 1st rank
2. Processing and Marketing of Dried GCB/RGC – 2nd rank
3. Coffee Trading – 3rd rank
4. Organic Fertilizer Production – 4th rank
5. Agri-inputs Trading – 5th rank
6. Seedling Production Enterprise – 6th rank
7. Transport and Hauling Services – 7th rank

Once the product segment is selected, the P/C/MPMIU assisted by RPCO will formulate a business model. This is to ensure that commodity farmers will benefit from the proposed enterprise. Moreover, business model will be used during the crafting of business plan.

RPCO I-REAP, Econ and I-BUILD assisted PPMIU Nueva Vizcaya in finalizing the Business Plan (with Infrastructure) based on the comments during the Joint PSO Technical Review. Comments and Recommendations were discussed and resolved.

Proponent Group Selection

The selection of the Proponent Group (PG) is very critical as this would determine the success of the project. The potential PGs must submit the eligibility requirement based on the I-REAP manual. Cooperatives and/or associations which signify their intention will submit the eligibility requirements and this will be reviewed by the Provincial Project Management and Implementing Unit (PPMIU) I-REAP Component with the guidance of the RPCO 02 I-REAP Component using the following criteria (Annex 9-A and 9-B). The highest ranking PG will be selected as the Lead Proponent.

The I-REAP Component conducted two (2) Proponent Group Selection for this year.

SP NAME	PG NAME	DATE CONDUCTED	VENUE
offee Production and Marketing Enterprise	Tiblac-Langak Farmers' Association	**March 29, 2019**	**Provincial Cooperative Affairs' Office, Bayombong, Nueva Vizcaya**
Coffee Processing and Marketing Enterprise	Buenavista Multi-Purpose Cooperative (BMPC)	**March 29, 2019**	**Provincial Cooperative Affairs' Office, Bayombong, Nueva Vizcaya**
pia Fingerlings Production and Marketing Enterprise	Ramon Farmers Multi-Purpose Cooperative (RAMFARMCO)	**April 30, 2019**	**Provincial Veterinary Office, Alibagu, Ilagan City,Isabela**

Eligibility documents of the three (3) PGs selected were submitted to PSO for review and validation.

Proponent Validation

Proponent Group and site validation were conducted by the PSO and/or with the assistance of RPCO after the P/C/MPMIU has identified the enterprise and the PG who will implement the enterprise.

The PG validation was conducted in the municipality of Ambaguio particularly on the existing and proposed coffee production areas of the Tiblac-Langak Farmers Association (TLFA) on May 15-16, 2019. Likewise, another set of validation team were assigned in the validation of the proposed project in Cordon, Isabela on May 16, 2019, for the existing fingerlings production business of the Wigan Settlers MPC. During the validation, selected coffee and hatchery operators including management staff was interviewed with regard to their farming activities. Suggested sites for the construction of facilities under the proposed projects were also validated.

Exit conference were conducted after validation. The NPCO and PSO Luzon A cluster discussed with the RPCO staff, PPMIUs and PGs their observations, comments, suggestions and other pertinent matters that will be integrated in their respective business plans.

Business Planning Workshop and Packaging

Once the enterprise was prioritized and PG was selected and the PSO already issued a confirmation letter, said PGs are now ready to undergo for a business planning workshop. The RPCO will facilitate the conduct of the Business Planning Workshop and assist the PG and the P/C/MPMIU in preparing the business plan.

Business Planning Workshop for Tilapia Fingerlings Production and Marketing Enteprise of Wigan Settlers MPC and Coffee Production and Marketing Enterprise of Tiblac-Langak Farmers Association was conducted last July 9-12, 2019 at DA-SCRC Iguig, Cagayan. It was participated by different PRDP components and units from PPMIU Isabela and Nueva Vizcaya, PGs management staff and representatives from PRDP RPCO 02 with the assistance of technical experts for each commodity. The main output of the workshop is the draft business plans for the proposed subproject. After the workshop, business plans will be subjected to Joint Technical Review at the PSO level with the presence of all components and units from NPCO, PSO, RPCO, PPMIU and the PG prior to the conduct of compliance review.

Focus Group Discussion of the Dairy Industry Stakeholders in Region 02

The current production of milk in the country cannot supply its current demand and still heavily relies on import, based on the Value Chain Analysis of Milk in Region 02. The PRDP, through its I-REAP Component, had initiated the conduct of Focus Group Discussion for dairy stakeholders in order to gather information and identify interventions needed by the dairy stakeholders in support to the development of the dairy industry in Region 02. FGD for dairy stakeholders was conducted on July 12, 2019 at DA-Isabela Experiment Station (DA IES), Upi, Gamu, Isabela. The activity was participated by DA RPCO 02 spearheaded by Regional Technical Director RoseMary G. Aquino and RTD Roberto C. Busania, Provincial Veterinarian, Livestock Division of PLGUs, Philippine Carabao Center (PCC),

I-REAP Component provided the output results of the action plan of each dairy raisers participated in the FGD to the livestock and banner programs on July 22, 2019 for possible inclusion on their plans and programs.

Sec. William D. Dar visits Tilapia Enterprise in Ramon, Isabela
October 3-4, 2020

Business Process Review/ Enterprises Assessment

The activity was facilitated by representatives from RPCO I-REAP, C/PPMIU, PSO, and NPCO. The objectives of the activity were to (a) assess the current status of the enterprise operation in the aspects of management, marketing, technical, financial, and sustainability; (b) determine strong and weak points of the enterprise management; (c) identify emerging positive results of the operation; and (d) prepare an action plan based on the result of the assessment.

It was administered through a face-to-face interview with the Proponent Group using a structured questionnaire devised by NPCO I-REAP. Based on the results of the assessment, SWOT Analysis and Capacity Development Plan regarding all aspects of the enterprise were developed.

The following enterprise were assessed:

SP NAME	PG NAME	DATE CONDUCTED	VENUE
Mandarin Production and Marketing Enterprise	Malabing Valley Multi-Purpose Cooperative (MVMPC)	**July 22-24, 2019**	**MVMPC, Bagahabag, Nueva Vizcaya**
Peanut Production and Marketing Enterprise	Buenavista Multi-Purpose Cooperative (BMPC)	**October 1-2, 2019**	**BMPC, Santiago City, Isabela**
Tilapia Production and Marketing Enterprise	Ramon Farmers Multi-Purpose Cooperative (RAMFARMCO)	**October 3-4, 2019**	**RAMFARMCO, Planas, Ramon, Isabela**

Enhancement/ Finalization of the Enterprise Operations Manual (EOM) of Approves I-REAP Sub-Projects

The activity was conducted on December 3-4, 2019 (1st batch) participated by Proponent Groups from Nueva Vizcaya and Santiago City and on December 5-6, 2019 (2nd batch) participated by Proponent Groups from Isabela and Quirino Province. It was facilitated by RPCO 02 I-REAP, and representatives from C/PPMIU I-REAP and Finance of the respective provinces. Mr. Nilo A. Aquino, Business Development Officer, served as the Resource Person of the activity.

Previously drafted Enterprise Operations Manual will be presented by the PG and will be critiqued by the facilitators. Upon approval of PSO/PSO, the Proponent Group will present the finalized and reviewed EOM to the General Assembly for approval. Signatories identified will then sign in the EOM.

The EOM of the following Proponent Groups were finalized:

PG NAME	DATE CONDUCTED	VENUE
BATCH 1		
1. Malabing Valley Multi-Purpose Cooperative (MVMPC)	**December 3-4, 2019**	**MVMPC Building, Bagahabag, Solano, Nueva Vizcaya**
2. Federation of Aritao Rural Improvement Club (FARIC)		
3. Samahan ng mg OFW ng Santiago City Consumers Cooperative (SOSCCC)		
4. Farmers Council Irrigators Association (FCIA)		
5. G10 Council Irrigators Association (G10-CIA)		
6. Buenavista Multi-Purpose Cooperative (BMPC)		
BATCH 2		
1. Cabatuan Savings Development Cooperative (CASADECO)	**December 5-6, 2019**	
2. San Agustin Dairy Cooperative		
3. Ramon Farmers Multi-Purpose Cooperative		
4. Isabela Grains Production and Marketing Cooperative (IGPMC)		
5. San Mateo Rural Improvement Club (SMIRC)		
6. Mataga-ay Coffee Growers Producers Cooperative (MGCPC)		
7. Cofcaville Banana Farmers Producers Cooperative (CoBaFPCo)		

III. INVESTMENTS FOR RURAL ENTERPRISES AND AGRICULTURAL AND FISHERIES PRODUCTIVITY (I-BUILD) COMPONENT

Among the four components of PRDP, the I-BUILD shares the biggest chunk of the project's budget allotment. As of December 2019, there are 40 approved I-BUILD subprojects with a total cost of Php 2,081,769,809.88. Since this component is expected to establish a network of strategic rural infrastructure linking priority value chains in targeted project areas that are identified through the regional AFMPs. These infrastructure projects include farm-to-market roads (FMRs), bridges, communal irrigation systems (CIS), small water impounding projects (SWIP), potable water systems (PWS), production and post-production facilities and other support infrastructure such as fish landings, fish sanctuary/protected area guardhouses and others.

Twenty six (26) subprojects are 100% completed. Eleven (11) FMRs, two (2) from the Province of Cagayan, four (4) from Isabela and five (5) from Quirino. Six (6) SWIPs, one (1) diversion dam and warehouse with solar dryer from the Province of Isabela. Seven (7) civil works or infrastructure support, two (2) from Cagayan, Isabela and Quirino Province and one (1) from Nueva Vizcaya.

There are two (2) ongoing subprojects from the Province of Cagayan which inlude FMR and CIS. Eight (8) in Isabela, which include FMR (2), SWIP (2) and warehouse (4). While LGU Ambaguio, Nueva Vizcaya, and CLGU Santiago City have two (2) ongoing FMRs. Two (2) FMRs are also ongoing in the Province of Quirino.

Thirty six (36) subprojects are pipelined with a total cost of 3,381,936,999.56. Twelve (12) are for issuance of NOL 1, seven (7) are approved by RPAB and for endorsement to NPCO and 17 are under FS and DED preparation.

The InfoACE Unit of the Regional Project Coordination Office 2 (RPCO 2) has been true to its commitment for the Information, Education and Communication Advocacy of the Department of Agriculture's Philippine Rural Development Project (DA-PRDP) and as the information arm of the Project, it has widened its reach.

Sec. Dar- Turns Over PRDP Subprojects in Cagayan Province

IV. IMPLEMENTATION SUPPORT TO PRDP (I-SUPPORT)

A. Information, Advocacy, Communication and Education (InfoACE) Unit

Real-Time Reporting. For CY 2019, it has fortified its information campaign by real-time reporting on social media. Real-time uploading of photos, news bits, and onfield "situationers" had been done every day, thus the visibility of DA-PRDP on Facebook and connection with stakeholders have been sustained.

Audio Visual Presentations. Shown in cinematic style, AVPs were packaged and broadcasted during events such as coordination meetings, Monday Convocations, RPAB Conferences and Cluster Meetings. It has packaged a total of six (6) full-blown AVPs. These were also posted on the social media pages and have accumulated at least 2,000 likes and more than 15,000 views.

IEC Materials like flyers and brochures. For flyers and brochures, the InfoACE Unit has printed and distributed 250 flyers and brochures thrice. During the RPCO 2 Implementation Support Mission (localized WBISM, first of its kind) in Ramon, Santiago, and Quirino; the 9th World Bank Implementation Support Mission in Santiago City and Planas, Ramon, Isabela, and Agriculture Secretary William Dar's visits in Namabbalan, Tuguegarao City and Planas, Ramon.

Infographics. Infographics, (a clipped compound of "information" and "graphics") are graphic visual representations of information, data, or knowledge intended to present information quickly and clearly were generously utilized as these can improve cognition by utilizing graphics to enhance the human visual system's ability to see patterns and trends. These graphical patterns were used constantly and utilized to enhance brochures and AVPs.

Press Releases to PRDP North and other News Outfit. Weekly full-blown stories and features on subproject implementation, groundbreaking and turn over ceremonies, visits of dignitaries and real-time news are submitted to PIA, DA RFO 2 RAFIS (Bounty Valley), and PRDP North Luzon. For Bounty Valley, three full-blown articles are published and circulated monthly (36 articles for 2019).

Television. AVPs were also submitted to RBC TV and Cable Network and were shown for viewers in different time slots.

Broadcast. News and commentaries were also broadcasted at AgriEspesyal, DZDA. The program is aired once a week. A radio plug on PRDP's Geotagging and Governance, a science-based tool was also aired in DZDA and other local radio stations.

Talking Heads. After field interviews of beneficiaries, component heads and PPMIU's, talking heads were graphically generated into compress image data and were sent to the Project Support Office. Ten (10) talking heads were submitted to the Project Support Office (PSO) and to the National Project Coordination Office (NPCO).

The InfoACE Unit has employed quad-media in information dissemination. It has put a rein on social media for easier access to sharing platforms. The unit has uploaded cinematic AVPs, talking heads, news, and photos and has availed of the unlimited platforms to connect with stakeholders and build a bigger audience.

B. Monitoring & Evaluation (M&E) Unit

Training on the Involvement of Citizens in Monitoring Rural Infrastructure Subproject

February 19-22, 2019

1. Rehabilitation of Oscariz - Nagbacalan Farm-to-Market Road (Municipality of Ramon, Isabela Province)
2. Rehabilitation of Tiblac – Duli Farm-to-Market Road (Municipality of Ambaguio, Nueva Vizcaya)

March 19-22, 2019

1. Rehabilitation of National Road Junction- Ricarte Sur-Magsaysay Farm to Market Road (Province of Quirino)
2. Rehabilitation of Lusod-Sto Niño Farm-to-Market Road (Province of Quirino)
3. Rehabilitation of Baluarte-Sinili Farm-to-Market Road, Santiago City, Isabela

Rapid Appraisal of the Emerging Benefits (RAEB)

August 13-16, 2019

1. Construction of Dummon SWIP, Quezon, Isabela

October 29-31, 2019

1. Construction of Capirpiriwan Diversion Dam (DD), Cordon, Isabela

Facilitated and Assisted in the Conduct of Operation and Maintenance Audit for Completed Subprojects:

September 10- 12, 2019

1. Rehabilitation/Construction of Olango-Siempre Viva-Trinidad-Manano Farm-to-Market Road
2. Rehabilitation/Construction of Barangay District III-Barangay Sta. Cruz Farm-to-Market Road
3. Rehabilitation/ Improvement of Magassi-Union-Camasi Farm-to-Market Road

October 2-4, 2019

1. Rehabilitation of PRJ-Dibibi-Dingasan Farm-to-Market Road
2. Rehabilitation of National Road Junction-Ligaya-Villa Pagaduan Farm-to-Market Road
3. Rehabilitation of National Road Junction- Maria Clara-Gabriela Silang Farm-to-Market Road
4. Rehabilitation of NRJ-Palacian-Ramos Farm-to-Market Road

C. Social and Environmental Safeguards (SES) Unit

For the year under review, the Social and Environmental Safeguards Unit of RPCO2 was engaged primarily in the task of assisting the local government units to obtain and complete the documentary requirements of each subproject submitted for funding. This is consistent with the mandate of RPCO SES to ensure the inclusion of all safeguards-related concerns in the preparation of the feasibility studies and the business plans through the provision of technical assistance.

For 2019, 14 on-going subprojects were monitored periodically for compliance to their SES commitments as embodied in the Social and Environment Management Plan (SEMP). The SES Compliance Monitoring Checklist served as the basis for monitoring SES compliances.

Cumulatively, there were 20 Regional Project Advisory Board (RPAB) approved I-BUILD subprojects at varying stages of documentary compliance that entailed regular follow-up by the SES. Of these 20 subprojects, three (3) were approved in 2019. The rest are carry-over subprojects dating back to as early as 2016 to 2018.

As a result of the continuing advocacy encouraging the participation of LGUs in PRDP, the municipality of Alicia, Isabela and Lasam, Cagayan are requested for a comprehensive briefing on PRDP by each component and unit, SES included.

A total of 18 subprojects most of which are proposals for Potable Water System (PWS), were subjected to the joint validation process to determine the eligibility of the proposals for funding support from the PRDP.

For I-REAP, there were three (3) subprojects, all in the Province of Batanes, that had a number of lacking documents. However, the Wakay Production and Marketing Enterprise proposal was able to comply and a No Objection Letter was granted before the end of the year.

The SES Unit has been a participant to three (3) project management meetings held in the Provinces of Cagayan and Isabela. These project management meetings served as the venue to help resolve implementation problems of subprojects experiencing negative slippages. The submission of a number of feedbacks gathered during field visits tested the reliability of the GRM process in grievance resolution.

Aside from participation in joint site inspections and validation for progress billing of on-going subprojects, Subproject Appraisal Reviews (SPAR), joint monitoring visits and JTRs, SES staff also attended pre-bid, bid opening, and pre-construction conferences gave pre-construction briefings underscoring the responsibilities of both the procuring entity, the LGU, and the contractor.

Additionally, during the year, the RPCO2 SES team undertook the conduct of the GRM Survey and Roll-out in the region in coordination with both PSO and NPCO counterparts.

Other major PRDP activities participated in by SES and for which inputs were required are as follows: conduct of the RAEB for Communal Irrigation Systems, the Construction Management Training, Business Planning sessions initiated by I-REAP, the preparation of project briefs and profiles for the 9th World Bank Mission hosted by the Province of Isabela in November 2019.

D. Geomapping and Governance Unit (GGU)

The Geo-mapping and Governance Unit (GGU) with the use of the Applied Geo-Tagging Technology (AGT) aims to promote holistic planning, transparency and accountability that will deepen the impacts and institutionalization of such reforms within and outside the department.

With the implementation of the PRDP Subprojects for CY 2019 in Region 02, the GGU provided critical support functions, as follows:

1. Assistance and active participation in the conduct of JIT, review of geotagged photos and issuance of AGT certification as one of the required documents for billing to fast track billing process.
2. Updating of the MIS
3. Documentation during the conduct of RAEB and OMAS with the use of geotagging
4. Active participation in the conduct of validation of subprojects to check overlapping of other funded subproject and avoid overlapping of Road Influence Area to other existing projects help determine exact location of the proposed projects
5. Actively participated in the conduct of SPAR and JTR and assist LGUs/MLGUs and PLGUs in their compliances under GGU guidelines

E. Procurement Unit

This annual procurement report covers the procurement activities of RPCO2/MPMIU/CPMIU/PPMIU and PGs from January 1, 2019 to December 31, 2019.

The scope of this report includes the sub-project issued NOL 1, NOL 2, completed sub-projects, related trainings, workshop/technical assistance and meetings for both I-REAP and I-BUILD sub-projects.

Prior to the issuance of NOL 1, all proposed sub-project undergo different level of review and one of those stages is the procurement. The required documents reviewed by the procurement are the Procurement Plan, Pre-canvass with the specification, the mode of procurement to be used and the draft Philippine Bidding Documents for civil works.

Prior to the issuance of NOL 2, through the shopping method, there is a proper procurement process conducted with the technical assistance and review of related documents by the RPCO 2 Procurement Unit. Procurement Activities are as follows:

1. Preparation and approval of PR, Procuring Entity (PE) posting of the ITQ in the PhilGEPS
2. Canvassing, submission and opening of quotation, conduct of post-qualification, PLGU Bid Evaluation Report, BAC Resolution.
3. RPCO2 BER Review Report and PSO BER Review Report.

The procurement process/activities of all I-BUILD sub-project are based on the PRDP Harmonized Procurement Guidelines for both National Competitive Bidding and shopping method. Prior to the issuance of NOL 2 the following activities are properly conducted:

1. Pre-procurement conference, Published / Posted advertisement to bid in the PhilGEPS
2. Pre-bid Conference, Evaluation/Opening of Bid Proposal,
3. Joint Post Qualification,
4. P/M/CBAC Bid Evaluation Report,
5. BAC Resolution,
6. RPCO2 BER Review Report
7. PSO BER Review Report.

Procurement milestone was properly conducted and completed based on the PRDP harmonized procurement guidelines. RPCO 2 procurement unit together with our partners in the MPMIU/CPMIU/PPMIU and PGs contributed in the percentage of project completion likewise the PSO and other connected components and units.

DA RFO 02 holds Bantay Presyo briefing

Malasakit at Disiplina Tungo sa Matatag at Maayos na Bansa

DA RFO 02 briefs swine raisers on ACEF Loan

DIRECTORY

DA RFO 02 OFFICIALS

DIR. NARCISO A. EDILLO, M.A.Ed.
Regional Executive Director and PRDP Project Director

(078) 396-1328/ (078) 844-1031

ored.rfo2@da.gov.ph

DIR. ROSE MARY G. AQUINO
OIC - Regional Technical Director for Research, Regulatory & Finance and Administrtive Concerns and PRDP Deputy Project Director

(078) 396-9769/ (078) 846-2904

rtdresearchregulatory.rfo2@da.gov.ph

DR. ROBERTO C. BUSANIA
OIC - Regional Technical Director for Operations & Extension and BAC Chairperson

(078) 304-0422 / (078) 844-9398

rtdoperations.rfo2@da.gov.ph

Division Chief

MR. JAIME M. PAGALILAUAN
Chief, Finance and Administrative Division

(078) 396-9678

fad.rfo2.da.gov.ph

MS. KAY S. OLIVAS, MPA, MABE, EnP
Chief, PMED & PRDP RPCO I-PLAN Component Head

(078) 396-1527

pmed.rfo2.da.gov.ph/ kay.olivas@gmail.com

ENGR. GENEROSO M. OLI
Chief, FIeld Operations DIvision

(078) 396-2629

operations.rfo2.da.gov.ph

MS. MA. ROSARIO U. PACCARANGAN
Chief, Agribusiness and Marketing Division & PRDP RCPO Head I-REAP Component Head

(078) 304-2234

amad.rfo2@da.gov.ph

MS. LOVELYN A. GASPAR
OIC Chief, Research DIvision

(078) 304-2234

research.rfo2@da.gov.ph

DR. ERNESTO GUZMAN
Chief, Regulatory Division

(078) 304-2312 / (078) 844-9398

regulatory.rfo2@da.gov.ph

ENGR. RESTITUTO E. SAMATRA
Chief, Regional Agricultural & Engineering Division and PRDP RPCO I-BUILD Component Head

(078) 844-1248

raed.rfo2@da.gov.ph/ resamatra@gmail.com

DR. GERLY T. ZULUETA
OIC Chief, Integrated Laboratory Division

(078) 377-0256

ild.rfo2@da.gov.ph

Banner Program Coordinator

DR. MARVIN B. LUIS
Regional Rice Program Focal Person

(078) 304-3696

da_rice02@yahoo.com

MS. NENITA M. YABIS
Regional Corn Program Coordinator

(078) 844-8742 / (078) 304-0479

corndarfo2@gmail.com

DR. ANITA C. ASUNCION
Regional Livestock Program Coordinator

(078) 377-0263

livestock.darfo2@gmail.com

ENGR. BLESITA C. TEGA
Regional High Value Crops Program Focal Person

(078) 844-0120

hvcdpregion2@gmail.com

MS. REMEDIOS A. DELA ROSA
Regional Organic Agriculture Focal Person

(078) 396-9769/ (078) 846-2904

2.da.organic@gmail.com

Center/ Station Manager

ENGR. ROLANDO D. PEDRO
Officer-in-Charge Center Chief,
Cagayan Valley Research Center

(078) 622-0961

cvrc.rfo2@da.gov.ph

ENGR. MONICO R. CASTRO
Center Chief, Southern Cagayan Research Center

(078) 501-0889

scrc.rfo2@da.gov.ph

MS. MARINA ACEBEDO
Officer-in-Charge Station Chief,
Nueva Vizcaya Experiment Station

nves.rfo2@da.gov.ph

MR. DEMETRIO TANG
Officer-in-Charge Center Chief,
SCRC-Cagayan Breeding Station

scrccbs.rfo2@da.gov.ph

ENGR. FIDELINO R. CABANTAC
Officer-in-Charge Station Chief,
Quirino Experiment Station

qes.rfo2@da.gov.ph

DR. MARILOU B. AGAID
Station Chief, Northern Cagayan Experiment Station

nces.rfo2@da.gov.ph

DR. JACQUELINE Z. GUMIRAN
Officer-in-Charge Station Chief,
Isabela Experiment Station

qes.rfo2@da.gov.ph

MR. CELSO BATALLONES
Station Chief, Batanes Experiment Station

bes.rfo2@da.gov.ph


DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE NO. 2
OFFICE OF THE REGIONAL EXECUTIVE DIRECTOR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REGIONAL FIELD OFFICE NO. 2
OFFICE OF THE REGIONAL EXECUTIVE DIRECTOR

Our Quality Policy

We, the DEPARTMENT OF AGRICULTURE - REGIONAL FIELD OFFICE 02, commit to transform our agriculture sector into empowered farming communities through inclusive growth.

We shall build an enabling environment for agriculture to grow and be globally competitive in a diversified regional economy. As our moral obligation, we shall contribute to nourish and sustain every Filipino's need and right to enjoy sufficient, safe, accessible and affordable food at all times.

In Responding, Engaging and Delivering our products and services, we shall be guided by the principles of social justice and equitable development, imbued with the values of loyalty, integrity, resourcefulness, teammanship, service-orientedness and continuous learning.

We shall continually improve our Quality Management System to be better, more responsive and relevant in making a difference "PARA SA MASAGANANG AGRIKULTURA, MASAGANANG BANSA".

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Accreditation No:
MSA-001

DEPARTMENT OF AGRICULTURE
CERTIFICATE
Nº CIP/5310/17/11/1015

EDITORIAL ADVISERS

DIR. NARCISO A. EDILLO, M.A.Ed.
Regional Executive Director

DIR. ROSEMARY G. AQUINO
OIC-Regional Technical Director for Research, Regulatory and Finance and Administrative Concerns

DIR. ROBERTO A. BUSANIA, DVM
OIC-Regional Technical Director for Operations and Extension

CONTRIBUTORS

Division Chiefs

Banner Programs Focal Person

Regional Agricultural & Fisheries Information Section (RAFIS)

Operating Units

PREPARED & PRODUCED

Editor-in-Chief
KAY S. OLIVAS, MPA, MABE, EnP
Chief, Planning, Monitoring & Evaluation Division

Associate Editors
BERNADETTE T. GALOSO
JONAZON JEFF T. FACTORA

Layout and Design
JAKE A. GUIYAB

Print and Distribution
GERSON A. ABAD
JOANNA MARIE SORIANO

Planning, Monitoring & Evaluation Division (PMED)
Tel. No. : (078) 396-1527
Address: San Gabriel, Tuguegrao City, Cagayan
Email: pmed.rfo2@da.gov.ph
http://rfo02.da.gov.ph

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