Department of Agriculture- RFU 1

ANNUAL REPORT

DEPARTMENT OF AGRICULTURE
1898

FOREWORD

CY 2011 has been a very challenging year for the Department of Agriculture-Regional Field Unit I. In a span of 12 months, the challenge to lead the agriculture sector here has been passed from one leader after another. On the first semester, then Regional Executive Director (RED) Cipriano G. Santiago welcomed the year with great expectations of steering the sector into greater heights, taking lessons and guidance from the previous year's accomplishments and setbacks, but attainment of these vision was thrust forward in the hands of a new leader with the transition of leadership from RED Santiago to Officer-in-Charge (OIC) Dir. Renato A. Maguigad.

An excellent agriculturist and training specialist, Dir. Maguigad took over the wheel and continued Dir. Santiago's vision to make a more dynamic and need-responsive agriculture in Region I. Revised strategies were executed and adopted in pursuit of a common objective to provide brighter prospects for the region's agriculture sector.

But seemingly a chain of unending modifications, I was given the marching order to serve as the new OIC of DA-RFU I at the last quarter of the year.

It was an unexpected challenge but one I dauntlessly accepted. I was face with a herculean task to continue the noble visions of my predecessors.

Determined to put in place the necessary adjustments to make 2011 a better year, the sudden transition from my previous environment to a more defined planting seasons of the Ilocos Region was a real challenge to understand and adopt.

But with the support I received from the whole DA-RFU I family who relentlessly embraced and delivered their tasks nowithstanding the broad reforms that came along, and with the foundation that have been laid down by the previous leaders before me, the changes served as variance necessary to make the region's agriculture sector a multi-dimensional anchor that provided a stronger pillar for our farmers and fisherfolk.

Hence, with our concerted efforts, Region I agriculture sustained a positive growth in 2011 and remains the top producers of rice, corn, high value crops such as mango, garlic, tomato, eggplant, onion, and a source of quality livestock, poultry and fishery products in the country.

Indeed, our accomplishments are product of our resiliency amidst drastic changes that come along our way. If there is no change, there is no growth, so to speak.

And indeed, according to one famous inventor, " it is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change'".

May our works be the Change we want the world to see...Carry on!

VALENTINO C. PERDIDO, Ph.D.
OIC-Regional Executive Director

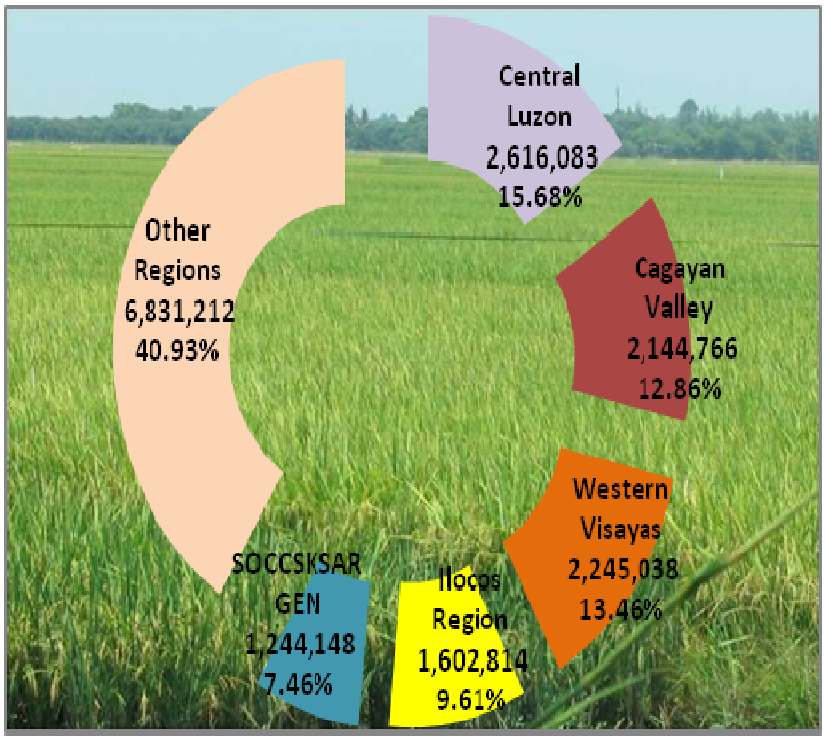
PERFORMANCE OF THE AGRI-FISHERY SECTOR

A. PRODUCTION PERFORMANCE

RICE

Region I ranked 4th among the major rice producing regions in the country. Contributing 9.61% to the national rice production.

This year, the volume of rice production in Region 1 grew by 2.85% from 1.56 million metric tons in 2010 to 1.6 million metric tons (Table 1). The increase in production was attributed to the improved productivity which went up by 3.30% from the 2010 level, as a result of sustained use of hybrid and certified inbred seeds and increased irrigated areas from restored/rehabilitated irrigation systems. Production and yield of all provinces exhibited positive growth especially in La Union and Ilocos Sur. Ilocos Norte posted the highest yield among the provinces in the region.



Source: Bureau of Agricultural Statistics (BAS)

On the other hand, total area harvested declined by 0.43% due to damages brought by Typhoons Mina, Pedring and Quiel this year. La Union and Ilocos Sur, however, showed increase in area by 4.47% and 0.17%, respectively. Pangasinan, which contributed the largest area of rice, posted the highest decrease at 1.26%.

Table 1. Production (MT), Area (Ha) & Yield (MT/Ha) of Rice CY 2010-2011, Ilocos Region

Province	Production (MT)		GR (%)	Area (Ha)		GR (%)	Yield (MT/Ha)		GR (%)
	2010	2011		2010	2011		2010	2011	
Ilocos Norte	301,934	306,726	1.59	66,694	66,482	(0.32)	4.53	4.61	1.91
Ilocos Sur	183,182	191,152	4.35	47,661	47,744	0.17	3.84	4.00	4.17
La Union	132,557	146,666	10.64	34,228	35,758	4.47	3.87	4.10	5.91
Pangasinan	940,700	958,270	1.87	245,527	242,433	(1.26)	3.83	3.95	3.17
Region 1	1,558,373	1,602,814	2.85	394,110	392,417	(0.43)	3.95	4.08	3.30

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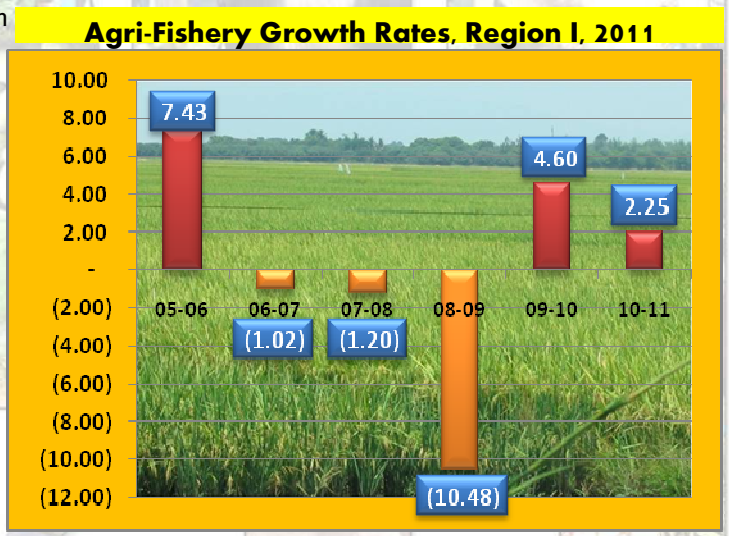
EXECUTIVE SUMMARY

In CY 2011, production of the the agri-fishery sector in Region I grew by 2.25%. Although this is lower compared to the 2010 growth rate of 4.60%, the positive growth rate is an indication that the sector is gradually improving its adaptive capacity to the ill effects of climate change.



Source: BAS

Positioning the agri-fishery contribution to the national outputs, Region I ranked 4th in rice production. The region contributed 9.61% or a total of 1.60 million metric tons to the national production of 16.68 million metric tons. The sustained use of hybrid and inbred seeds and increased irrigable areas from restored/rehabilitated irrigation systems significantly contributed to the increase in rice production by 2.85% and yield by 3.30%. On the other hand, total area harvested declined by 0.43% due to damages which were brought by Typhoons Mina, Pedring and Quiel.

For corn, Region 1 ranked 5th with 5.56% contribution to the country's production. Among all the regions, Region 1 was recognized to have the best quality of corn grains. Corn production increased by 8.21% from 358,445 metric tons produced in CY 2010 to 387,882 metric tons in CY 2011. Area harvested and yield increased as well by 2.44% and 5.63%, respectively. For the high value crops, Region 1 is the leading producer of mango, garlic, tomato, eggplant, peanut and mongo. This year, however, total production of all high value crops went down by 1.51% from 963,558 metric tons as compared to 978,314 metric tons of last year. The decline was mainly ascribed to the adverse effect of typhoons in Pangasinan, La Union and Ilocos Norte. Livestock production generally increased by a slight of 0.90%, with swine and poultry as the highest contributors. The region is also the major producer of *bangus* in the country. Fishery production increased by 9.19% with aquaculture as the main contributor.

In terms of sufficiency level, the region continued to be more than sufficient in almost all food commodities. A total of 5,849 jobs were generated from irrigation facilities, production and post harvest facilities/equipments, farm-to-market roads and fishery-related infrastructures.

These accomplishments were attained through the banner and regular programs as well as the special programs and projects of the Department.

Such special projects includes the Rice Processing Complex in Sta. Barbara, Pangasinan, the Livelihood Enhancement for Agricultural Development (LEAD) project, Agrikultura Kaagapay ng Bayang Pilipino (Akbay), Organikong Palayan in Pangasinan, and Agrcultural Competetiveness Enhancement Fund (ACEF).

Also, the project entitled "Upscaling Rural Enterprise Development (UPRED) through Innovative Goat Production Systems in Region I" won the Best Research Paper under the Development Category during the DA-BAR National Research Symposium held at Manila Hotel on October 12,2011. Said research project was also awarded as 2nd Best Research Paper under the Development Category during the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCARRD) National Symposium on November 10,2011 held at DOST-PCARRD, Los Baños, Laguna.

As implementing agency, DA-FU I was adjudged again the Most Outstanding Agency Monitor in 2011 by the Regional Development Council (RDC) thru the National Economic and Development Authority (NEDA) under its Regional Project Monitoring and Evaluation System (RPMES). Likewise, it was awarded 3rd place as the Best Project Implementer for the project "Establishment of Mechanical Flatbed Dryers in Region I'.

Furthermore, Region I bagged two (2) national awards for the 2011 Gawad Saka Search under the categories of Outstanding Rural Improvement Club (RIC) and Municipal Fisheries and Aquatic Resources Management Council (MFARMC).

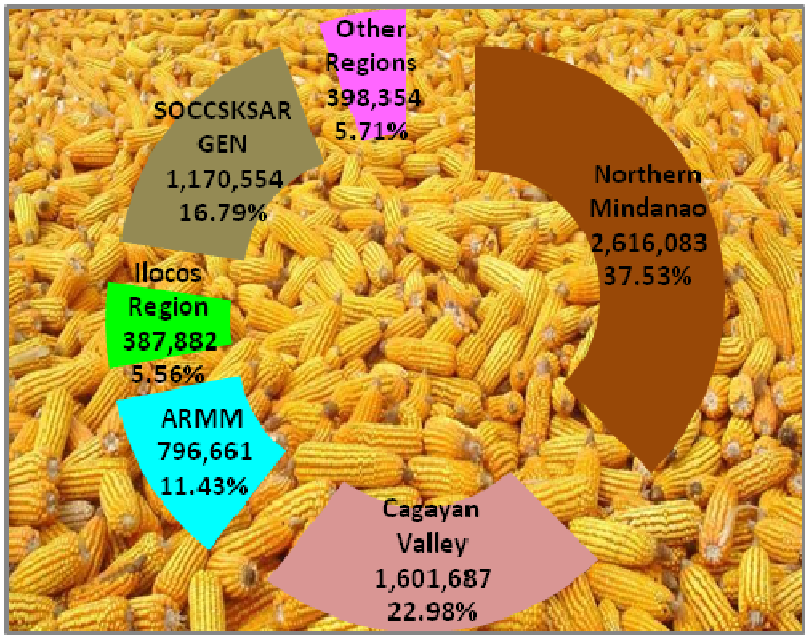
With the collaborative effort of all the region's stakeholder in pursuing these remarkable accomplishments, the DA-RFU I continues to look forward and achieve a vibrant agriculture sector in the Ilocos Region!

CORN

Region I, having the best quality of corn grains, shared 5.56 percent or 387,882 metric tons to the over-all production of corn of 6.97 million metric tons this year. Ilocos Region maintained its rank as the 5th corn producing region in the country.

The regional corn production registered 8.21% growth from 2010 output of 358,445 metric tons (Table 2) . All provinces in the region exhibited growth except Ilocos Norte. La Union registered the highest increase of production at 21.26% followed by Ilocos Sur at 14.89%. Pangasinan, which posted 8.05% increase in production over last year's level, was still the top producing province in the region. In terms of area harvested, Region 1 grew by 2.44% from 75,345 hectares of previous year to 77,182 hectares this year. Only Ilocos Norte showed a negative growth by 3.96% from 2010 output level due to crop shifting and typhoon damages during the second quarter of the year.

In terms of yield, Region I remained to be the highest yielder in the country. Its yield per hectare at 5.03 metric tons is higher by 2.29 metric tons than the national level of 2.74 metric tons. Yield of all provinces went up with an average increase of 5.63% in 2011.



Source: BAS

Table 2. Production (MT), Area (Ha) & Yield (MT/Ha) of Corn CY 2010-2011, Ilocos Region

Province	Production (MT)		GR (%)	Area (Ha)		GR (%)	Yield (MT/Ha)		GR (%)
	2010	2011		2010	2011		2010	2011	
IN	53,553	52,157	(2.61)	12,451	11,958	(3.96)	4.30	4.36	1.41
IS	55,341	63,579	14.89	12,408	12,853	3.59	4.46	4.95	10.91
LU	19,030	23,076	21.26	5,053	5,496	8.77	3.77	4.20	11.49
Pang	230,521	249,070	8.05	45,430	46,875	3.18	5.07	5.31	4.72
Region 1	358,445	387,882	8.21	75,342	77,182	2.44	4.76	5.03	5.63

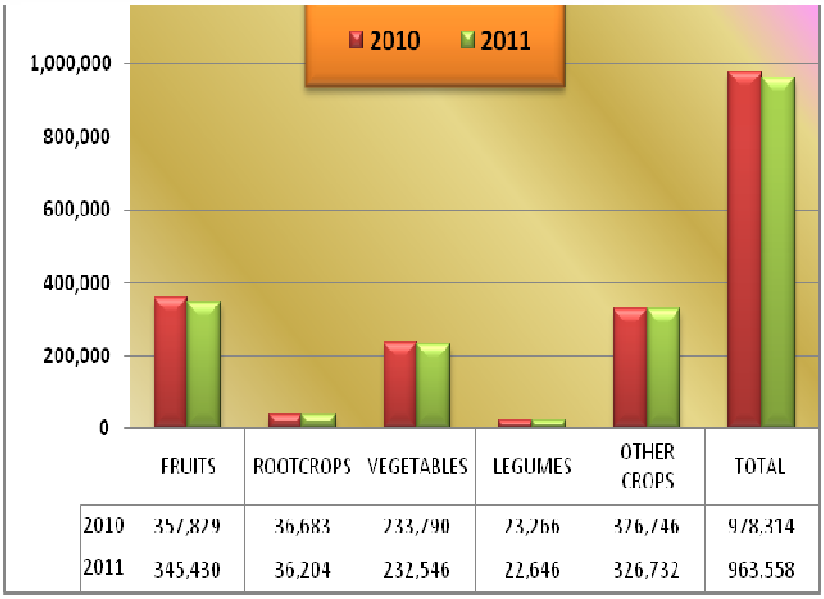
Source: BAS

HIGH VALUE CROPS

For the high value crops, Region I is the top producer of mango, garlic, tomato, eggplant, mungbean and peanut. The region provided 70% of locally-produced garlic in the country. Mango tomato, eggplant, mungbean and peanut contributed 30-40% to the national production.

This year, however, total production of all high value crops went down by 1.51% from 963,558 metric tons this year as compared to 978,314 metric tons of last year. The decline in the overall production was mainly ascribed to the adverse effect of Typhoons *Mina*, *Pedring* and *Quiel* in Pangasinan, La Union and Ilocos Norte. Fruits recorded the highest reduction in production by 3.47%, followed by legumes by 2.66%, rootcrops by 1.31%, and vegetables and other crops by 0.53% and 0.004%, respectively.

Total production of priority commodities, which include mango, eggplant, ampalaya, tomato, garlic, onion, peanut and mungbean, reached 499,545 metric tons.



	FRUITS	ROOTCROPS	VEGETABLES	LEGUMES	OTHER CROPS	TOTAL
2010	357,879	36,683	233,790	23,266	326,746	978,314
2011	345,430	36,204	232,546	22,646	326,732	963,558

Source: BAS

Said commodities, however, except for eggplant exhibited a negative production growth reflecting a decrease of 16,517 metric tons or 3.20% from the production in 2010 of 516,062 metric tons (Table 3). For *pinakbet* commodities, eggplant was up by 2.33% from 73,659 metric tons to 75,375 metric tons while ampalaya and tomato went down by 5.88% and 1.49%, respectively. Mango, which contributed the largest share to the total production, declined by 14,314 metric tons or 4.92% from 2010 production level.

Table 3. Production (MT) of High Value Crops CY 2010-2011, Ilocos Region

Priority Commodities	Production (MT)			
	2010	2011	Inc/Dec	GR (%)
Mango	290,975	276,661	(14,314)	(4.92)
Garlic	6,540	6,034	(506)	(7.74)
Onion	42,091	40,621	(1,470)	(3.49)
Tomato	69,616	68,579	(1,037)	(1.49)
Eggplant	73,659	75,375	1,716	2.33
Ampalaya	9,915	9,629	(286)	(2.88)
Peanut	12,120	11,566	(554)	(4.57)
Mungbean	11,146	11,080	(66)	(0.59)
TOTAL	**516,062**	**499,545**	**(16,517)**	**(3.20)**

Source: BAS

LIVESTOCK

Production of livestock and poultry grew slightly by 0.90% or 1,935 metric tons from 216,141 metric tons in 2010 to 218,076 metric tons in 2011 (Table 4). Both carabao and cattle production decreased by 1.27% and 1.79%, respectively. The decline was due to low stocks available for disposition. On the other hand, hog and goat showed gains in production due to sustained demand of chevon of "kambingan" hiway stall and hog supply.

Chicken production went up by 1.45% or 1,078 metric tons from 74,291 metric tons of 2010. The growth was attributed to the growing expansion of tunnel-vent type poultry production especially in Pangasinan. Duck also showed slight increase by 0.11% from previous year's level.

Table 4. Production (MT) of Livestock and Poultry CY 2010-2011, Ilocos Region

Commodities	Production (MT)			
	2010	2011	Inc/Dec	GR (%)
Livestock	**121,733**	**122,859**	**1,126**	**0.92**
Carabao	10,126	9,997	(129)	(1.27)
Cattle	27,307	26,817	(490)	(1.79)
Hog	73,914	75,604	1,690	2.29
Goat	10,386	10,441	55	0.53
Poultry	**94,408**	**95,217**	**809**	**0.86**
Chicken	74,291	75,369	1,078	1.45
Duck	1,858	1,860	2	0.11
Chicken eggs	16,775	16,462	(313)	(1.87)
Duck eggs	1,484	1,526	42	2.83
Total	**216,141**	**218,076**	**1,935**	**0.90**

Source: BAS

FISHERIES

The over-all production in fishery subsector registered a positive growth of 9.19% or 12,641 metric tons from 137,509 metric tons in 2010 (Table 5). The growth was solely contributed by the aquaculture with 18.22% increase from last year's production of 90,987 metric tons. Production in municipal waters, both inland and marine, reduced by 8.0% or 3,406 metric tons from 42,552 metric tons of the previous year. Also, commercial fish catch went down by 13.30% from 3,970 metric tons in 2010 to 3,442 metric tons in 2011. The decline in municipal and commercial waters was attributed by the damages as an outcome of the adverse effect of various typhoons this year.

Table 5. Production (MT) of Fisheries CY 2010-2011, Ilocos Region

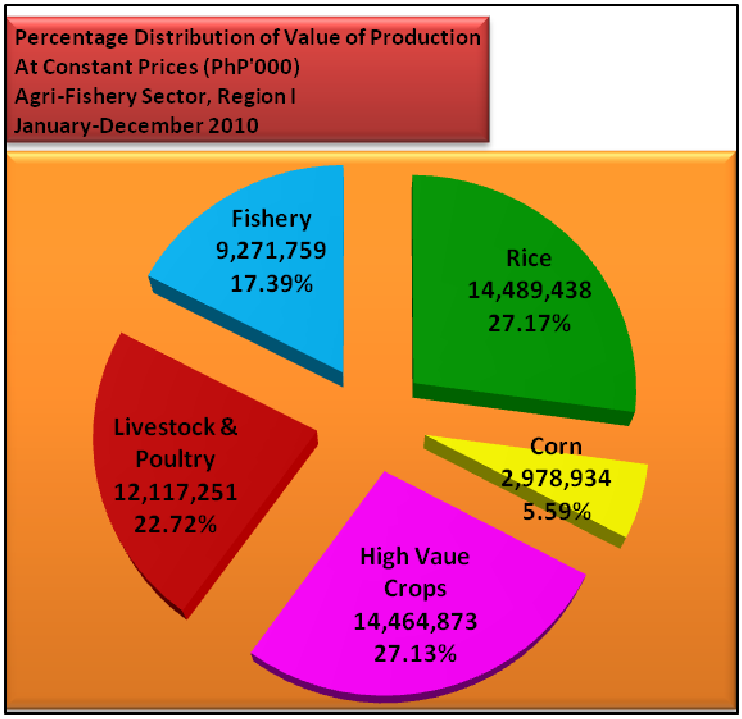
Commodities	Production (MT)			
	2010	2011	Inc/Dec	GR (%)
Commercial	3,970	3,442	(528)	(13.30)
Municipal	42,552	39,146	(3,406)	(8.00)
Marine	37,085	36,246	(839)	(2.26)
Inland	5,467	2,900	(2,567)	(46.95)
Aquaculture	90,987	107,562	16,575	18.22
Total	**137,509**	**150,150**	**12,641**	**9.19**

Source: BAS

B. VALUE OF PRODUCTION

For 2011, the total value of production of agri-fishery sector at constant prices reached PhP53.32 Billion, higher by 2.57% compared to last year's record of PhP51.99 Billion (Table 6). Of this, rice valued at PhP14.49 Billion contributed the largest share of 27.17%, which increased by 2.85% from PhP14.09 Billion of 2010. High value crops ranked as second with 27.13% share valued at PhP 14.46 Billion. Livestock and poultry shared 22.72% or Php12.12 Billion. Fishery, which posted the highest increase by 10.34% from its level in 2010, shared PhP9.27 Billion of 17.39%. The remaining 5.59% share of PhP2.98 Billion was contributed by the corn sub-sector.

At current prices, total output is valued at PhP83.35 Billion, 3.14% higher than the PhP80.814 Billion of 2010. By sub-sector distribution, rice accounted the biggest share at 31.38% of the total value of agri-fishery output. High value crops ranked second contributing 23.88%, followed by fishery with 15.37% and 14.64% for livestock. Poultry and corn shared 8.80% and 5.93%, respectively.



Source: BAS

Positive growths were shown in rice, corn, livestock and fishery sub-sectors this year. Fishery recorded the highest gain by 16.96% from PhP10.95 Billion of 2010 to PhP12.81 Billion of 2011. Corn and rice boosted 12.945 and 8.84%, respectively, from 2010 level of value of output. Livestock also exhibited slight increase by 1.88%. On the other hand, poultry and high value crops went down by 9.08% and 7.03%, respectively.

**Table 6. Value of Production (Million Pesos)
Agri-Fishery Commodities,
CY 2010-2011, Ilocos Region**

Commodity	Value of Production (Million Pesos)							
	At constant price		GR (%)	Share (%) 2011	At current price		GR (%)	Share (%) 2011
	2010	2011			2010	2011		
Rice	14,087,692	14,489,438	2.85	27.17	24,030,112	26,153,900	8.84	31.38
Corn	2,752,858	2,978,934	8.21	5.59	4,373,029	4,938,701	12.94	5.93
HVCC	14,346,387	14,464,873	0.83	27.13	21,411,980	19,907,509	(7.03)	23.88
Livestock	6,953,194	6,662,550	(4.18)	12.49	11,980,511	12,205,371	1.88	14.64
Poultry	5,445,065	5,454,700	0.18	10.23	8,064,126	7,332,190	(9.08)	8.80
Fishery	8,402,744	9,271,759	10.34	17.39	10,954,608	12,812,392	16.96	15.37
Total	51,987,940	53,322,254	2.57	100.00	80,814,365	83,350,062	3.14	100.00

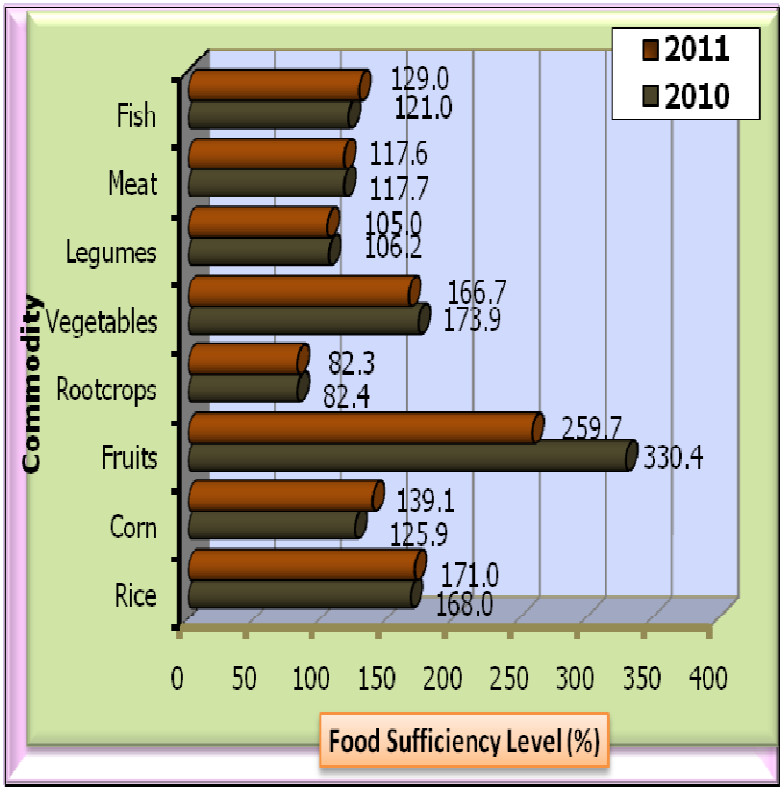
Source: BAS

CONTRIBUTION OF AGRI-FISHERY IN THE REGIONAL ECONOMY

FOOD SUFFICIENCY

Region 1 continued to be sufficient in almost all the basic food commodities for 2011. Palay production of 1.60 million metric tons is more than enough to sustain the requirement of 4.7 million regional population which is estimated at 567,783 metric tons of clean rice. Among the provinces in the region, Ilocos Norte gained the highest sufficiency level at 274.4%, higher by 103.4% than the regional level at 171.0%. Likewise, corn production is more than sufficient to meet the requirement of human and livestock consumption with a sufficiency level of 139.1%. Out of the total demand of 278,767 metric tons for corn, livestock required 88.4% for animal feeds while only11.6% was for human food.

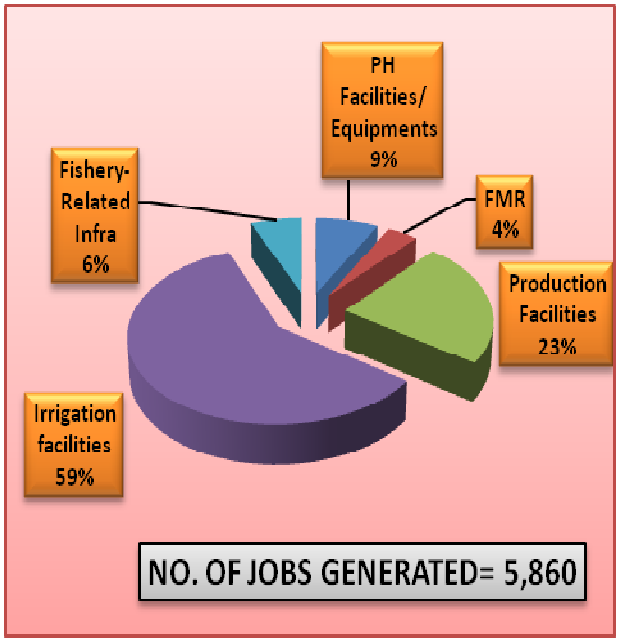
Despite he decrease in the food sufficiency level in high value crops, there was still surplus in the production of fruits, vegetables and legumes with sufficiency levels of 259.7%, 166.7% and 105.0%, respectively. On the other hand, the region is still deficit in rootcrops by 7,561 metric tons.



Meat production has also surplus with sufficiency level of 117.6%. Fishery attained 129.0% sufficiency level, higher by 6.6% compared to last year's level of 121%.

JOBS GENERATION

The agri-fishery sector generated a total of 5,849 jobs for this year. Construction and rehabilitation of irrigation facilities, which include national and communal irrigation systems (NIS/CIS) and small scale irrigation projects (SSIPs), contributed the highest share of 59% or 3,454 jobs generated. Production facilities/equipments such as composting facilities, greenhouses, nurseries and tractors, contributed 23% or 1,372 jobs. Post harvest facilities/equipments such as mechanical flatbed dryers, rice reapers and threshers, etc., generated 448 jobs or 23% share. The remaining 10% share generating 587 jobs was contributed by fishery-related infrastructures and facilities and farm-to-market roads.



ACCOMPLISHMENT REPORTS: BANNER AND REGULAR PROGRAMS

RICE BANNER PROGRAM

The Rice Banner Program in Region I endeavors to sustain self-sufficient level and become one of the top producers and suppliers of quality rice in the country.

The program focused on production and productivity enhancing technologies thru seed production of varieties adapted for climate change, technology demonstrations of high yielding varieties, community-based seed banks (CSBs), and utilization of hybrid and certified inbred seeds.

In order to further boost rice production towards the attainment of rice self sufficiency, various farm equipments and postharvest facilities were distributed and established as part of the DA Rice Mechanization Program (2011-2016). The program also conducted capability building activities for agricultural extension workers and farmers and developed improved technologies under research and development.

Production Support Services

A total of 35 hectares of breeder seed production area of varieties adapted for climate change were established. These breeder seeds include foundation seeds for drought tolerant and early-maturing varieties, and registered seeds for submergence tolerant varieties.

After the onslaught of different typhoons that hit the region, a total of 13,898 bags of hybrid and certified seeds were distributed to affected farmers as rehabilitation program. Bulk of the seeds was distributed to Pangasinan contributing 88.5% or 12,298 bags to the total rehab seeds.

The program spearheaded the establishment of CSBs to promote production of quality seeds and to serve as mandatory storage of seeds managed by farmers/irrigators associations (FA/IA). Registered seeds at 20 kg were distributed to one (1) FA/IA as start-up seeds. There were 3,633 bags of 40 kg distributed, broken down as follows: Pangasinan-2,439 bags, La Union-276 bags, Ilocos Sur -484 bags, and Ilocos Norte-434 bags.

Province	Bags Distributed (Rehab Program)		
	Hybrid	Certified	Total
Pangasinan	138	12,160	12,298
La Union	3	429	432
Ilocos Sur	-	307	307
Ilocos Norte	-	861	861
Total	**141**	**13,757**	**13,898**

Other Infrastructure and Postharvest Development Services

In support to the Rice Mechanization Program for 2011-2016, the DA –RFU I in coordination with the Philippine Center for Post Harvest Development and Mechanization (PhilMech), provided different farm equipments and post harvest facilities to improve quality and reduce post harvest losses of rice grains. There were five (5) units of mechanical flatbed dryers and twelve (12) multi-purpose dying pavements (MPDP) established in the region. Also 29 reapers, 47 threshers and 105 hand tractors were provided to 181 FAs/IAs.

Province	Flatbed Dryer	MPDP	Hand Tractor	Rice Thresher	Rice Reaper
Pangasinan	2	6	52	23	12
La Union	1	2	11	7	5
Ilocos Sur	1	2	11	7	5
Ilocos Norte	1	2	31	10	7
TOTAL	**5**	**12**	**105**	**47**	**29**

In order to facilitate more efficient logistical distribution of agricultural goods and services, a total of 14 kilometers of farm to market roads were constructed with a total project cost of PhP23 Million.

Province	Municipality	No. of FMR	Amount Released (P000)
La Union	Tubao	1	5,000
	Luna	1	3,000
	Naguilian	10	4,500
	Pugo	1	500
Ilocos Sur	Tagudin	1	10,000
TOTAL		**14**	**23,000**

Extension Support, Education and Training Services

The program continued to showcase the validated and viable technologies on rice through establishment of 137 demo farm for modified dry direct seeded rice (MDDS) and 1,054 for hybrid cluster with emphasis on balance fertilization using organic fertilizer and on farm mechanization. Moreover, a 265 hectares for *Sukat Bin-i (Palit Binhi*) cum seed production techno-demo for inbred varieties were also established.

In coordination with Agricultural Training Institute (ATI), the program conducted various trainings for Agriculture Extension Workers (AEWs) such as Training of trainers (TOT) on sustainable agriculture (4 batches), Retooling on pest surveillance (8 batches) , Refresher course on FLE (1 batch), Capability enhancement course on PalayCheck (6 batches), Data based management cum e-learning (3 batches), Introductory course on GIS (5 batches) and Briefing on climate change(1 batch). Additionally, 27 batches of tekno klinik and 56 batches were conducted on PalayCheck Farmers Field School benefiting 1,583 famers.

A total of 11,500 IEC materials on rice production techno guides were produced and distributed by the Regional Agricultural Information Division (RAFID). Almost PhP15.4 Million was provided as incentive allowance to 606 AEWS working under the program.

Trainings	Number of Batches	Number of participants
PalayCheck Farmers Field School	56	1,583
Tekno Klinik	27	2,508
Data-based Management cum e-learning	3	73
Introductory Course on GIS	5	118
Briefing on Climate Change	1	20
TOT on Sustainable Agriculture	4	86
Retooling on Pest Surveillance	8	182
Refresher Course on FLE	1	15
Capability Enhancement Course on PalayCheck for LGU-AEWs	6	222
TOTAL	**111**	**4,807**

Research and Development

In support to the development of viable technologies, the Rice Banner Program through the Research and Development Division, established 10 sites of adaptability trials of promising inbred and hybrid rice varieties for the wet and dry cropping seasons.

During the dry season 2010-2011, NSIC Rc218 posted the highest yield among inbred varieties at 8.29 metric tons per hectare. Other highest yielder inbred varieties were PSB Rc82 and NSIC Rc216 at 7.55 and 7.35 metric tons per hectare, respectively. For hybrid varieties, NSIC Rc210H (M3), NSIC Rc162H (JolliRice) and NSIC Rc200H (Arize TEJ 065) registered the highest yield of 8.09, 7.83 and 7.67, respectively.

Of the seven (7) inbred varieties tested during the wet season, NSIC Rc216 registered the highest yield of 11.00 metric tons per hectare. Other top yielding varieties were NSIC Rc 226 (9.08 mt/ha), NSIC Rc 222 (8.98 mt/ha) and PSB Rc 82 (8.68 mt/ha).

For the hybrid varieties, Rizalina 342 and Arize H64 were noted to be the highest yielders with 13.19 and 12.14 tons per hectare, respectively. The yields of the other varieties ranged from 4.31-10.71 metric tons per hectare. Low yield of other varieties were attributed to the occurrence BLB, white heads caused by stem borer, and the damages caused by typhoons during heading and flowering stages of the rice crops.

Likewise, the screening and commercialization of inbred rice varieties tolerant to abiotic stresses (drought, submerged, saline conditions) were conducted for better adaptation to climate change. Result of the trial showed that NSIC Rc192 and Rc288 were identified as the best performing drought-tolerant varieties in Pangasinan, while PR 23813-1-1-1, Rc284 and Rc286 are the best performing line and varieties for drought conditions in Ilocos Sur. The varieties performed best in saline prone areas are Rc182, Rc106 and Rc88 in Ilocos Sur. Likewise, Rc194 performed best in submerged conditions.

Adaptability Trials of Promising Inbred and Hybrid Rice Varieties in Region 1

A. Dry Season(DS) 2010-2011

Province	Inbred Variety	Inbred Yield (t/ha)	Hybrid Variety	Hybrid Yield (t/ha)
Pangasinan	PSB Rc 82	7.55	NSIC Rc 162 H (JolliRice: M8)	6.48
	NSIC Rc 160	6.02	NSIC Rc 200 H (Arize TEJ 065)	7.41
	NSIC Rc 158	6.71	Rizalina 333	Phaseout
	NSIC Rc 172	5.1	Rizalina 342	6.69
	NSIC Rc 216	7.08	Masuerte	6.94
	NSIC Rc 214	6.55	NSIC Rc 166H (Malakas: M10)	6.76
	NSIC Rc 218	6.68	TH 82	6.78
	NSIC Rc 212	6.66	PSB Rc 72H (Mestizo 1)	6.7
			PhB 71	7.23
La Union	PSB Rc 82	4.52	NSIC Rc 162 H (JolliRice: M8)	5.24
	NSIC Rc 160	4.16	NSIC Rc 166 H (Malakas: M10)	5.85
	NSIC Rc 158	6.04	NSIC Rc 200 H (Arize TEJ 065: M18)	5.76
	NSIC Rc 172	5.69	NSIC Rc 210 H (PhB 71:M23)	5.22
	NSIC Rc 216	7.35	Rizalina 333	Phaseout
	NSIC Rc 214	4.71	Rizalina 342	5.49
	NSIC Rc 218	7.44	NSIC Rc 126H (Masuerte: M5)	6.01
	NSIC Rc 212	4.8	TH 82	5.92
			PSB Rc 72H (Mestizo 1)	5.24
Ilocos Sur	PSB Rc 82	6.47	NSIC Rc 162 H (JolliRice: M8)	6.91
	NSIC Rc 160	6.19	NSIC Rc 200 H (Arize TEJ 065)	6.81
	NSIC Rc 158	6.19	Rizalina 333	Phaseout
	NSIC Rc 172	4.08	Rizalina 342	5.91
	NSIC Rc 216	6.01	Masuerte	6.2
	NSIC Rc 214	5.72	NSIC Rc 166H (Malakas: M10)	6.33
	NSIC Rc 218	5.85	TH 82	7.03
	NSIC Rc 212	6.40	PSB Rc 72H (Mestizo 1)	6.52
			PhB 71	6.84
Ilocos Norte	PSB Rc 82	5.26	NSIC Rc 162 H (JolliRice: M8)	7.83
	NSIC Rc 160	6.66	NSIC Rc 166 H (Malakas: M10)	6.91
	NSIC Rc 158	5.74	NSIC Rc 200 H (Arize TEJ 065: M18	7.67
	NSIC Rc 172	4.56	NSIC Rc 210 H (PhB 71:M23)	8.09
	NSIC Rc 216	7.29	Rizalina 333	Phaseout
	NSIC Rc 214	6.28	Rizalina 342	6.76
	NSIC Rc 218	8.29	Masuerte	7.24
	NSIC Rc 212	6.87	TH 82	6.84
			PSB Rc 72H (Mestizo 1)	7.38

B. Wet Season(DS) 2011

Province	Inbred Variety	Inbred Yield (kg/ha)	Hybrid Variety	Hybrid Yield (t/ha)
Pangasinan	NSIC Rc 214	8.28	NK6401	10.71
	NSIC Rc 216	11.00	Rizalina 314	10.35
	NSIC Rc 218	7.72	ARIZE	12.14
	NSIC Rc 222	8.98	PSB Rc 72H (M1)	8.49
	NSIC Rc 224	8.59	SL-11H	9.02
	NSIC Rc 226	9.06	SL-9H	8.24
	PSB Rc82	8.68	Rizalina 342	13.19
La Union	NSIC Rc 214	6.34	NK6401	5.63
	NSIC Rc 216	6.88	Rizalina 314	4.91
	NSIC Rc 218	6.72	ARIZE	5.03
	NSIC Rc 222	6.40	PSB Rc 72H (M1)	4.31
	NSIC Rc 224	6.52	SL-11H	5.87
	NSIC Rc 226	4.85	SL-9H	5.74
	PSB Rc82	6.92	Rizalina 342	5.60
Ilocos Sur	NSIC Rc 214	6.67	NK6401	6.66
	NSIC Rc 216	6.42	Rizalina 314	5.47
	NSIC Rc 218	6.28	ARIZE	6.49
	NSIC Rc 222	7.37	PSB Rc 72H (M1)	7.83
	NSIC Rc 224	6.26	SL-11H	7.31
	NSIC Rc 226	7.38	SL-9H	6.20
	PSB Rc82	7.14	Rizalina 342	6.13
Ilocos Norte	NSIC Rc 214	5.94	NK6401	5.03
	NSIC Rc 216	6.47	Rizalina 314	6.01
	NSIC Rc 218	7.8	ARIZE	8.17
	NSIC Rc 222	8.42	PSB Rc 72H (M1)	5.43
	NSIC Rc 224	6.92	SL-11H	6.09
	NSIC Rc 226	9.08	SL-9H	6.97
	PSB Rc82	5.93	Rizalina 342	5.73

Regulatory Services

To ensure palay seed quality, the National Seed Quality Control System (NSQCS) analyzed, certified and tagged a total of 509,224 seed samples of inbred and hybrid rice seeds.

CORN BANNER PROGRAM

The Corn Banner Program in Region 1 aimed to sustain its level as the major producer/supplier of quality corn for food and feed and the highest yielder in the country.

This year, yield per hectare in Region 1 at 5.03 metric tons is higher by 2.29 metric tons than the national level of 2.74 metric tons. This significant level of yield was attributed to the utilization of hybrid and OPV seeds, establishment of techno demos, distribution of biological control agents and farm equipments, and conduct of trainings. The program also supported the cassava production in the region thru establishment of techno demo for cassava varietal trial.

Production Support Services

The Corn Banner Program in coordination with the Regional Crop Protection Center (RCPC) produced and distributed a total of 20,000 trichogramma cards and 2.4 million of earwigs as environment-friendly and cost reducing pest control technology, benefiting 500 individual corn farmers in the cluster areas and supporting Farmers Field School (FFS) trainings and R & D projects covering 415 hectares.

A total of 150 bags of hybrid and 275 bags of OPV white corn seeds were distributed as rehabilitation program to 425 Typhoon Mina affected farmers. In addition, 1,940 bags of hybrid corn were awarded to corn farmers in partnership with the ABONO Partylist, National Agribusiness Corporation (NABCOR)-Rosales and LGUs.

In order to give appropriate fertilizer recommendation and to update the fertility map in the region, the Regional Soils Laboratory in collaboration with the Local Government Unit (LGU) counterparts conducted laboratory analysis of 998 soil samples representing 14,970 hectares of corn in 37 corn cluster areas.

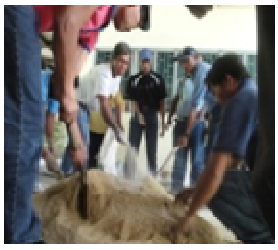
The program also awarded three (3) units of 90 hp-4WD farm tractors under counterparting scheme benefiting one farmer cooperative and two (2) LGUS serving at least 600 hectares of corn field.

Extension Support, Education and Training Services

There were 21 techno demo sites established for Site -Specific Nutrient Management (SSNM) designed to verify or validate the nutrient expert for hybrid maize before the multiplication of Fertilizer Guide for Maize. The project is expected to be completed on April 2012.

A total of 26 batches of FFS for corn were conducted with 650 participants. Likewise, six (6) batches of trainings on Prevention and control of aflatoxin contamination and Good Agricultural Practices (GAP) for corn production were conducted benefiting 205 farmers. Four (4) entrepreneurial trainings on corn husk utilization/processing were also conducted which were participated by 120 farmers, women and youths. In addition, four (4) trainings were conducted on Corn-Livestock integrated farming system cum feed mixing and utilization of corn by-products with 140 farmer-participants. Also, one (1) briefing-workshop was conducted on the promotion of white corn for health which was participated by 70 farmer-leaders and LGU counterparts.

The RAFID also produced 10,000 pieces of IEC materials featuring Agri-Pinoy Corn Program and Project Guidelines and Implementing Schemes, and White Corn as



HIGH VALUE CROPS DEVELOPMENT PROGRAM

The High Value Crops Development Program seeks to increase income of farmers and aims to make Region 1 as the key producer of affordable, safe and healthy high value crops in the country.

The program focused on the major commodity priorities which include mango, lowland vegetables (pinakbet vegetables-bitter gourd, tomato and egg-plant), spices (onion and garlic) and banana-saba. Specific interventions include the following: distribution of high quality seeds and planting materials for vegetable, spices and staple food crops (banana-saba); provision/establishment of irrigation, post harvest and farm equipments/facilities; establishment and rehabilitation of production facilities; market development services; and extension support services.

Production Support Services

A total of 500 kilograms of various hybrid seeds such as eggplant, tomato, bitter gourd, squash, gourd, pole sitao, watermelon and sweet pepper were procured and now positioned in the Provincial Agriculture Offices for distribution to farmer-beneficiaries. This aims to expand vegetable production areas in the region to ensure continuous supply of high quality, affordable and safe vegetables in the market. Allocation by province is as follows:

Province	Seeds Allocation (kgs)
Pangasinan	**44**
Ilocos Sur	**52**
Ilocos Norte	**59**
Total -	**155**

For the spices, a total of 155 kilograms of high quality onion seeds were procured and distributed. For this year, there were no import permits issued for onion. Also, a total of 7,400 plantlets of banana-saba were procured and distributed to Santol and San Gabriel, La Union. Banana-saba is considered as an alternative staple food crop.

In support to *Gulayan sa Paaralan* Program, 396 schools were provided with OPV vegetable seeds, organic fertilizers and seedling trays for vegetable production. Training for the vegetable production technologies from sowing/planting to harvesting was also conducted.

Province	*Gulayan sa Paaralan* No. of School-Beneficiaries		
	Primary	Secondary	TOTAL
Pangasinan	69	23	92
La Union	69	23	92
Ilocos Sur	69	23	92
Ilocos Norte	90	30	120
Total -	**297**	**99**	**396**

On the other hand, two (2) units of onion hanger storage were provided to Badoc and Vintar, Ilocos Norte to reduce post harvest losses and maintain quality of onion produce. One (1) tissue culture laboratory was rehabilitated at Ilocos Sur Polytechnic State College, Sta. Maria, Ilocos Sur. Likewise, 132 units of pH meter were procured and distributed to farmers for the assessment of their soil pH.

Irrigation Development Services

There were a total of 46,900 meters of high density polyethylene pipe system (DPPS) distributed to vegetable farmers in the region. Of this, 40% or 18,760 meters was allocated for the Pangasinan having the largest area among provinces for vegetable production. Each of the three provinces was provided with 9,380 meters of DPPS.

Province	Length (meters) of DPPS
Pangasinan	18,760
La Union	9,380
Ilocos Sur	9,380
Ilocos Norte	9,380
Total -	**46,900**

Extension Support, Education and Training Ser-

The program established one (1) convergence techno demo where various seed companies such as East West Seed Company, Allied Botanical Corporation, RAMGO International Corporation and Seminis-Monsanto Seed Company participated in partnership with LGU-Cabugao, Ilocos Sur. The DA-RFU I provided seeds, other inputs as well as technical assistance were given by the seed companies while labor was the counterpart of LGU-Cabugao. Field day of the demo was conducted last June 16,2011 with 100 farmer-participants.

There were also eight (8) techno demos established and maintained by our developed Magsasaka Siyentista. The techno demos include different production technologies of various commodities.

The program also conducted twelve (12) batches of *Gulayan sa Paaralan* training, three (3) batches for each province benefiting 200 students/pupils. A regional vegetable symposium was also conducted with 175 participants to apprise the status and directions of the vegetable industry in Region I, tackle issues and problems from production to marketing aspects, and give updates on pest and diseases management and production of organic vegetables.

In addition, the Garlic Commodity Road Map in Region I was crafted in coordination with the garlic growers of Ilocos Norte and Ilocos Sur.

LIVESTOCK BANNER PROGRAM

The Livestock Banner Program endeavors Ilocos Region as the major producer/supplier of safe, quality and wholesome meat and meat products.

To achieve this goal, the program focused major interventions such as the maintenance and production of quality breeder stocks and forage planting materials, genetic improvement thru Unified Artificial Insemination Program (UAIP), animal health services, access credit thru Male Breeder Loan Program (MBLP), conduct of Farmers Livestock School (FLS), intensification of information dissemination and regulatory services.

Production Support Services

The Livestock Banner Program thru the Ilocos Integrated Agricultural Research Center (ILIARC) produced and maintained quality breeder stocks of cattle, swine and goat to upgrade the present stocks and produce quality offspring (thru artificial insemination) to be loaned to private raisers and to farmer-partners of R & D projects with livestock components. Fifteen (15) American Brahman cattles with 8 offsprings and one (1) Murrah Buffalo carabao with one (1) offspring were mantained at ILIARC Sattelite Station (ISS) 1, Dingras, Ilocos Norte. For swine, four (4) Large White breeders producing a total of 82 offspring were maintained at ISS 2, Sta. Barbara, Pangasinan. Of this, 40 piglets were loaned out and 23 were sold as breeders benefiting 13 individual raisers and two (2) farmer cooperatives. For goat, a total of six (6) heads buck and 57 heads doe (Anglo-nubian, Boer, Alpine, Saanen, Toggenburg, upgrades) were maintained at ISS1, ADP, ISS3 and ISS4. There were 41 does kidded producing 49 kids (25 buck and 21 doe). A nucleus farm for sheep with 11 heads St. Croix and Kathadin ewes and three (3) rams is maintained at ISS4, Sual, Pangasinan where 14 offspring were produced.

For Forage and Pasture Development and Maintenance Project, a total of 6.51 hectares in the stations was planted with forage grasses such as red napier, florida napier, guatemala grass, setaria, guinea, star grass, paragrass, korinevea and ruzi, and a total of 1.72 hectares was planted with legumes like renzonii, flemingia, sesbania, trichantera, ipil-ipil, kakawate, stylo, pintoi, peanit and centrosema. A total of 204.5 tons herbage was produced for the animal stocks in the station. Likewise, a total of 178,700 cuttings/ rootstocks were produced from which 177,000 cutting/rootstocks were distributed, while 16.8 kilograms of legume seeds were produced, 6.75 kilograms of which were distributed. There were 300 farmer-beneficiaries/recipients of these planting materials, most of them were participants of Farmer Livestock School (FLS), and CPAR and RED cooperators.

Under the Unified National Artificial Insemination Program (UNAIP), a total of 4,830 frozen semen of genetically superior cattle, buffalo and goat were provided producing 1,057 calf drop.

Provinces	A.I Services	Calf Drop	Drugs and Biologics (Doses)
Pangasinan	1,668	272	84,100
La Union	890	118	31,358
Ilocos Sur	453	122	52,563
Ilocos Norte	2,917	563	42,050
TOTAL	**5,928**	**1,075**	**210,071**

Under Animal Health Services, a total of 210,071 doses of drugs and biologics were distributed for vaccination against blackleg, hemorrhagic septicemia and hog cholera among livestock; rabies for canine; and fowl pox, new castle disease for poultry.

To support the rural-based organizations in the region, the program provided livestock and poultry projects to farmer cooperatives/association under the DA existing loan scheme. For the province of Ilocos Norte, two (2) heads breeder buck, two (2) modules of swine, one (1) module of goat, one (1) module of sheep and 120 swine were loaned out. Likewise, two breeder bucks,4 heads of weanling boar and 8 heads of weanling gilt were loaned out in La Union, while 5 heads buck were for locos Sur. Also, one (1) module of goat was loaned out to Basista, Pangasinan as commitment of the DA Secretary. In addition, 4 heads of boar and 8 heads of gilt were loaned out to DMMSU Piggery Extension Research Farm (DPERF), Bacnotan, La Union.

Under Genetic Resource Improvement Program for Beef Cattle and Small Ruminant, the program distributed 78 heads of imported sheep and goat to pre-evaluated recipients in coordination with the LGUs.

There were also 45 imported and 119 local dairy goats distributed in support to the Dairy Goat Development Program. The project aims to enhance and sustain the dairy industry through government infusion of dairy goat animals in partnership with the private sector and to address the gaps of the looming poverty incidence in the countryside making available fresh milk as one of the alternative means to address hunger and nutrition problem.

Extension Support, Education and Training Services

The program conducted technical updates of LGU Implementers on Emerging and Re-Emerging Diseases and a Collaborative Training for Village-based and LGU Service Providers on Artificial Insemination on Small Ruminant.

Also, 10 FLS focused on integrated goat, swine, cattle and poultry management were conducted benefiting 352 livestock raisers.

The Philippine Animal Health Information System (PhilAHIS) continued its operation in the 4 provinces and downloaded to 24 municipalities serving 148,653 farmers. The PhilAHIS enhances the animal disease information management capability and provides standard, timely and quality information through the use of automated data.

There were also 2,000 IEC materials on livestock and poultry production and prevailing diseases disseminated to farmers and walk-in clients.

Regulatory Services

Under the Animal Quarantine Services, 965 veterinary clearances were issued to foreign and local vessels and aircrafts. There were 167 heads of imported dairy cattle and 18 heads of Anglo-Nubian goats from Australia, and 4 heads of imported goats from California, USA quarantined at Sison, Urbiztondo and Mangatarem, Pangasinan. One multi-commodity and 17 LGU initiative domestic livestock quarantine checkpoints were supported and maintained which issued 1,560 local permits and clearances, and recorded 6,000 shipping documents.

1. Cargill Philippines, Inc., Villasis, Pangasinan
2. North Luzon Feeds Corporation, Binalonan, Pangasinan
3. Pangasinan Purefeeds Feedmill, Inc., Binalonan, Pangasinan
4. San Miguel Foods, Inc., Binalonan, Pangasinan
5. BAMCOR B-Meg Toll Manufacturer, San Juan, La Union
6. Universal Feedmix Center, Agoo, La Union
7. Venvi Feedmill, Inc., San Nicolas, Pangasinan

In support to Animal Welfare Services (RA 8485), five (5) veterinary clinics and four (4) petshops were inspected, evaluated and registered. Four (4) commercial farms were also accredited and registered.

Likewise, 686 feed establishments/outlets were issued with License to Operate (LTO). Among them were seven (7) feed manufacturing plants, namely:

Also, a total of 418 Veterinary Drug and Product (VDAP) outlets and 428 livestock and poultry transport carriers were registered this year.

DEVELOPMENT OF THE CROPS SECTOR

The Soils Laboratory Services analyzed 1,054 soil samples from R & D projects of the DA and the State, universities and colleges (SUCs) in the region. Also 643 samples of fertilizer and compost as well as plant tissue were tested for nitrogen, phosphorus and potassium (NPK) analysis. Only 15 water samples were received during the year.

Under Research and Development, a total of 278 parent trees of mango foundation scion grove in the 5 research stations were already certified parent trees: Lamao in ISS1, Guimaras Experimental Station (GES) 73, 77, 84 and Lamao in ISS2, GES 77, 84 and Lamao in ISS 3, GES 77, 85, 89 in ILIARC, and GES strains in ADP. This year, there were 9,500 bud sticks disposed to private nursery operators and station nurseries.

All the research stations established technology demonstrations as follows:

Station	Technology	Remarks
ISS 1, Dingras, Ilocos Norte	Integrated rice-fish (tilapia)-vegetables	Field conducted with the following productivity: 7 tons/ha of rice, 91.5 kg of tilapia per 200 sq.m., and 18 kg cowpea fresh pods
ISS 2, Batac City, Ilocos Norte	Use of indigo as green manure for rice	On-going (seeding rate is 20 kg indigo seeds/ha)
ADP, San Ildefonso, Ilocos Sur	Backyard vegetable + tilapia	On-going (vegetable planted include okra, eggplant, radish, squash, upo, snake gourd, and pole sitao)
ISS 3, Sta. Barbara, Pangasinan	Hybrid Rice-Sweet Corn Production	Rice is still at maturity stage
ISS 4, Sual, Pangasinan	Ube Production	On-going (varieties: Kinampay, Mindoro, Baluktot)
ILIARC	Backyard organic vegetable production (use of vermincompost and insect attractant)	Harvested 280 kilograms of ampalaya, patola and cucumber

There were also 7,560 kilograms of vermicast produced in all research stations. Likewise, a total of 1,412 kilograms of honeydew melon and 601 kilograms of tomatoes were produced the greenhouses. Under Mass Production and Utilization of Green Muscardine Fungus (*Metarhizium anisoplaie*) Project, a total of 5,200 bags were produced and distributed for the control of major insect pests of crops with 139 beneficiaries covering 104 hectares of vegetable areas in the region.

In compliance with the sanitary and phytosanitary (SPS) requirements of plants and plant products, the Plant Quarantine Services issued 1,572 certificates covering 127,415 cartoons/bales/boxes of flue-cured Virginia and burley tobacco, 901 small parcel/packs of medicinal plant parts, cigarettes, gravel and sand, and corn seeds totalling 101,985 kilograms. A total of 200 import permits were issued for bulbs, rhizomes and seeds. For domestic quarantine, 65 permits were issued covering 95,434 metric tons of upland and lowland vegetables, 60,137 metric tons of pinakbet vegetables and 91,714 pieces of assorted planting materials. Likewise, two (2) domestic permits were issued for queenbees including escortbees transported to Antipolo City.

DEVELOPMENT OF LIVESTOCK SECTOR

The Regional Diagnostic Laboratory Services conducted confirmatory tests for the following:

Examination/Analysis	# of samples analyzed/ examined
❖Rabies	420
❖Necropsy	27
❖Fecalysis	1750
❖ Blood Parasite Exam	85
❖ Bacterial Isolation and Identification	13
❖ Anti-microbial Susceptibility Test (AST)	13
❖Brucellosis (RPT)	84

The region also maintained a feed laboratory, where 93 feed samples were collected and analyzed for the percentage content of crude protein, crude fat, crude fiber, ash and moisture content.

Regular price monitoring was likewise conducted for livestock and poultry products like pork, beef, chicken meat and eggs.

To hasten the transfer of matured technologies to farmers for better implementation of Livestock R & D projects in the region, two (2) trainings were conducted– one on feed formulation and another on goat enterprise development.

Three (3) forage nurseries were also established to cater the requirements for planting materials of CPAR and RED farmer-partners and other ruminant raisers in the region. Forage legumes such as *renzoni, flemingia, trichantera, sesbania, desmanthus, indigo, katuray, kakawate, and ipi-ipil* were propagated in these nurseries.

GENERAL ADMINISTRATION AND SUPPORT SERVICES (GASS)

Under the National Information Network (NIN), one (1) static and one (1) dynamic websites were maintained with 5 sections. The websites are being updated dynamically through on-line submission. Four (4) local area network (LAN) were also maintained and operationalized connecting 50 workstations and two (2) WiFi networks.

On budget preparation, six (6) budget proposals under Regular and Banner Programs were prepared and submitted to the Department of Budget and Management (DBM) and DA-Central Office. There were 13 different financial reports prepared, consolidated and submitted. Forty (48) bank and treasury reconciliation reports for Fund 101, trusts funds and accounts payable were also prepared and submitted.

As to administrative work, the DA-RFU I continued to deliver services in terms of benefits administration. This is now the second year that salaries and allowances of personnel are drawn from the ATM payroll facilities of the Land Bank of the Philippines. Devolved personnel included were those served in terms of their statement of earned and used leave credits earned in the DA-RFU before they were devolved to the LGUs by virtue of RA 7160.

SUPPORT TO OPERATIONS (STO)

The DA-RFU I bagged again the Most Outstanding Agency Monitor in 2011! This is in support to the monitoring and evaluation activities under the Regional Project Monitoring and Evaluation System (RPMES) of the Regional Development Council (RDC) thru the National Economic and Development Authority (NEDA). A total of 43 programs and projects were enrolled on this system under the Regional Development Agenda (RDA), Millennium Development Goals (MDG), Regional Action Agenda on Climate Change and Rehabilitation Programs for Typhoon Mina. Likewise, the Department garnered 3rd place for the Best Project Implementer for the Establishment of Mechanical Flatbed Dryers in Region I.

The Planning, Monitoring and Evaluation Division (PMED) prepared and submitted a total of 20 plans and budget proposal and 80 accomplishment reports to DA-Central Office, House of Representatives and Senate, NEDA and other line agencies.

The PMED also conducted monitoring and evaluation of completed and on-going agricultural infrastructure programs/projects like irrigation, post harvest facilities and other infrastructures implemented in Region I.

As Secretariat, the PMED facilitated the following regular meetings/assessments/workshops:

- Quarterly Meeting of Provincial/City/Municipal Agriculturists and Veterinarians
- Quarterly Meeting of Regional Management Council (DA and its attached agencies and bureaus)
- Quarterly Regional Management Staff Meeting of DA-RFU I
- Agribusiness Sector Committee Meeting of the RDC
- Special visits of DA Secretary
- Semestral and Annual Assessment and Planning Workshops
- Updating of AFMA 2011-2017

TRUST-FUNDED PROGRAMS/PROJECTS

A. BUREAU OF AGRICULTURAL RESEARCH (BAR)-FUNDED PROJECTS

Institutional Development Support for the Technology Showcasing Project of ILIARC

The techno-showcasing project at ILIARC, Bacnotan, La Union aims to emphasize the most practical, affordable, cost-effective technologies tested and found effective in the region.

The technology components to be installed and arranged spatially inside the exhibition room includes (1) kiosks for rice and corn production; (2) internal parasites of small and large animals; (3) wall display for vanishing indigenous crops of region 1; (4) ILIARC vision/mission statements and history; (5) topographic map and other socio-economic statistics; (6) dioramas of the agro-eco farming system in region 1; and (7) terrarium of the dynamic interaction of insect pests and their natural enemies. These exhibits will be packaged in appropriate media complete with gadgets and electrical fixtures.

The technology showcasing will be named, *Dap-ayan ti Sirib* (Knowledge Center for Agricultural Technology in Region 1).

The exhibition room is already renovated and installed with two hanging air-conditioners. Major audio visual equipment such as 32" LCD television, digital SLR camera, video camcorder, desktop computer, overhead projector, laser printer and photocopier were already purchased.

This year, the following instructional modules were made and ready for installation:

Items	Type	Description of Activity/Exhibit
Corn Multimedia Exhibit (back to back with the Rice kiosk)	Kiosk	An exhibit about corn products and how best to grow them. A monitor showcases videos and graphics about corn
Rice Multimedia (back to back with the Corn kiosk)	Kiosk	Rice and rice hybrids will be showcased in this kiosks exhibit. A monitor showcases videos and graphics about maximizing rice productivity
Mango Multimedia (back to back with the Garlic kiosk)	Kiosk	The mango tree and mango products will be showcased in this exhibit. A monitor showcases videos and graphics about mango products
Garlic Multimedia (back to back with the Mango kiosk)	Kiosk	The garlic and garlic products will be showcased in this exhibit. A monitor showcases videos and graphics about garlic products
Animal Parasites Exhibit	Wall	Figures of typical farm animals such as a cow, a goat, and a chicken are shown in the exhibit. Info about the importance of keeping parasites in check to grow healthy and productive animals will be shown. Peeking into holes strategically located on the figures, the visitor will see how parasites live inside the animals using graphic animations
Region 1 Agricultural Products Showcase Exhibit	Wall	This is the centrepiece exhibit, setting the tone for the whole museum. This wall exhibit will showcase a color-coded map of the whole Region1, showing the productivity of municipalities and their particular products. It will show in a broad sweep the agricultural products of Region 1.
Goat Breeding Exhibit	Wall	Visitors get to experience how to mix goat breeds to obtain hybrids with desirable characteristics. Picture representations of several goat breeds act as switches. A monitor shows what type of hybrid one can get.

Garlic Technology Commercialization in Region I (Phase II)

The project aims to enhance and sustain the garlic industry through improved package of production and processing technologies and implementation of Good Agricultural Practices (GAP) and to establish market linkage and networking for garlic and garlic products.

The project assisted four (4) associations namely: the Pasuquin Farmers Garlic/ Onion Growers; Vintar Garlic Growers, MCM Garlic Growers and San Nicolas Bawang Associations thru provision of inputs in the form of biofertilizer (Vital N) and GA 3 to 584 farmer-partners covering 256 hectares.

On processing, the project came up with five (5) commerciable garlic products with proximate analysis. These are garlic pickles, garlic-enriched "miki" noodles, polvoron, chips and flakes. Market outlet for these products is the San Nicolas Multi-Purpose Coop and selected local stores. The garlic pickle was awarded as a Novel Product during the 2011 Technology Forum and Product Expedition organized by the DA-BAR.

IPM-FFS and retooling of farmers on updates on garlic production was conducted with 108 and 120 participants respectively.

Establishment and Promotion of Good Agricultural Practices (GAP) for Mango in Major Production Area in Luzon

This project was implemented by DA-RFU 1-ILIARC in cooperation with DA RFU 3-CLIARC with the over-all goal to provide fresh and safe mangoes for consumers. It focuses on the reduction of risks from pathogens, heavy metals, and pesticide contamination.

The project was established in Bgy. Bangantalinga, Iba, Zambales, Bgy. Barit, Laoag City and Bgy. Resurreccion, Umingan, Pangasinan (additional site). The Code of Good Agricultural Practice (GAP) for Mango Farming was implemented pertaining to farm structure, environment and maintenance, farming practices and farm management practices. The farms in all the project sites have undergone the tedious process of inspection and audit by the national inspection committee. Initial results showed high level of compliance to the Code of GAP but mango fruits upon harvest will be analyzed for pesticide residue to assure the public that the products are of good quality and safe for human consumption.

Technology Promotion and Commercialization of Multiplier Onion (Shallot) in Region I

The project is a DA-BAR funded that commenced in April 2010 and still ongoing in Vintar, Ilocos Norte and San Juan, Ilocos Sur. It aims to promote an appropriate, productive, economical, environment-friendly and acceptable shallot production technology and ultimately works towards its commercialization in Region I. An accelerated dissemination of the packaged shallot production technology, and processed product development for shallot to add value to the crop when prices affect economic viability are the major concerns of the project.

The following are the major accomplishments for the calendar year 2011:

Technical Feasibility

- For the 1st season of shallot planting, and under the specific growing conditions, the technology combination that yielded highest shallot yield (11.54 tons) was TC 2 implemented in Saoang, San Juan, I Sur (Bio-organic fertilizer + Bio-fungicide + Bio-fungicide fruit extracts + Bio control agent for insects + Bio-insecticide + High Frequency Pest Trap Lamp +Liquid microbial organic fertilizer)
- The same high productivity for TC 2 was also shown during the second season of shallot production in Sabangan, San Juan, Ilocos Sur.
- The TC 2 has the potential to be demonstrated in all project sites for the 2nd year implementation of technology promotion
- All three sites except one site (Parparoroc, Vintar, IN) exhibited higher shallot yield
- The use of the fruit extract bio-fungicide gave a highly significant yield in barangay Sabangan to as high as 20 tons/hectare or 110.53% yield difference with comparative farmers

Economic Viability

- Farmer partners in Brgy. Sabangan incurred lower costs of production (Php 161,908) than farmers-partners from Saoang (Php212,863) and even when compared with comparative farmers in both sites.

Profitability

- In San Juan, Ilocos Sur farmer partners gained a higher net farm income, and higher rate of return above total expenses compared with the comparative farmers.
- In Sabangan, the minimum yield required to cover all costs at the price per kilogram of shallot was 6,109.73 kgs/ha. and the minimum price per unit was Php21.18 required to cover all costs at the yield obtained.
- In Saoang, farmers have to attain a higher break-even yield of 8,057.89 kgs/ha at a break-even price of Php19.03/kg shallot. It is still cheaper to produce a kilo of shallot using technology combination 2 compared to comparative farmers' practice.
- For second cropping season, TC2 also exhibited high profitability in Sabangan but not in but not in Saoang due to the high cost of irrigation expenses.
- In Vintar, Ilocos Norte, the TC 3 at Parparoroc was unproductive and unprofitable when compared with the farmers' practice.
- Percent recovery when processing a kilo of shallot into chips and powder, and pickles are 15% and 77%, respectively.

- When the price per kg of shallot is Php20 and below, it is profitable to process into dried chips (54.2%), shallot powder (44.4%), and shallot pickles (81.7%). The most profitable investment was on shallot pickles because it has high percent recovery of raw materials, lower material investments, and is acceptable as a gourmet product. Product development for shallot is continuing.
- Pesticide residue for carbamates and pyrethroids to control sucking pests was present in the samples but there was no organophosphorous which could be attributed to the technology interventions against lepidopterous pests.

Site-Specific Nutrient Management (SSNM) for Maize in Pangasinan

Site-specific nutrient management (SSNM) provides an approach for 'feeding' crops with nutrients as and when needed. Initial results from a series of researcher-managed on-farm and on-station experiments revealed that with good crop management, site specific nutrient management (SSNM) significantly increased yield by an average 2 t/ha compared with the farmers' fertilizer practice (FFP).

The project was conducted in key maize growing areas with significant corn production in Pangasinan during four corn seasons for the on-farm trial (OFT) and one corn season for the farmer participatory evaluation (FPE) from October 2008 until August 2011.

Results showed that in corn production, the most limiting nutrient is nitrogen while phosphorus and potassium are still sufficient based on the result of soil analysis and further confirmed by the indigenous nutrient supply and yield responses to fertilizer N, P, and K during the conduct of the on-farm trial.

The derived fertilizer recommendation rate of **180-40-50** kg N,P_2O_5,K_2O/ha for the municipality of **Sto. Tomas and Alcala** has attained the target yield of 10 t/ha. For a lower yield of 8 t/ha, the recommended rate is **150-28-28** kg N,P_2O_5,K_2O /ha. In the municipality of **Bayambang**, the refined SSNM rate generated by the Nutrient Expert is **150-28-28** kg N,P_2O_5,K_2O/ha for a target yield of **7-8 t/ha** and **170-43-36** kg N,P_2O_5,K_2O/ha for a higher yield of **9-10 t/ha**.

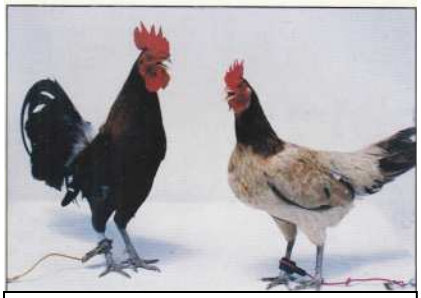
Comparative Performance and Community-based Production of Native Chicken in Luzon-Region I Component-Bolinao Strain

A zonal research project led by Region 4B, it aims to improve the production and reproduction of native chickens in Luzon through identification, intensive production, management, practical breeding and nutrition.

The study was conducted at ISS-3, Sta. Barbara, Pangasinan and performance evaluation of the Bolinao strains were being undertaken.

Results showed that average egg weight is 36.82 grams and hatchability of eggs is at 66.76 %. Average weight of stocks on six (6) stages is monitored, from day old to first egg drop. At day old, average weight is 26.40 grams and reaches an average weekly weight of 98.1 grams.

Native chicken production as well as participation to related activities regarding management is dominated by females at 91.11% while 8.89% for males. With regards to status of farm ownership, 76.47% of the respondents are tenants and 23.53% are land owners. It was observed that more than 50% of the respondents belong to the medium size family. Most farmer-partners secure loans (69.57%) while the remaining 31.43% utilized their savings to procure inputs and in the payment of hired labor.



A typical Bolinao strain of native

Identified major problems in native chicken production were the occurrence of diseases, slow and stunted growth associated with breeding problems and lesser egg production. Recommended solutions include the conduct of capacity building of farmers and technicians on various technologies through seminars and trainings with educational tour and/or benchmarking in model native chicken production farms.

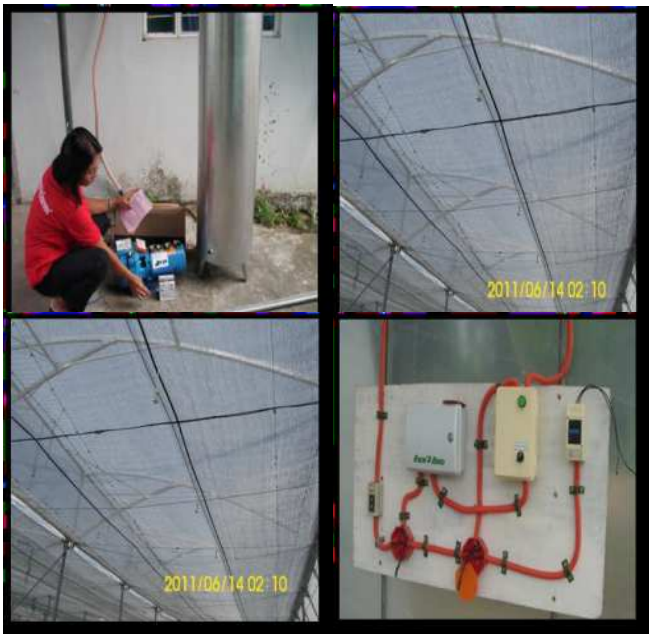
Evaluation of Goat Manure Tea as Biofertilizer cum Biopesticide for Lowland Rice and Vegetable Production

Goat manure tea (GMT) was evaluated as a biofertilizer cum biopesticide on rice (var. PSB Rc 82) and tomato (var. Magilas). GMT was produced by steeping shredded goat manure in water at 1:2 goat manure:water ratio for 15 days. A dark brown liquid with shelf life of more than three months, GMT was initially pungent whose odor gradually faded upon storage. NPK analysis showed a highly reduced content in comparison with the raw shredded goat manure and vermicast. Under laboratory conditions, GMT exhibited molluscicidal action against golden snails, a serious pest of lowland rice, at 2.5% to 15% concentration. Plant damage was inversely proportional to GMT concentration. Based on a choice test, GMT caused a slight antifeedant effect on *Helicoverpa armigera* larvae. GMT also inhibited larval growth by lengthening number of days to pupation; although their respective pupae had shorter days than control. GMT soil-drenched on tomato seedlings showed the nutrient enhancing property with taller, more robust and greener leaves than the untreated ones. However, GMT inhibited tomato seed germination more than rice seeds but no antagonistic effect on damping-off organisms infecting tomato seedlings. Microbial analysis showed bacteria as the major component of GMT. Presumably, in addition to the beneficial bacteria, the cocktail of partially and undigested foods, digestive juices and urine are the components responsible for the dual properties of GMT. The potential of GMT as biofertilizer cum biopesticide for lowland rice and tomato will be ascertained under field conditions.

Rehabilitation of Facilities of ILIARC Satellite Stations-2 for An Efficient Technical Services

1. Rehabilitation of the greenhouse

The greenhouse that occupies a 1000 sq. meter area is renovated with misters and blowers for an efficient watering of the crops inside. Irrigation is highly computerized and the amount of water to be delivered per hill is calibrated at the precise amount.



2. Renovation of the ISS2 R & D Building

Rooms were provided with new curtains and air conditioners. The walls were repainted from top down, glass doors have been installed, tables have been replaced with new ones and fitted with glass covers.

3. Repair of the floriculture nursery

The topside of the floriculture nursery was covered with black netting and all the braces have been changed and repainted. Presently, it is used for propagating ornamentals, dragon fruit, etc. and for establishing seedling growth of tomatoes before transplanting to the field.

4. Construction of the vermiculture area cum laboratory for the goat manure project

The area is well secured with interlink wire fence and gate. There are three wormbeds where production of vermicast is being efficiently done. The department's national campaign for organic agriculture through production of organic materials for crop production is also housed in this structure.

Calibration of Fertilizer Recommendation for N, P & K Using Yield Response to Corn

One of the posing challenges in a soil fertility program is the calibration of soil analytical testing results against the response of the crop to the applied amelioration. Correlation experiments were done in the past to verify the derived fertilizer recommendations but never been updated nor calibrated.

Expansion of corn areas in the region, does not only pose danger in irreversible malnourishing the soil due to heavy use of inorganic fertilizers but also wasting money, depriving the farmers of higher net income in the long-term and pollution. Some deficiencies or toxicities are only visible and felt after many croppings of 'misinterpreting' the soil analysis. The development of site specific fertilizer recommendation is to maintain plant nutrients at a certain level so as not to be a limiting factor in any stages of corn, from planting to harvesting.

It is therefore important to establish a site-specific basis thru field calibration trials to reliably predict the most economical level to maintain the nutrient status of the soil and give the maximum quality yield.
The project's main objective is to update fertilizer recommendations for corn at various levels of soil nutrient content to attain maximum economic yield.

The study was conducted in 8 sites across the region. Results showed different fertilizer recommendation rates specific for each province based on average yield responses to N, P & K as follows:

Province	kg N, P_2O_5, K_2O/ha
Pangasinan	170-50-48
La Union	150-33-36
Ilocos Sur	150-30-48
Ilocos Norte	150-43-66

However, a general rate of 175-30-30 kg NPK/ha is also applicable in all the provinces of Region I.

To have a more conclusive result, these rates were verified for another corn season (2011-2012 DS) in 4 sites across the region. To date, crop-cutting and data gathering is on-going.

Community-based Participatory Action Research (CPAR) on Integrated Farming Systems

Community-based Participatory Action Research (CPAR) Program is a location-specific research cum extension that deals with improved farming system technologies for specific micro agro-climatic environment within province/municipality. Its objective is to increase farm productivity and income within the context of sustainable production system following the CPAR dimensions.

The project is implemented in four (4) municipalities representing each of the provinces in the region in partnership with the Local Government Units (LGUs). In these sites, four (4) different types of farming systems are showcased.

1. CPAR on Integrated Rice-rice-rice + duck farming system in San Gabriel, La Union

A total of 17 farmer-partners showcased the farming system, of which 9 are from brgy. Bumbuneg and 8 are from Brgy. Bucao. Area planted during DS 2011, WS 2011 and DS 2011-2012 is 5.0, 12.79, and 14.0 has. respectively.

Actual demonstration on the formulation of home-made feeds using locally available feed resources for ducks was conducted to train farmers to formulate a low-cost and quality feeds for ducks. It also helps farmers to familiarize with the different locally available source of feeds nutritious for ducks. Hands-on

training on micro financing was also done to equip the association and the farmer-partners in managing project funds.

The farmer-partners attended the lakbay-aral to National Swine and Poultry Research and Development Center at Tiaong, Quezon organic farm of Cong. Irvin Alcala also visited for the organic rice, vermicomposting, organic swine and poultry production and the commercial production of mallard ducks in Candava, Pampanga.

Technology interventions on rice include integrated nutrient management, integrated pest management and waste management utilization. Average yield of rice during DS 2010-211, DS 2011 and WS 2011 is 4.23 t/ha; 3.20 t/ha and 3.74 t/ha, respectively. Likewise, net income averaged at 32,604.75 P/ha; 32,551.70 P/ha and 24,521.52 P/ha during DS 2010-211, DS 2011 and WS 2011, respectively.

As per result of PRA, only mallard duck is the livestock component of the project. However, due to complicated management as treated by farmers, some farmers shifted to Muscovy, thus, the project has 2 livestock component which is muscovy and mallard ducks. Matured male and female muscovy composed of 78 heads, 42 are growers and 39 are ducklings, while matured male and female mallard are 74 heads. The total duck population is 250 heads muscovy and 74 heads mallard. Establishment of forage legume i.e.trichantera and mani-manihan provide farmers-partners with ready source of forage as supplemental feeds for the ducks.

2. CPAR on Integrated Rice-corn-corn + goat farming system in Sto. Domingo, Ilocos Sur

The covered barangays of Lussoc and Borobor has 21 farmer-partners showcased the introduced farming system with a total area covered of 18.0 hectares for rice-corn-corn.

Lakbay-aral was conducted to appreciate the different alternatives of recommended technology on goat and organic production. Sites visited were the commercial type of goat production in Alaminos, Laguna and Nasugbu, Batangas, and an Organic Farm at Lipa City, Batangas where the owner produces organic fertilizer through vermicomposting.

Rice technology interventions include INM and IPM (use of light trap). With a total area of 18 has, wet season of 2011 yielded an average of 6.32 t/ha for hybrid rice and 3.32 t/ha for inbred, with a net income per hectare of Php58,013.42 and Php34,014.00, respectively.

Technology interventions showcased for corn production also include INM and IPM (use of light trap, releasing of earwig and trichogramma evanescens). Yield for dry season 2010-2011, with an area of 13.35 hectares, averaged at 5.98 t/ha and DS 2011 with an area of 12.3 hectares, averaged at 6.0 t/ha. Net income for corn per hectare resulted to P38,643.84 and P17,612.30, respectively. The reduction of net income was due to high cost of gasoline and oil used in the irrigation of crops.

For the livestock component, 4 bucks were awarded but it was found out that 1 head is a carrier of a virus disease known as Caphrine Arthritis Encephalitis (CAE) so a euthanasia was conducted. With this, an additional 2 breeder bucks were awarded to replace said CAE positive and to prevent inbreeding.

3. CPAR on Integrated Rice-corn + mango + goat farming system in San Carlos City, Pangasinan

The covered barangays are Tarectec and Turac with 20 farmer-partners with a total area of 10 hectares for Rice-corn and maintained five (5) fruit bearing mango trees/farmer.

Hybrid rice (bigante) was used in testing the interventions that includes INM and IPM specifically the utilization of light trap. An average yield of 4.24 t/ha with a net income of Php26, 330.48 was obtained. The same intervention was done in corn technology with an average yield of 6.07t/ha and a net income of Php36, 912 during the DS 2010-2011.

A total of 100 fruit bearing trees were maintained. However, due to frequent occurrence of rainfall and high relative humidity during the flowering stage, only 47 trees became productive with an average yield of 1370 kg with a net income of Php43, 040 per tree.

Five (5) bucks were awarded as part of livestock component.

A total of 81 does were bred with a total offspring produced of 40 heads. One head buck was subjected to euthanasia due to incidence of the fatal viral disease Caphrine Arthritis Encephalitis (CAE).

4. CPAR on Integrated vegetables, rice- corn + goat farming system in San Nicolas, Ilocos Norte

A total of 18 farmer-partners from Brgys. San Agustin and San Pablo showcased the introduced farming system. A land area of 8.115 has, 1.07ha, 0.0835 ha, and 0.735 ha, were covered with rice, eggplant, squash and tomato respectively.

A total production of 33.522 metric tons of rice, 12.18 metric tons squash, 10.195 metric tons eggplant, 7.835 metric tons tomato, 16.517 metric tons glutinous and 32.007 metric tons yellow corn were gained.

Based from the results of the cost and return analysis, integration of the farming system obtained a net income of Php 288,709 in rice followed by eggplant (Php 169,732), yellow corn (PhP 165,266), squash (Php 101,435), tomato (Php 88,292) and glutinous corn (Php 60,524).

Eight (8) heads buck were loaned out and bred 128 does which resulted to 59 offspring, 28 are growers and 31 are sucklings. At present, the total goat population is 195 heads.

B. INTERNATIONAL CROP RESEARCH INSTITUTE FOR SEMI-ARID TROPICS (ICRISAT)-FUNDED PROJECT

Field Testing of ICRISAT Legume Varieties and Technologies in Selected Regions of the Philippines

Phase 2. Peanut On-Farm Trial

This is a collaborative project implemented by DA-BAR and ICRISAT (International Crop Research Institute for Semi-Arid Tropics) in selected regions in the Philippines. .

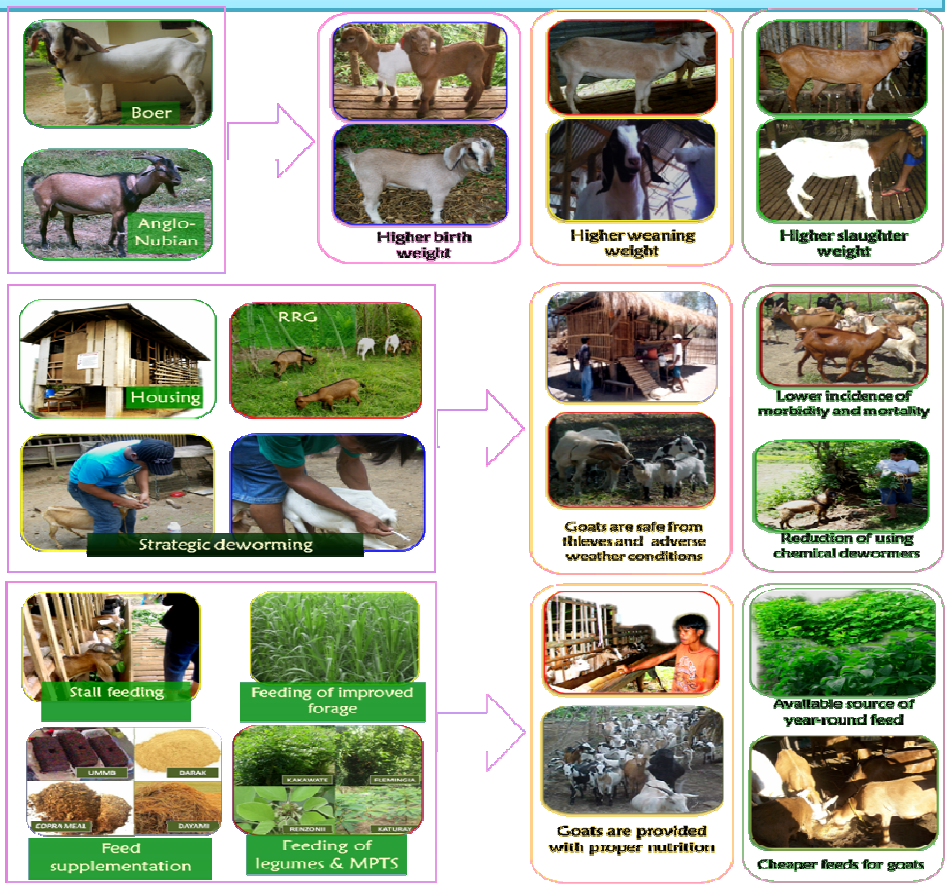
For Region 1, the project was conducted in Gumot, Rosario, La Union during CY 2011 wet season. Basal application of complete fertilizer (14-14-14) was done at the rate of 200 kg/ha.

Variety ICGV 99046 gave a yield of 2600 kg/ha while ICGV yielded 2120 kg/ha.

C. PHILIPPINE COUNCIL FOR AGRICULTURE, FORESTRY AND NATURAL RESOURCES RESEARCH AND DEVELOPMENT (PCARRD) – FUNDED PROJECTS

Upscaling the Rural Enterprise Development through Innovative Goat Productive Systems

This is a development project implemented aims to transform goat raising from a subsistence type of farm activity into a profitable goat livelihood employing farmer participatory approach and technology based rural enterprises. One hundred ninety (190) goat raisers served as farmer partners adopting housing, stall feeding and upgrading. The project covers 3 provinces, 14 municipalities and 45 barangays with nine organized farmers association with 461 members, 65% of which are male and 35% female.



- **Capability Building**. A total of 59 capability building activities such as participatory planning and technical briefings, technology seminars, cross visits, farmers livestock school, enterprise skills development trainings and goat festivals were conducted and participated by 4,531 farmer-partners and interested goat raisers. These resulted in faster adoption of technology options by farmers, enhanced positive attitudes, knowledge, skills and aspirations, increased in productivity and income, purchase of additional breeders, local government units refocused other projects to finance goat development programs and increased spill over sites and farmer cooperators and adopters.

- **Adoption of Technology Options across Project Sites.** All farmer-partners adopted elevated housing for the goats and stalled feeding/legume/MPTS supplementation, upgrading and strategic deworming as major technology options that improved the growth and reproductive performance and reduced mortality and morbidity.

- **Performance of Goat Genotypes.** There was a marked increase of 91.6%, 73.67% and 70.17% in the birth, weaning and slaughter weights, respectively. Likewise, there was an increased conception rate of 96.47 %, the kidding interval was fully attained (101.23%) and the kidding size was increased to114.67%. The pre–weaning mortality was reduced compared with the ISP target. The ease and high adoption of technology mixes translated a good growth and reproductive performance of the goat herd.

- **Economic Profitability.** In Brgy Kita-Kita, Balungao, Pangasinan, one farmer-partner Mr. Rogelio Saribay had registered a net income of P44,072.00 for his two-year operation of slaughter goat with a monthly income of P1,836.33.00 and with computed ROI of 61.59%. Another farmer-partner, Atty. Marlon Guerzo recorded a net income of P141,584.00 for his two-year operation of a 20 doe-level breeder enterprise with intervention with a monthly income of P5,899.33 with a computed ROI of 95.11%.

Project Site	Initial Population Inventory	Current Population Inventory	Increase in Population Inventory (%)
Phase I Pilot site: Tubao & Pugo	**399**	**662**	**65.91**
Control site: Bauang	**83**	**109**	**31.32**
Bauang, LU	**74**	**147**	**98.64**
San Juan,LU	**185**	**291**	**57.29**
Bacnotan, LU	**190**	**302**	**58.95**
Balungao, Pang	**227**	**601**	**164.76**
Bautista, Pang	**278**	**458**	**64.75**
Bayambang, Pang	**249**	**396**	**59.04**
Phase II Total	**1203**	**2195**	**82.46**
	Initial Doe-level Inventory	**Current Doe-level Inventory**	**Increase Doe-level Inventory (%)**
Phase I Pilot site: Tubao & Pugo	**201**	**294**	**46.26**
Control site: Bauang	**48**	**38**	**(20.94)**
Bauang, LU	**49**	**105**	**114.28**
San Juan,LU	**119**	**206**	**73.10**
Bacnotan, LU	**124**	**207**	**66.93**
Balungao, Pang	**181**	**389**	**106.07**
Bautista, Pang	**200**	**319**	**59.50**
Bayambang, Pang	**163**	**298**	**82.82**
Phase II Total	**836**	**1508**	**80.38**

- **Organization Development through Public-Private Partnership.**The strong and continued support of the concerned local government units in the promotion and development of goat industry as a sustainable enterprise project was manifested through the collaborative and financial support in the amount of P4.5 million for breeder stocks, drugs/biologics, training expenses, establishment of multiplier farm, including the continued technical support of their veterinarians. PLGU and MLGU focal persons (30 technicians/veterinarians) were designated to support in the implementation and monitoring of activities.

- **Environmental Impact and Benefits.** Agricultural farm wastes when given to goats can be converted to protein of higher value and goat manure can be composted as organic fertilizer. The average chemical NPK composition of processed goat manure is 1.09%, 0.74% and 1.61% respectively (DA RFU I Soils Lab***).*** With the high cost of inorganic fertilizers and the side effect towards soil degradation, the production of "green gold" organic fertilizer from goat manure is an excellent culture media for earthworms to produce vermicompost. The total production of processed goat manure was 968.94 tons or a non-cash equivalent of P4,844,500.00. It can be translated to non-cash savings of Php 25,497.00 per farmer partner.

- **Institutionalization and Sustainability Efforts.** The project employed participatory governance of the stakeholders in the planning, implementation, monitoring and evaluation and feedback systems of the project. Advocacy and communication of the results is being shared or given back to the LGU and the community. The good working relationship of the project TEAM (*Together, Each Achieve More)* and among stakeholders is considered a very important factor in the good implementation and sustainability of the project. On top of these, LGU capacitating and empowerment is the key to sustain the development efforts and institutionalization of project activities.

Technology *Gabay* Program

The Department of Agriculture- RFU 1 serves as Partner-Member Agency (PMA) in the implementation of Farmers' Information and Technology Services (FITS) under the Techno Gabay Program (TGP) in Balungao, Sta. Barbara and Alaminos, Pangasinan. S & T interventions on organic tomato production, organic rice production and goat production in complete confinement were showcased. There were 6 trainings and 6 field days conducted to promote the Package of Technology (POT) and S & T interventions to at least 30 farmers.

Leaflets written in the local vernacular were distributed as part of the TGP-IEC component. All FITS- Information System content build-up particularly on farmers' profile and interconnectivity were also monitored.

D. REGIONAL AGRICULTURAL AND FISHERY COUNCIL (RAFC)

The Agricultural and Fishery Council (AFC) serves as feed-back mechanism on the policies, plans and programs of the DA. The Council is tasked to monitor and evaluate impacts of programs and projects to clientele-beneficiaries and recommend policies and strategies that stimulate responsiveness, openness, transparency and accountability in governance.

Accomplishments of the RAFC-I for CY 2011 were as follows:

- Conducted 98 regional/provincial/municipal AFC meetings
- Conducted midyear and year-end assessment cum planning workshops
- Conducted two (2) briefings on *Agrikultura Kaagapay ng Bayang Pinoy* (AKbay) Program and orientation briefings of the 209 farmhousehold beneficiaries on their roles and responsibilities in the project Finance Agreement (PFA)
- Monitored and evaluated the following projects:

NAME OF PROJECT	NO. OF PROJECTS MONITORED
Four Wheel Tractor	2
Farm-to-Market Roads	24
Village Type Dryers	2
LEAD Projects	62
Shallow Tube Well	42

- Prepared and passed the following resolutions:

RAFC

1. Resolution requesting the National Food Authority (NFA) thru Mr. Amadeo B. de Guzman, Manager to consider the certification from the MAO attesting to the number of cavans harvested, land area and cropping season of the farmers, to sell their produce to the NFA buying stations.
2. Resolution earnestly requesting the Secretary of Agriculture, Hon. Proceso J. Alcala to study the output (FY 2011 Work and Financial Plan) of the HVCDP during the planning workshop held at Consuelo, Lingayen, Pangasinan on March 15-16, 2011.
3. Resolution requesting the OIC-Regional Executive Director, Renato A. Maguigad of the DA-RFU I, City of San Fernando, La Union to extend full support to the small-scale producers of organic fertilizer in the region particularly in the marketing of their produce.
4. Resolution requesting the OIC-Regional Executive Director, Renato A. Maguigad of the DA-RFU I, City of San Fernando, La Union to allow reimbursement as nature in claiming the payment of the catering services of the MAFC in the conduct of their meetings.
5. Resolution requesting the Provincial Agriculture Office of the Province of La Union thru Ms. Imelda Sannadan, Provincial Agriculturist to allow representative from the AFC to closely monitor the conduct of getting soil samples in the different areas of the province of La Union.
6. Resolution requesting the DA-RFU I thru the OIC-Regional Executive Director, Dr. Valentino C. Perdido to notify the RAFC any DA-RFU I activities involving the participation of the City/Municipal AFC Chairs/Members in the local level.
7. Resolution requesting the DA-RFU I and the Office of the Provincial Veterinarians of the four provinces to strictly enforce the quarantine and inspection of livestock shipments in the Ilocos Region.

PAFC-Ilocos Sur

1. Resolution requesting the Ilocos Sur Seed Growers Association to provide discount to farmers buying certified seeds in their own locality.
2. Resolution requesting the Law Enforcement Council (PLEC) thru its Chairman, Governor Luis "Chavit: Singson for a stringent implementation of fishery laws.
3. Resolution requesting the Chairman of the Provincial Law Enforcement Council Governor Luis "Chavit" Singson to deputize AFC Leaders of the eighteen coastal municipalities/cities of Ilocos Sur as fish warden.

PAFC-Ilocos Norte

1. Resolution requesting the Technical Education Skills Development Authority (TESDA) to cause the conduct of training on "salabat" making for the ginger producers of Ilocos Norte.
2. Resolution requesting PhilRice to provide carbonizer to all the Chairpersons of the MAFC of Ilocos Norte in order that all of them could make their own organic fertilizer.
3. Resolution requesting the provincial government of Ilocos Norte thru the Hon. Governor Imee R. Marcos to donate a lot for the establishment of farmers agribusiness center preferably east of the provincial agriculture office building that would serve as a one-stop-shop for the farmers, RIC, 4-H club and all RBOs of Ilocos Norte.
4. Resolution requesting Hon. Jejomar C. Binay, Vice President of the Philippines to donate one unit (1) vehicle for the use in monitoring of various projects of the DA and to carry out smoothly all the functions of PAFC of Ilocos Norte especially in attending RAFC meetings.
5. Resolution to advocate a adopt-a-school program by the PAFC in the province of Ilocos Norte.
6. Resolution requesting the DA-RFU I to provide quality vegetable seeds for the typhoon affected areas in the province of Ilocos Norte.

PAFC-La Union

1. Resolution requesting the Hon. Secretary Proceso J. Alcala of the DA thru the OIC-Regional Executive Director, Renato A. Maguigad of the DA-RFU I to propose for consideration on the expansion of the small and medium agricultural manufacturing industries engaged in agricultural business based in Metro Manila to be based in Region I.
2. Resolution requesting the investor c/o Hon. Rosalie M. Ellasus, Sangguniang Bayan Member of San Jacinto, Pangasinan to submit a position paper to the Council regarding the propagation of GMO Bt Eggplant for our information and discussion.
3. Resolution requesting the office of the Hon. Manuel C. Ortega, Governor of the province of La Union to provide twenty-five (25) units of Tungho knapsack sprayers to be distributed to the PAFC officers, PAFC Sectoral Chairs and MAFC Chairs of the province of La Union.

PAFC-Pangasinan

1. Resolution creating the PAFC working committee to oversee the successful implementation of the proposed adopt-a-mountain program of the Council.
2. Resolution for the PAFC to enter into a memorandum of agreement with the DENR to participate in their adopt-a-mountain program.
3. Resolution requesting assistance from the BFAR to grant bangus fingerlings to marginal fisherfolk of Anda and Bolinao that were affected by fish kill.

SPECIAL/OTHER PROGRAMS/PROJECTS

MUNICIPAL/BARANGAY FOOD TERMINAL PROJECTS

The Municipal and Barangay Food Terminal Projects are municipal/barangay-based food depot and distribution system offering safe and quality agri-fishery products at low prices to the consumers. This project comprises direct marketing of fresh agri-fishery food products from producers to be sold on a wholesale and or/retail price basis, at a price lower than the prevailing prices in the market, to its target communities or clienteles. The agri-fishery food products shall consist but not limited to fish, chicken, meat, fruits and vegetables.

For this year, five (5) municipal and five (5) barangay food terminal projects were awarded by the DA-RFU I thru the Agribusiness and Marketing Assistance Division (AMAD) in a counter parting scheme with the recipients/proponents in the region.

Proponent	Operator	Location	Counterparts		Status
			DA-RFU I	Proponent	
a. Municipal					
1. LGU-Bagulin, La Union	Filipino Tigergrass Growers MPC	Brgy. Baay, Bagulin, La Union	PhP1 Million (400,000-trading capital and 600,000-trucking facility)	Manpower and Working Capital	Operational
2. LGU-Pinili, Ilocos Norte	LGU-Pinili	Brgy. Poblacion, Pinili, Ilocos Norte	PhP1 Million (Construction of building)	Land, Working Capital, Manpower	Construction is on-going
3. LGU-Baccara, Ilocos Norte	LGU-Bacarra	Brgy. Buyon, Bacarra, Ilocos Norte	PhP4 Million	PhP25,000.00	Construction is on-going
4. LGU-Naguilian, La Union	LGU-Naguilian	Brgy. Ortiz, Naguilian, La Union	PhP1.5 Million (structure)	PhP2.63 Million (lot)	Clearing of the site is on-going
5. LGU-Sugpon, Ilocos Sur	*Samahang Nayon Farmers Asscociation*	Brgy. Poblacion, Sugpon, Ilocos Sur	PhP1.5 Million (structure and working capital)	PhP500,000 (lot/ structure)	Operational
b. Barangay					
1. LGU-San Nicolas, Ilocos Norte	San Pablo Multi-Purpose Cooperative	Sitio 5, San Pablo, San Nicolas, Ilocos Norte	PhP170,000-trading capital, PhP100,000 -building improvement, 1 unit chest freezer, 20 pieces plastic crates, 1 digital weighing scale	Manpower, working capital, building and lot	Operational
2. LGU-Sudipen, La Union	San Francisco Sur Barangay Council	Brgy.San Francisco, Sudipen, La Union	PhP170,000-trading capital, PhP100,000 -building improvement, 1 unit chest freezer, 20 pieces plastic crates, 1 digital weighing scale	Manpower, working capital, building and lot	Operational
3. LGU-Santol, La Union	LGU-Santol	Brgy. Poblacion, Santol, La Union	PhP170,000-trading capital, PhP100,000 -building improvement, 1 unit chest freezer, 20 pieces plastic crates, 1 digital weighing scale	Manpower, working capital, building and lot	To be launched on 2012
4. LGU-Gregorio H. Del Pilar, Ilocos Sur	LGU-G.H. del Pilar	Brgy. Poblacion Sur, Gregorio H. Del Pilar, Ilocos Sur	PhP170,000-trading capital, PhP100,000 -building improvement, 1 unit chest freezer, 20 pieces plastic crates, 1 digital weighing scale	Manpower, working capital, building and lot	To be launched on 2012
5. LGU-Paoay, Ilocos Norte	Nagbacalan Barangay Council	Brgy. Nagbacalan, Paoay, Ilocos Norte	PhP100,000-- working capital, 1 unit chest freezer, 20 pieces plastic crates, 1 digital weighing scale	Manpower, working capital, building and lot	Operational

RICE PROCESSING COMPLEX- STA. BARBARA, PANGASINAN

The Rice Processing Complex (RPC) in Sta. Barbara, Pangasinan was launched last September 5,2011. This is a grant project funded by the Government of Korea through the Korea International Cooperating Agency (KOICA) purposely to improve efficiency in the rice postproduction system through reduction of postharvest losses, enhancement in the quality of milled rice, improvement of the distribution system, and maximization of rice by-products.

For 2011, there were 1,252,289.64 kilograms of palay procured, 795,329.15 kilograms palay dried and 787,044.85 kilograms milled from 297 individual rice farmer-beneficiaries. A total sales of PhP 13,350,794.15 was generated from rice milled (PhP12,549,748.50), rice bran (PhP571,942.75), brown rice (PhP209,846.00) and rice bin lid (PhP19,296.90).

The RPC is managed and operated by the National Agribusiness Corporations (NABCOR). The Philippine Center for Postharvest Development and Mechanization (PhilMech) is responsible for the over-all supervision of the project during the construction phase and provides technical assistance along the areas of postharvest including the operation and maintenance of the machinery and equipment.

Components of the RPC includes production support facilities (tractors and mechanical rice transplanters); buildings (warehouse and support structures); seed processing plant (dryer, cleaner and cold storage); drying plant; ricemill with color sorter, grader and bagger; hauling facilities (truck, forklift and conveyor); and training support facilities.

ORGANIKONG PALAYAN IN PANGASINAN (PROMOTING SUSTAINABLE AGRICULTURE IN WESTERN PANGASINAN)

The Organikong Palayan in Pangasinan (Promoting Sustainable Agriculture in Western Pangasina) is a DA-funded project worth PhP4.35 Million of the La Liga Policy Institute. This aims to enhance capacities of farmers on sustainable agriculture; provide actual production support for farmers who will shift to sustainable agriculture; and encourage local government support to sustainable agriculture programs, Specifically, this aims the following:

- To encourage the shift to sustainable agriculture practices among farmers;
- Mobilize support from local government in terms of policies and programs; and
- Promote sustainable agriculture as a key strategy for local economic development.

The project covered two (2) barangay assemblies with participants coming from ten (10) barangays:

1. Alaminos City
2. Bani
3. Burgos
4. Dasol

A total of 1,200 farmers were benefited from the different components of the project, namely:

- Barangay assembly;
- Season-long training;
- Learning form; and
- Production support.

The project has already conducted general assemblies and organic fertilizer production trainings. The season-long training started on November 2011 and it will end on February 2012.

Municipality/ City	Activities								
	General Assembly (GA)			Organic Fertilizer Production Training			Season-Long Training		
	No. of GA conducted	Participants	Date Conducted	No. of trainings conducted	Participants	Date Conducted	No. of trainings conducted	Participants	Date Conducted
Burgos	1	300	Aug. 25,2011	1	40	Sept.7 - Oct. 19,2011	1	31	Nov. 11, 2011 - Feb. 17,2012
Bani	1	222	Aug. 25,2011	1	117	Sept.9 - Oct. 19,2011	1	56	Nov. 4, 2011 - Feb. 17,2012
Dasol	1	85	Aug. 26,2011	1	86	Sept.8 - Oct. 20,2011	1	61	Nov. 10, 2011 - Feb. 16,2012
Alaminos City	1	106	Sept. 20,2011	1	90	Sept.30 - Oct. 18,2011	1	52	Nov. 8, 2011 - Feb. 14,2012
Total	**4**	**713**		**4**	**333**		**4**	**200**	

AGRIKULTURA KAAGAPAY NG BAYANG PINOY (AKBay) PROGRAM

The *Agrikultura Kaagapay ng Bayang Pinoy (AKBay)*Program is a new program under the Regional Agricultural and Fishery Council (RAFC) which intends to assist the local government units address the increasing incidence of poverty in their respective areas by providing livelihood opportunities for the poorest of the poor in the agri- and fishery-sector. Among the thirty one (31) provinces in Luzon and Visayas, the province of La Union is one of the recipients of this program. For the first tranche of the project, 209 farm households beneficiaries from the nine (9) municipalities of the province that belong to the 4th, 5th and 6th class municipalities were benefited. Each farm household was given Ph10,000.00 as start–up fund without interest and collateral. However, the farm household beneficiaries are required to return the funds based on the nature and projected cash flow of the project, as approved by the RAFC and DA-RFU I within 2 to 3 years.

Municipality	No. of FH Benefitted	Amount Released	Name of Project
Municipality of Tubao	23	230,000.00	Swine Fattening
Municipality of Pugo	23	230,000.00	Goat Raising Project – 4 Swine Fattening Project - 19
Municipality of Santol	24	240,000.00	Swine Fattening
Municipality of Sudipen	23	230,000.00	Swine Fattening Project – 22 Acquisition of small farm implements (hose) - 1
Municipality of Burgos	23	230,000.00	Softbrooom Making – 11 Swine Fattening Project – 10 Goat Raising Project – 1 Buy and Sell of Various Fruits - 1
Municipality of Bagulin	23	230,000.00	Softbroom Making – 21 Swine Fattening Project - 2
Municipality of Sto. Tomas	23	230,000.00	Swine Fattening Project – 17 Goat Raising Project – 3 Siganid Culture – 1 Buy and Sell of Agri-commodities - 2
Municipality of Caba	23	230,000.00	Swine Fattening Project
Municipality of San Gabriel	24	240,000.00	Broiler Production – 11 Buy & Sell of Softbroom - 13
TOTAL	**209**	**2,090,000.00**	

LIVELIHOOD ENHANCEMENT FOR AGRICULTURAL DEVELOPMENT (LEAD) PROJECT

This year, two (2) swine fattening projects were awarded to Turod Multi-Purpose Cooperative of Brgy. Turod, Cabugao, Ilocos Sur, and Paraiso ARBs Multi-Purpose Cooperative of Brgy. Labut Sur, Santa, Ilocos Sur amounting to PhP150,000.00 and PhP100,000.00, respectively.

Moreover, a total of P136,050.00 of loans were collected from the different beneficiaries of LEAD projects regionwide. Bulk of the collection came from the province of Ilocos Sur with 93.75% share or Ph127, 550.00, 5.15% or Ph7,000.00 from the province of La Union and 1.10% or Ph1,500.00 from the province of Ilocos Norte. The collected amounts per province were divided as follows: 30% for the municipality, 50% for the province and 20% for the region. From each share, 95% will be earmarked for projects, while 5% will be utilized for the administrative and operational expenses of the AFCs.

Proponent	Address	Name of Project Project	Amount Collected
GMAP Bugbuga	Bugbuga, Sta. Cruz, I. Sur	Goat Raising Project	1,000.00
GMAP Salcedo, Ilocos Sur	Salcedo, I. Sur	Goat Raising Project	2,000.00
GMAP Baracbac	Baracbac, Sinait, I. Sur	Goat Raising Project	14, 500.00
GMAP Dadalaquiten	Dadalaquiten, Sinait, Ilocos Sur	Goat Raising Project	7,900.00
GMAP Cabangtalan	Cabangtalan, Sinait, I. Sur	Goat Raising Project	14, 050.00
GMAP Oaig Daya	Oaig Daya, Galimuyod, Ilocos Sur	Goat Raising Project	26, 600.00
GMAP Quibit-quibit	Quibit-quibit, Sinait, I. Sur	Goat Raising Project	8, 000.00
Sapriana FA	Sapriana, Sinait, I. Sur	Goat Raising Project	6, 000.00
Tapao FA	Tapao, Sinait, I. Sur	Goat Raising Project	4, 400.00
GMAP Bungro	Bungro, Cabugao, I. Sur	Goat Raising Project	2,000.00
Cadanglaan FA	Cadanglaan, Sinait, I. Sur	Goat Raising Project	10,000.00
Sigay Fed. RIC	Sigay, Ilocos Sur	Goat Raising Project	6,100.00
GMAP Jordan	Jordan, Sinait, Ilocos Sur	Goat Raising Project	1,000.00
Bayanihan MPC	Palali Sur, Sta. Lucia	One Unit Tractor	10,000.00
GMAP Bacsayan	Bgy. Bacsayan, Sta. Cruz, Ilocos Sur	Goat Raising Project	2,000.00
SISSRA	Santiago, Ilocos Sur	Meat Processing Equipment	8, 000.00
GMAP Bulbulala	Bgy. Bulbulala, Santiago, Ilocos Sur	Goat Raising Project	3,000.00
Baliw-laud RIC	Bgy. Baliw-Laud, Sta. Maria, Ilocos Sur	Hog Fattening Project	1,000.00
RIC of Bgy. 29	Bgy. 29, Laoag City, I. Norte	Meat Processing Proj.	1,500.00
Alzate RIC	Bgy. Alzate, Bangar, LU	Swine Fattening Proj.	7,000.00
		TOTAL COLLECTION	**136,050.00**

INSTITUTIONAL DEVELOPMENT SERVICES

The DA-RFU I thru the Institutional Development Section formulated plans and programs to support the organization, revitalization and strengthening of rural based organizations/peoples' organizations/farmers groups in the agri-sector. These group/associations/ organizations include the following:

- 4-H Clubs;
- Rural Improvement Clubs (RIC) ;
- Ilokos Region *Pambansang Mannalon, Magbabaul, Mag-uuma, Magsasaka ng Pilipinas* (P4MP);
- Young Filipino Farmers Training Program in Japan Alumni Association of Region 1 (YFFTPJAA-R1);
- Region I Federation of Corn Cluster Associations Inc. (RFCCAI);
- Federation of Vegetable Growers Association Inc. of Region I (FVGAI); and
- other commodity/farmer associations.

Regional Organization	Clubs/ Association/ Organization	No. of Members
4-H Club	402	1,088
RIC	2,019	98,680
P4MP	893	60,800
YFFTPJ	4	36
RFCCAI	50	2,550
FVGAI	20	1,000
Total	**3,388**	**164,154**

This year, 3,388 clubs/associations/organizations were revitalized/strengthened benefiting 164,154 member-beneficiaries. Bulk of the total members were from RIC and P4MP with total shares of 60.11% and 37.04%, respectively.

Livelihood Projects

For 2011, the DA provided a total amount of PhP5.66 Million worth of livelihood projects to rural based organizations/peoples/ farmers groups. Through the 4-H Club Youth Development Program of the Agricultural Training Institute (ATI), a total of 14 livelihood projects were awarded to the 4-H Club members amounting to PhP950,000.00. This includes goat and sheep production, swine and cattle fattening, and instant miki production. Also, there were five (5) livelihood projects worth PhP860,000.00 awarded to RIC members, namely: vegetable and mushroom production, swine fattening, goat production and bangus processing. Likewise, vermi-composting projects with total value of PhP3.85 Million were awarded to 11 P4MP organizations in Ilocos Sur.

Regional Organization	No. of Clubs/ Organization-Beneficiaries	Livelihood Projects	Amount (PhP)
1. 4-H Club	14	Goat and Sheep Production, Swine and Cattle Fattening, and Instant Mikki Production	950,000.00
2. RIC	5	Vegetable and Mushroom Production, Swine Fattening, Goat Production, and Bangus Processing	860,000.00
3. P4MP	11	Vermi-composting project	3,850,000.00
TOTAL			**5,660,000.00**

AGRICULTURAL ACHIEVERS

In pursuit of excellence in the field of agriculture, the R & D personnel of DA-RFU I and farmers/fisherfolks and rural-based organizations (RBOs) were recognized for their achievements!

Under Research and Development, the project entitled "**Upscaling Rural Enterprise Development (UPRED) through Innovative Goat Production Systems in Region I**" won the ***Best Research Paper under the Development Category*** during the DA-BAR National Research Symposium held at Manila Hotel on October 12,2011. Said research project was also awarded as ***2nd Best Research Paper under the Development Category*** during the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCARRD) National Symposium on November 10,2011 held at DOST-PCARRD, Los Baños, Laguna.

On the other hand, the ***Gawad Saka*** **Search** gave due recognition to farmers, fisherfolks and RBOs for their remarkable achievements in agricultural development. This year, **two (2) Awardees of Region I** were recognized at the National Gawad Saka Awarding last December 13, 2012 at Malacañang, Manila as follows:

1. **Balidbid RIC of Salcedo, Ilocos Sur – Outstanding RIC**

Plans and programs of the Balidbid RIC are focused on livelihood, food and nutrition, home mamangement, social and religious services, *bayanihan*, and clean and green programs. Among their livelihood programs/ projects are swine fattening and breeding, poultry raising, buy and sell, vegetable gardening and others. These project are funded as loan from the LEAD Program of the DA and the Municipal RA 7171 fund of Salcedo, Ilocos Sur. The Council was adjudged for three (3) consecutive years as Best Performing Non-Government Organization under the *Salisal Iladawanna Gaget Lumugar tapno Agsaknap Timpuyog* (SIGLAT) Program of the Provincial Government of Ilocos Sur. To date, there are already 184 active rural women members of the council.

2. **Bani Municipal Fisheries and Aquatic Resources Management Council (FARMC) of Bani, Pangasinan – Outstanding FARMC**

For almost 14 years, the Bani MFARMC has already established good rapport and partnership with the LGU in managing coastal resources. Among their notable projects and activities were: a) the establishment of mangrove nursery; b) mangrove reforestation and rehabilitation; c) establishment of aquasilviculture; d) coastal clean-up and waste management; e) water quality monitoring; f) issuance of auxiliary invoice; g) dismantling of illegally constructed fyke nets, patrol and surveillance; h) fisheries registration and licensing at the barangay level; i) market denials in public market; and j) conduct of quarantine checkpoints.

The Council participated in crafting the Comprehensive Coastal Development Plan for C 2001-2010 and the Coastal Resource Management Plan for CY 2005-2009 of the municipality. They have also been part in the review of the existing Management Plan of Bangrin Marine Protected Area (MPA) and in the formulation and implementation of the Fisheries and Development Plan in CY 2010.

In addition, eight (8) regional winners were recognized during the Regional Gawad Saka Awarding Ceremonies held on December 13, 2011 at ORT, San Fernando City. Leading this year's awardees was the province of Ilocos

Sur with four (4) awardees, followed by Ilocos Norte with three (3) , and one (1) in Pangasinan.

Category	Awardee	Address
Outstanding Rice Farmer	Mr. Ricarte Corpuz	Madiladig, Laoag City, Ilocos Norte
Outstanding HVCC Farmer	Mr. Hilario Refuerzo	Poblacion, Sta. Catalina, Ilocos Sur
Outstanding Young Farmer	Mr. Emerson Tabios	Catuguing, San Nicolas, Ilocos Norte
Outstanding Sugarcane Farmer	Mr. Corazon Taberna	Pussuac, Sto. Domingo, Ilocos Sur
Outstanding Small Farmer/Fisherfolk Organization	Bagnos Multi-Purpose Cooperative	Binacag, Banna, Ilocos Norte
Outstanding Rural Club Improvement (RIC)	Balidbid Rural Improvement Club	Balidbid, Salcedo, Ilocos Sur
Outstanding Municipal Agriculturist	Mr. Mamerto Tacbas	Sto. Domingo, Ilocos Sur
Outstanding Extension Worker	Ms. Irma Baltero	Sta. Maria, Pangasinan

HUMAN AND FINANCIAL RESOURCES

MANPOWER

The manpower complement of the DA-RFU I continued to diminish in the year 2011. Unfilled positions totaled 76 as of year-end, reducing the filled positions to 212 of DA-RFU I's total plantilla position of 288. Vacancies piled up because of the moratorium on the filling up of vacant positions even as the DA-wide proposed rationalization plan has yet to be approved.

The 41 detailed CODA personnel continued to contribute to the accomplishment of the programs/ projects/activities of DA-RFU I. But even their ranks started to thin down with the retirement of two and the recall of one.

In July 2011, the Pangasinan Provincial Center (PPC) was established. This was done to strengthen the delivery of services and programs of the DA-RFU I to the sector's stakeholders in the province of Pangasinan. The PPC evolved from the unification of the resources of ILIARC Satellite Station III (ISS III); Sta. Barbara Breeding Station (SBBC); Regional Animal Disease and Diagnostic Laboratory (RADDL), all situated in Sta. Barbara, Pangasinan and ISS IV in Sual, Pangasinan. It was necessary to pull out some personnel from the DA-Regional Office to make the PPC set up work and function as conceived.

All the while that the vacancies came piling up, the hiring of job order contractors somehow solved the lack of manpower in both technical and administrative work. A total of 74 job order contractors were hired to pitch-in in the various operating units lacking in manpower.

FINANCIAL RESOURCES

Fund allocation of DA-RFU I in 2011 totalled to PhP650.33 Million. Of this, 83.5% or PhP542.99 Million was allocated for current appropriation and 16.5% or PhP107.34 Million for continuing appropriations.

Bulk of the total budget was allocated for Banner Programs. Rice shared the highest allocation of 41.58% of equivalent to PhP270.438 Million. HVCDP ranked second contributing a total of PhP61.516 Million or 9.46%, followed by Corn sharing 7.11% or PhP46.217 Million and 2.40% for livestock with PhP15.618 Million allocation.

Function/Program	CY 2011 Allotment (PhP'000)		
	Current Appropriation	Continuing Appropriation	Total
GASS	49,331	169	49,500
STO	7,291	106	7,397
Crops	36,995		36,995
Livestock	18,234	390	18,624
RLIP	6,955		6,955
MPBF	11,544		11,544
Rice	217,842	52,596	270,438
Corn	43,328	2,889	46,217
HVCDP	39,304	22,212	61,516
Livestock	15,618		15,618
Market-Oriented Programs	6,910	5,773	12,684
Organic Agriculture	17,782		17,782
PDAF	63,085	16,438	79,523
Pension and Gratuity	4,758		4,758
BAFPS	163		163
KOICA	3,850	1,038	4,888
NIN		5,727	5,727
Total	**542,990**	**107,337**	**650,328**

REGIONAL MANAGEMENT COUNCIL (RMC)

AGRICULTURAL TRAINING INSTITUTE (ATI)

- Conducted 149 trainings on rice (50), corn (2), hvcdp (35), 4H (32), organic agriculture program (9), regular program (8), and e-extension program benefiting 10,129 farmers, rural women, youths, rural-based organizations and LGU/NGO representatives

BUREAU OF AGRICULTURAL STATISTICS (BAS)

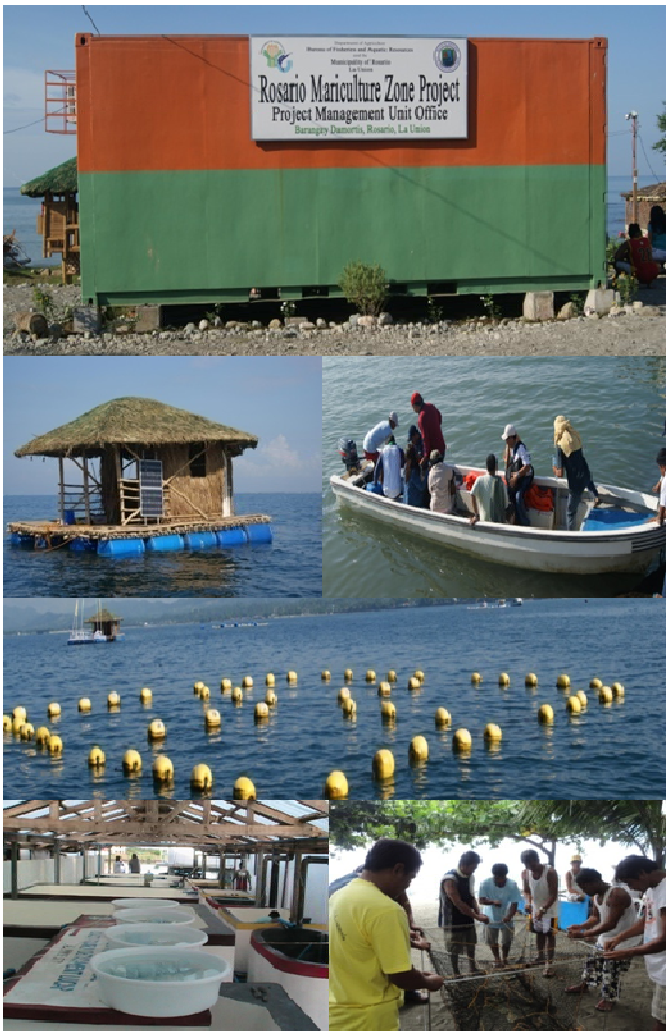
- Conducted surveys on rice, corn, hvc, livestock and fisheries with 29 agricultural data bases operationalized
- Prepared and submitted 340 stastical reports on rice, corn, hvcdp , livestock and fishery programs

BUREAU OF PLANT INDUSTRY (BPI)-NSQCS

- Conducted seed testing of 10,320 samples of foundation seeds and 8,304 samples of registered seeds
- Issued certification of 25,300 samples of foundation seeds, 139,194 samples of registered seeds and 164,494 samples of certified seeds

BUREAU OF FISHERIES AND AQUATIC RESOURCES (BFAR)

- Operationalized the Regional GET EXCEL Tilapia Hatchery in Paoay, Ilocos Norte and assisted eight LGU fish farm which resulted to the production of 7.38 Million and distribution of 2.47 Million tilapia fingerlings to 522 LGUs/ fishfarmers
- Awarded eight (8) units of submersible payao projects and 60 units of ready-made fish traps to 300 members of ten (1) fisherfolk associations in designated municipal water zones and technology demonstrations areas
- Awarded 5,000 kilos of seaweed propagules and materials as input assistance for the establishment of a seaweed grow-out to five (5) identified fisherfolk association recipients in the region
- A total of 140,000 pieces high value species (seabass, snapper, pompano) post fry were also provided for BFAR techno demo projects in mariculture zones to determine the growth and survival of these species
- Maintained the operation of the Regional Seaweed Nursery in Alaminos City, Pangasinan and produced 55.70 metric tons
- Produced 7,028 metric tons of milkfish and high value finfishes such as pompano in five (5) mariculture parks located in Badoc,Ilocos Norte; Narvacan, Ilocos Sur; Sto. Tomas and Rosario, La Union; and Sual, Pangasinan
- Maintained three (3) technology station/centers for freshwater and marine fisheries activities, on-station techno demo trials, research and development and trainings
- Conducted regular investment fora for fisheries stakeholder to discuss relevant issues/concerns and development of the sector
- Participated in six (6) agri-aqua fairs/links/exhibits conducted by BFAR, BAR, LGUs and other agencies and showcased fishery products and technologies particularly the rope-framed cage for livelihood program under the mariculture zone projects as well as sand fish and abalone hatcheries



- Operationalized the abalone and sandfish hatcheries realizing a production of 239,500 pieces and distributed of 72,000 pieces of juveniles for culture techno demo, broodstock development and research
- Provided materials for the construction of 12 units seaweed dryer racks to fisherfolk associations in Burgos, Ilocos Norte and Anda, Pangasinan
- Conducted value-added product formulation in the Postharvest Development Center in RMatDec, Sto. Tomas, La Union.
- Conducted five (5) production-related and two (2) postharvest-related researches, namely:
    1. Verification Trial of *Caulerpa* in Ponds
    2. Verification Trial of Sandfish in Ponds
    3. Growth and Survival Response of Abalone to Different Species of *Gracilaria*
    4. Varietal Collection of Seaweeds
    5. Aqua Zoo Operation
    6. Formulation and Acceptability of Insta Meal (noodles, bangus asado and bangus viscera)
    7. Shelf-life Testing and Nutritional Analysis of Nutri-enriched Noodles
- Conducted 23 aquaculture, regulatory, postharvest, municipal fisheries technology and other fishery-related trainings such as financial management, entrepreneurial, leadership and personnel development
- Established and maintained 46 techno demos on integrated farming, abalone culture, aquarium fish production, seagarden, freshwater, fishcage, catfish and postharvest technology project in partnership with LGUS, SUCs and private sector through counterparting scheme
- Distributed 8,000 copies of IEC materials to walk-in clients and participants during workshops/trainings and installed 12 billboards for fishery projects
- Implemented the Fisheries School-on-the –Air, a joint program with the PCARRD, DMMMSU Zonal Center, AGHAM Partylist and DZWM in partnership with Santeh Feeds Corporation
- Assisted 16 LGUs in the implementation of fish sanctuaries through the provision of materials (market buoys, flags and ropes), underwater assessment and video documentation
- Conducted Rapid Resource Assessments (RRAs) and deployment of artificial reef modules in Tagudin, Ilocos Sur and Lingayen, Pangasinan (10 units of artificial reef per module were constructed per site)
- Conducted forty-eight (48) field surveys and collected 272 samples for biotoxin/red tide monitoring in the municipalities of Anda, Bani, Bolinao and Alaminos City
- Maintained/operated the Regional Fish Health Laboratory at Dagupan City, Pangasinan where 459 fish samples were analysed
- Conducted 399 inspection of fishport/landing areas and fish processing plants to ensure food safety
- Conducted inspection/verification of commercial fishing vessels, fishpond lease agreements and issued corresponding permits/licenses, and boarding inspections of incoming and outgoing aircrafts and seacrafts to ensure that fishery products on-board are free from diseases

BUREAU OF SOILS AND WATER MANAGEMENT (BSWM)

- Distributed 120 units of composting facilities to Ilocos Norte (46), Ilocos Sur (23), La Union (14), and Pangasinan (37) with a total production of 607,552 kilograms of vermicompost
- Constructed/rehabilitated nine (9) diversion dams (DD) and four (4) small water impounding projects (SWIP) covering a service area of 945 hectares

FERTILIZER AND PESTICIDE AUTHORITY (FPA)

- Conducted 3,000 inspections/verifications/ investigations on 120 products with 200 licences issued/facilitated
- Conducted regular monitoring on prices, supply and demand of 200 types/kinds of fertilizers and pesticide products
- Conducted four (4) trainings on fertilizer and pesticide concerns

FIBER INDUSTRY DVELOPMENT AUTHORITY (FIDA)

- Produced 554 cocoons of silkworm reared by 31 farmers
- Attended two (2) trade fairs with total sales of PhP69,520.00 from cocoon craft and abaca products serving 137 clients
- Conducted nine (9) capability and livelihood trainings benefiting 129 participants
- Issued five (5) licenses to industry participants
- Conducted regular monitoring of 13 programs/projects regionwide

NATIONAL FOOD AUTHORITY (NFA)

- Procured 382,818 bags of palay with 5,224 farmers served
- Distributed 1,093,269 bags of rice at 50 kilograms per bag to market and community-based outlets, NFA rolling stores, Food for School Programs and farmers organizations
- Maintained 23 units of NFA-owned warehouses with a combined capacity of 1,233Million bags

NATIONAL MEAT INSPECTION SERVICES (NMIS)

- Monitored and evaluated a total of 26,721,163 heads of slaughtered livestock and poultry with a production of 30,665 metric tons
- Conducted various laboratory analysis of 2,201 samples for pathogen, drug residue, water quality and meat and meat products testing
- Evaluated three (3) new and twenty two (22) existing meat establishments for accreditation
- Collected a total of PhP4.51 Million of meat inspection fees
- Evaluated eighteen (18) non-accredited/expired meat establishments
- Conducted surveillance to two (2) cities and thirteen (13) municipalities in Pangasinan re: illegal slaughter and selling of "hot meat" in coordination with the local meat inspector and meat vendors
- Conducted post–abattoir strike to eight (8) public markets covering Pangasinan
- Monitored outlets and cold storages for imported meat products

NATIONAL IRRIGATION ADMINISTRATION (NIA)

- Restored 3,548.24 hectares of irrigable areas serviced by national and communal irrigation systems
- Rehabilitated 1,118.66 hectares of irrigated areas serviced by national and communal irrigation systems
- Established 558.53 hectares of irrigated areas serviced by national and communal irrigation systems

NATIONAL TOBACCO ADMINISTRATION (NTA)

- Provided technical and production assistance to 43,988 tobacco farmers under the Integrated Farming and Other Income Generating Activities Project (IFOIGAP) covering 28,592 hectares of tobacco plantation
- Established one (1) Tobacco Dust Processing Plant at Barangay Fernando, Sto. Tomas, La Union for the production of tobacco dust for fishponds
- Conducted 650 trainings on new farming technologies for IFOIGAP
- Produced and distributed 2,600 copies of tobacco technoguide leaflets
- Constructed/repaired 996 curing barns/sheds benefiting 793 farmers
- Produced 154kilograms of quality tobacco seeds
- Established market linkages between 7,038 tobacco farmers and tobacco buying firms
- Distributed 6,400 tobacco seedlings to farmers regionwide

NORTHERN FOODS CORPORATION (NFC)

- Provided farm inputs to 2,126 tomato farmers covering 652 hectares
- Processed a total of 23,642 metric tons of tomato producing 404 metric tons of tomato paste
- Conducted eight (8) research studies on processing tomato development and improvement, fertilizer and crop management, soil fertility mapping and intervention studies

PHILIPPINE CENTER FOR POSTHARVEST DEVELOPMENT AND MECHANIZATION (PhilMech)

- Distributed 24 units of rice reaper, 20 units of rice thresher, and 52 units of hand tractors as follows:

Province	Equipments		
	Reaper	Thresher	Hand Tractor
Pangasinan	11	16	48
La Union	5	2	1
Ilocos Sur	5	1	1
Ilocos Norte	3	1	2
Total	**24**	**20**	**52**

PHILIPPINE COCONUT AUTHORITY (PCA)

- Developed 2,297.05 hectares of Goal 1 areas planted and intercropped with coconut Fertilized 29,900 coconut trees and distributed 1,196 bags of fertilizer covering 299 hectares with 338 farmer-cooperators
- Produced 93 seedlings of embryo-cultured macapuno (ECM) and distributed 54 ECM seedlings to 24 coconut farmers
- Provided technical assistance on integrated pest management to 2,952 farmers covering 1,639 hectares
- Registered two (2) coconut traders, four (4) coconut processors/manufacturers/exporters, and 65 coconut lumber dealer/processors collecting a total fees of PhP61,020.00
- Assisted in the accreditation of 10 coconut farmers organizations (CFOs) with 405 farmer-members
- Conducted seven (7) trainings on coconut farming and processing technologies and capability building
- Endorsed/Assisted four (4) CFOs to access credit amounting to PhP18.25 Million with 19,165 farmer-beneficiaries

PHILIPPINE CARABAO CENTER (PCC) - ILOCOS NORTE

- Extended 3,103 artificial insemination services in 400 barangays in 47 municipalities in the provinces of Ilocos Norte, Ilocos Sur and Abra, and municipalities of Sta. Praxedes and Claveria in Cagayan
- Under Bull Loan Program, 38 bulls were released to qualified recipients complementing the artificial insemination program in accelerating dairy herd build-up
- Trained six (6) new technicians in Basic Artificial Insemination and Pregnancy Diagnosis
- Produced a total of 22,032.69 liters of milk, 22% of which was fed to calves and 78% was processed into different dairy products generating a total income of PhP694,660.00

PHILIPPINE CARABAO CENTER (PCC) - LA UNION

- Conducted AI to 1,286 heads of carabao covering 60 municipalities and 297 barangays
- Conducted regular monitoring to 254 heads of calfdrop animals inseminated benefiting eight (8) cooperatives in La Union and Pangasinan
- Loaned out fifteen (15) heads of carabao under Bull Loan Program
- Produced a total of 39,837.74 liters of milk, 25%of which was fed to calves and 75% was processed into different dairy products and home consumption generating a total income PhP1.37 million

PHILIPPINE CROP INSURANCE INCORPORATION (PCIC)

- Enrolled a total of 11,021 farmer-beneficiaries for crop insurance amounting to PhP375.83 Million—PhP11,742.92 Million for 8,629 rice, corn and hvcc farmers and PhP964.00 Million for 2,392 livestock and non-crop beneficiaries
- Provided claims of 3,385 beneficiaries with total amount of PhP28.049 Million covering 4,522.89 hectares of rice and corn and 74 heads of livestock

PHILIPPINE FISHERIES DEVELOPMENT AUTHORITY (PFDA)

- Monitored arrivals of 1,043 fishing boats and 80 cargo vessels with total volume of 798,925 kg of fish, 9,000 bags of cement,6,862.18 cu.m. of gravel and sand, 528,738 bags of fertilizer, and 348 heads of livestock generating a total income of PhP5.2 Million
- Monitored entry of 1,754 tricycles, 343 medium vehicles, 207 heavy vehicles, 1,451 6-wheeler trucks and 1,828 10-wheeler trucks

PHILIPPINE RICE RESEARCH INSTITUTE (PHILRICE)

- Conducted research and development program for increased productivity and profitability of rice and rice-based farming in northwestern Luzon with five (5) components, namely:

1. Technology Management Options for Stress-prone Environment

Study 1. Adaptation of recommended rice varieties for unfavorable agro-ecosystems in Ilocos

Study 2. Evaluation of modern upland rice varieties in northwestern Luzon

Study 3. Evaluation and selection of early maturing rice varieties for the rainfed lowland areas

Study 4. Assessment of damage caused by major rice pests under rainfed ecosystem

Study 5. Development and evaluation of fertilizer management options for rice and rice-based lowland areas of the Ilocos

2. Socio_Economic and Policy Research for Rice-Based Farmin Systems in Northwestern Luzon

Study 1. Evaluation of the direct seeding technology in farmers' fields in northwest Luzon

Study 2. On-station *Palayamanan* Model Farm: Showcasing the developed technologies for rainfed ecosystem

3. Crop Intensification and Diversification

Study 1. Upscaling the *Palayamanan* and Palaycheck System to increase productivity in rainfed areas of northwestern Luzon

Study 2. Women initiative to integrate vegetable production through Good Agricultural Practices (GAP) into the LSTD areas

4. Advanced Rice Science and Data Management

Study 1. Development of a GIS-based model for predicting rice yield in Ilocos Norte

Study 2. Database management of R&D outputs of PhilRice Batac

5. Advanced Rice Science and Data Management

- Rice museum and photo gallery
- Participation to agricultural exhibits
- Provided technical experts during the series of Agri-Pinoy briefings and technokliniks
- Broadcast and press releases
- Production and distribution of IEC materials
- Conduct of station's field day cum National Rice Awareness (NRAM) briefing

QUEDAN AND RURAL CREDIT GUARANTEE CORPORATION (QUEDANCOR)

- Released a total of PhP3.474 Million loans with 192 borrowers
- Collected a total of PhP17.89 Million loans with an accomplishment rate of 60.32%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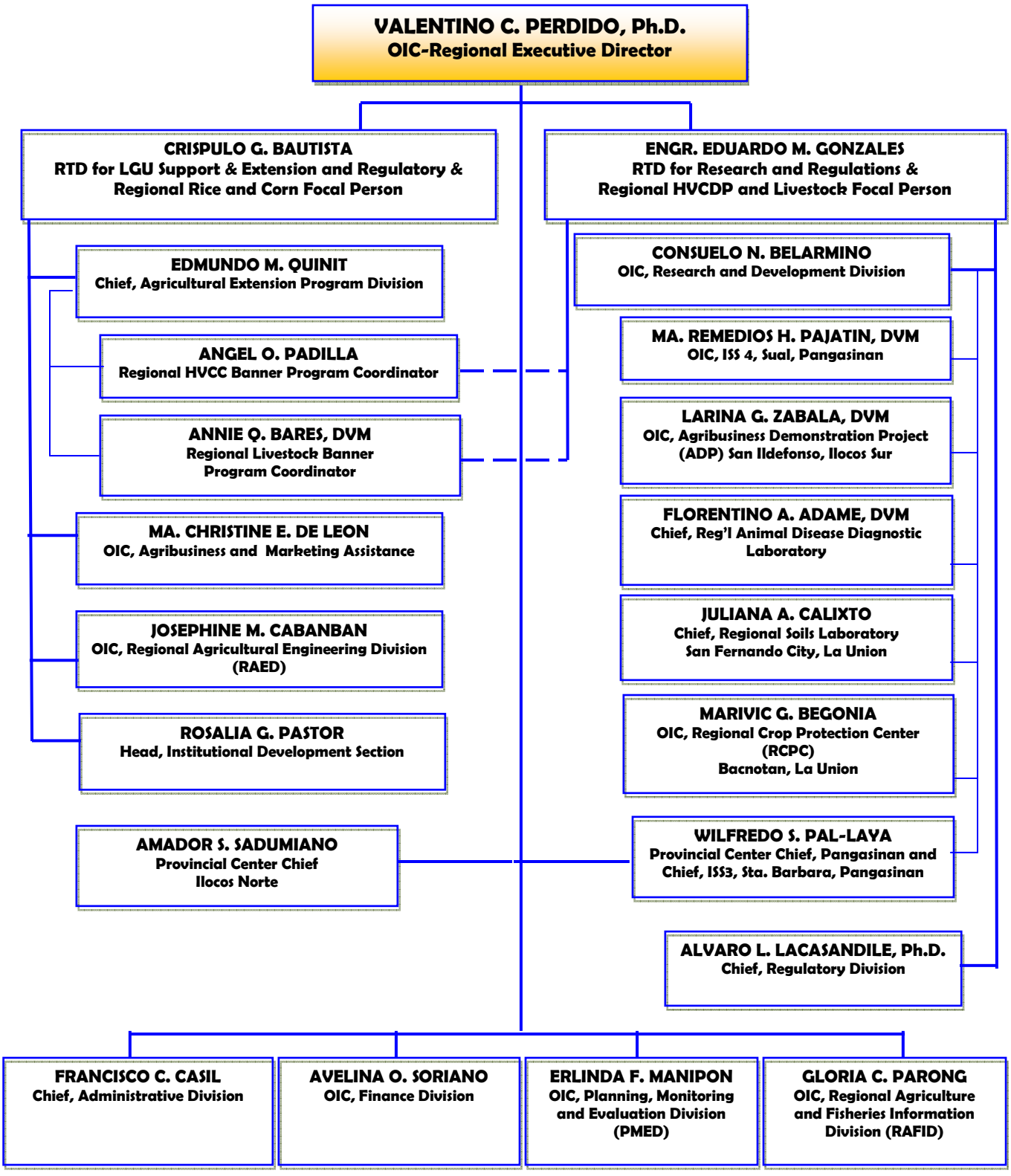

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