

## I. PRODUCTION PERFORMANCE IN REGION I

### A. Production Performance

#### Palay



*Region I remains to be one of the major contributors to the increasing rice production in the country.*

metric ton. Region I ranked 4<sup>th</sup> among the major rice producing regions in the country, contributing 9.64% to the national rice production of 18.03 million metric tons.

The growth in production was mainly attributed

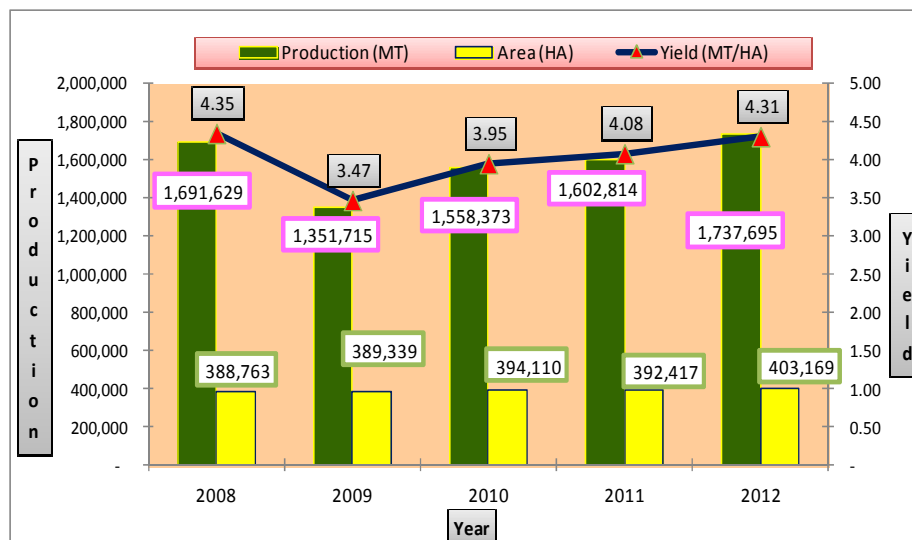
the past five years in the region. Also, area harvested increased by 2.73% from 392,417 hectares in 2011. The increase in area by 10,752 hectares and yield by 230 kg/ha were due to the repair/rehabilitation of irrigation systems and utilization of high quality hybrid and inbred seeds, respectively.

Of the total regional production, Pangasinan shared the largest contribution of 61% or 1.06 million metric tons, followed by Ilocos Norte at 18% or 314,234 metric tons and Ilocos Sur at 12% or 208,190 metric tons (Table 1). La Union contributed the least production share at 9% or an equivalent to 155,887 metric tons.

Palay production expanded by 8.4% from 1.60 million metric tons in 2011 to 1.74 million metric tons in 2012 (Fig. 1). From 2008 to 2012, the production output this year surpassed the peak level of year 2008's record of 1.69 million

to the increased productivity per hectare which went up by 5.64% from 4.08 in 2011 to 4.31 metric tons in 2012. This year's productivity level however is slightly lower than the 4.35 metric tons per hectare in 2008 - the highest yield posted in

**Figure 1. Palay production, area and yield, Ilocos Region, 2008-2012.**



*Aside from the good weather condition this year, the increase in rice production and yield was also attributed to the industrious and hardworking Ilocano farmers who have devoted their time and effort if only to contribute in the attainment of more than sufficiency of rice in the region.*

**Table 1. Rice Production and percentage share by province, Ilocos Region, 2012.**

Particular	Pangasinan	La Union	Ilocos Sur	Ilocos Norte	Total
Production (MT)	1,057,580	156,023	208,380	315,712	1,737,695
% Share	61	9	12	18	100

Source: BAS I

## Corn

Output in corn also posted a 12.08% growth, reaching production level of 434,720 metric tons this year from 387,882 metric tons in the previous year (Table 2). The region contributed 5.87% to the national production of 7.41 million metric tons. Ilocos Region maintained its rank as the 5<sup>th</sup> corn producing region in the country.

Yield per hectare boosted by 4.37% from 5.03 to 5.25 metric

tons. Area harvested also grew by 7.27% or additional 5,610 hectares from 77,183 hectares in 2011.

Among the provinces in Region I, Pangasinan remained as the leading corn producer which accounted 66% or 285,180 metric tons of the total regional output (Table 3). Ilocos Sur contributed 16% or 69,447 metric tons, followed by Ilocos Norte and La Union with 12% and 6%, respectively.

*Region I takes pride for being the major producer of the country's best quality corn.*



**Table 2. Corn production, area and yield, Ilocos Region, 2011-2012.**

Particular	2011	2012	Inc/Dec	% GR
Production (MT)	387,882	434,720	46,838	12.08
Area Harvested (Ha)	77,183	82,793	5,610	7.27
Yield (MT/Ha)	5.03	5.25	0.22	4.47

Source: BAS I

**Table 3. Corn production and percentage share by province, Ilocos Region, 2011-2012.**

Particular	Pangasinan	La Union	Ilocos Sur	Ilocos Norte	Region
Production (MT)	285,180	26,395	69,447	53,698	434,720
% Share	66	6	16	12	100

Source: BAS I

## High Value Crops

Production of high value crops totaled to 958,657 metric tons this year, which is lower by 0.30% than the 961,569.53 metric tons last year (Table 4).

Among the commodities, only fruits and rootcrops showed a decline in production by 3.10% and 1.29%, respectively. Mango suffered the biggest reduction in production among the fruits by

4.16% or 11,498 metric tons due to the effect of typhoons that prevented the bearing trees from recovery. Vegetables, covering *pinakbet* commodities, grew by 1.25% from 232,545 metric tons in 2011 to 235,449 metric tons in 2012. Likewise, legumes and other crops increased by 1.54% and 1.51%, respectively.

**Table 4. High value crops production (MT), Ilocos Region, 2011-2012.**

Commodity	2011	2012	Inc/Dec	GR (%)
Fruits	343,344	332,712	(10,632)	(3.10)
Rootcrops	36,204	35,737	(467)	(1.29)
Vegetables	232,545	235,449	2,904	1.25
Legumes	22,646	22,996	350	1.54
Others	326,831	331,763	4,932	1.51
Total	961,570	958,657	(2,913)	(0.30)

Source: BAS I

This year, Region I sustained its rank as the top producer of mango, garlic, tomato, eggplant, mungbean and peanut. The region provided 70% of the locally-produced garlic in the country. Mango, tomato, eggplant, mungbean and peanut contributed 30-40% to the national production.

## Livestock and Poultry

There were positive growths noted in livestock and poultry production in 2012. Total production grew by 5.44% or an additional 11,892 metric tons from last year's level. Among the livestock species, hog posted the largest increase in production by 7.58%, followed by carabao at 1.53%. Chicken also posted the biggest growth among poultry commodities at 7.99% or an additional 6,025 metric tons production. The increase in livestock and poultry was mainly attributed to the expansion of commercial chicken production, additional stocks from newly established farms in Pangasinan, and more contract growers of swine like Monterey.

**Table 5. Livestock and poultry production (MT), Ilocos Region, 2011-2012.**

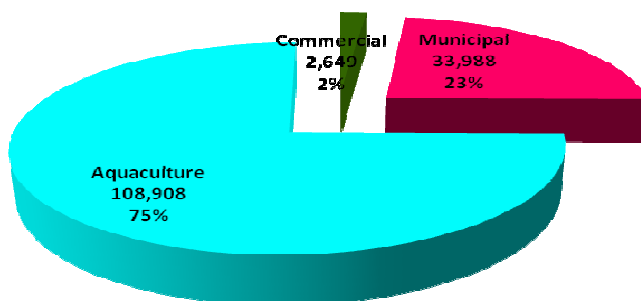
Commodities	Production (MT)			
	2011	2012	Inc/Dec	GR (%)
<b>Livestock</b>	<b>123,206</b>	<b>129,300</b>	<b>6,094</b>	<b>4.95</b>
Carabao	9,997	10,150	153	1.53
Cattle	26,817	26,979	162	0.60
Hog	75,951	81,706	5,755	7.58
Goat	10,441	10,465	24	0.23
<b>Poultry</b>	<b>95,218</b>	<b>101,016</b>	<b>5,798</b>	<b>6.09</b>
Chicken	75,370	81,395	6,025	7.99
Duck	1,860	1,863	3	0.16
Chicken eggs	16,462	16,236	(226)	(1.37)
Duck eggs	1,526	1,522	(4)	(0.26)
<b>Total</b>	<b>218,424</b>	<b>230,316</b>	<b>11,892</b>	<b>5.44</b>

Source: BAS I

## Fisheries

Fishery production went down by 3.14% from 150,264 metric tons in 2011 to 145,545 metric tons this year (Table 6). Aquaculture, which posted 1.25% increase in 2012 production, contributed 75% or 108,908 metric tons of the total fishery output (Fig.2). The remaining 25% was provided by marine fisheries, both municipal and commercial. However, production in municipal waters, both inland and marine, reduced by 13.18 or 5,158 metric tons from 39,146 metric tons in the previous year. Also, commercial fish catch went down by 25.51% from 3,556 metric tons in 2011 to 2,649 metric tons in 2011.

**Figure 2. Fishery production and percent share by commodity, Ilocos Region, 2012.**



Source: BAS I

**Table 6. Fisheries production (MT) , Ilocos Region, 2011-2012.**

Particulars	Production (MT)			
	2011	2012	Inc/Dec	GR (%)
Commercial	3,556	2,649	(907)	(25.51)
Municipal	39,146	33,988	(5,158)	(13.18)
Marine	36,246	31,850	(4,396)	(12.13)
Inland	2,900	2,138	(762)	(26.28)
Aquaculture	107,562	108,908	1,346	1.25
<b>Total</b>	<b>150,264</b>	<b>145,545</b>	<b>(4,719)</b>	<b>(3.14)</b>

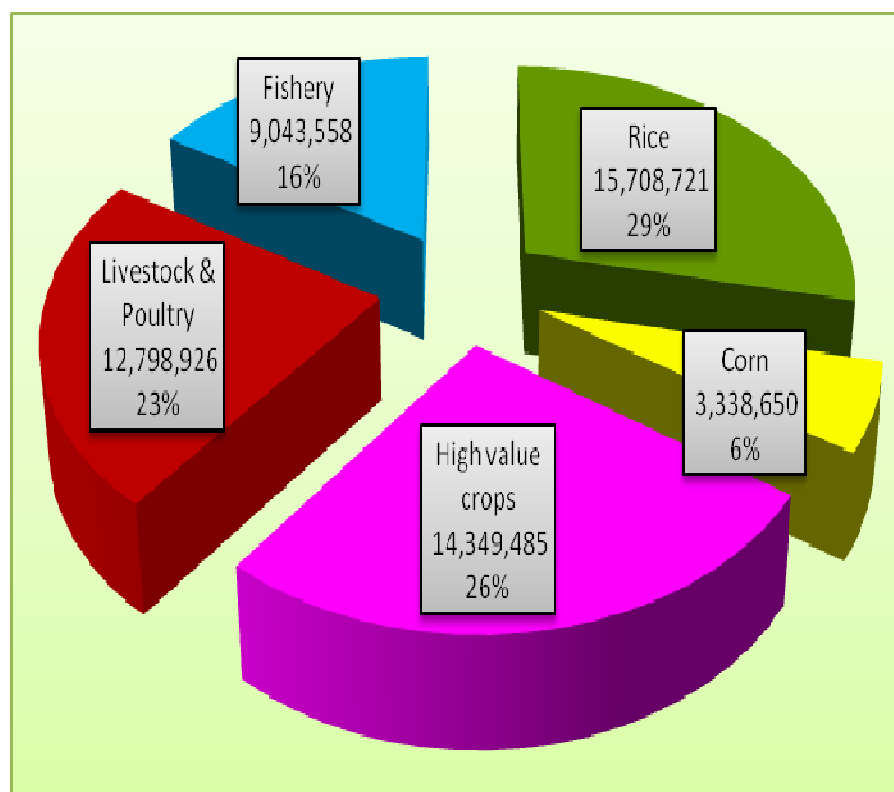
Source: BAS I

## B. Value of Production

For 2012, total value of production of agri-fishery sector at constant 2000 prices reached PhP55.24 Billion, higher by 3.5% as compared to last year's record of PhP53.35 Billion (Table 7). Of this, rice valued at PhP15.71 Billion contributed the largest share of 29% (Figure 3), which increased by 8.4% from PhP14.49 Billion in 2011. High value crops ranked as second highest contributor with 26% share valued at PhP14.35 Billion. Livestock and poultry shared 23% or PhP12.80 Billion. The fishery contributed 16% or PhP9.04 Billion, while the remaining 6% share or PhP3.34 Billion was contributed by the corn.

At current prices, total output is valued at PhP94.06 Billion, 9.0% higher than the PhP86.30 Billion in 2011. Positive growths were shown in all sub-sectors this year. Corn recorded the highest gain by 14.2% from PhP5.49 Billion in 2011 to PhP6.41 Billion in 2012. Rice was the second highest gainer with 13.4% from last year's output of

**Figure 3. Percentage distribution of value of production at 2000 constant prices, Agri-fishery sector, Ilocos Region, 2012**



Source: BAS I

PhP26.46 Billion. Fisheries, and livestock and poultry boosted 10.9% and 8.1%, respectively, from 2011 level of value of output. High value crops also exhibited slight increase by 2.2%.

**Table 7. Value of production (in thousand pesos) at constant and current prices, Agri-fishery sector, Ilocos Region, 2012**

Commodity	Value of Production (PhP'000)					
	At constant price		GR (%)	At current price		GR (%)
	2011	2012		2011	2012	
Rice	14,489,400	15,708,721	8.4	26,462,390	30,009,993	13.4
Corn	2,978,920	3,338,650	12.1	4,805,830	5,490,514	14.2
High value crops	14,466,819	14,349,485	(0.8)	21,890,460	22,377,318	2.2
Livestock & Poultry	12,136,290	12,798,926	5.5	20,312,440	21,960,188	8.1
Fishery	9,276,913	9,043,558	(2.5)	12,830,334	14,224,492	10.9
Total	53,348,342	55,239,340	3.5	86,301,454	94,062,505	9.0

Source: BAS I



## II. CONTRIBUTION OF AGRI-FISHERY TO THE REGION'S ECONOMY

### Food Sufficiency

This year, Region 1 continued to be more than sufficient in almost all major food commodities. Rice has a production surplus of 470,094 metric tons enough to cater the 4.87 million population with sufficiency level of 181% (Fig. 3). Corn, which also has a surplus in production necessary to meet the requirement of human and livestock consumption, attained a 154% sufficiency level. Likewise, fruits, vegetables and legumes attained sufficiency levels of 257%, 167%, and 110%, respectively. Rootcrops, on the other hand, showed deficit in both years.

Meat production also tallied a surplus with sufficiency level of 122%.

Despite the decrease in fishery production, the sub-sector has still excess supply and attained 123% sufficiency level this year.

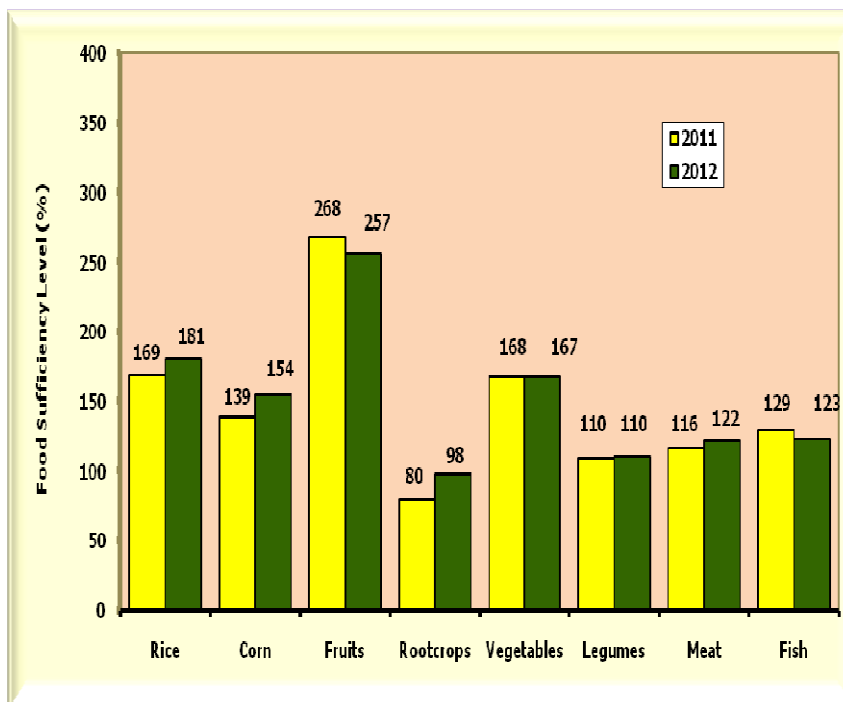


Figure 3. Food sufficiency level, Ilocos Region, 2011-2012.

### Jobs Generated

The agri-fishery sector generated a total of 11,394 jobs for this year. The construction/rehabilitation of irrigation facilities, which include national and communal irrigation systems (NIS/CIS) and small-scale irrigations systems such as diversion dams, small water impounding projects, etc, contributed the highest share of 55% or 6,255 jobs generated (Fig. 4). The post harvest and production facilities, which include flatbed dryers, multi-purpose drying pavements, community-based seed banks or bodegas, and equipments like tractors, reapers, etc., contributed 30% or 3,395 jobs generated. A total of 1,444 jobs or 13% was shared by the establishment/construction of farm-to-market roads. The remaining 2% or 300 jobs were contributed by the fishery post harvest facilities such as hatcheries, cages and laboratories.

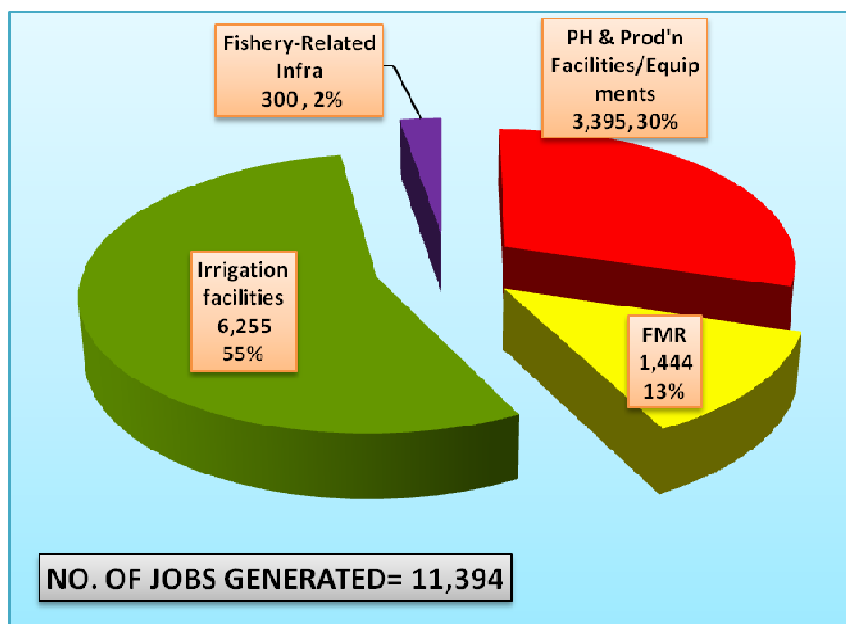


Figure 4. Jobs generated and percent share by type, Ilocos Region, 2011-2012.

### III. ACCOMPLISHMENTS: BANNER AND REGULAR PROGRAMS

#### Rice Banner Program

##### Production Support Services

To mitigate the effect of climate change, the program established 35 hectares for seed production of drought, submergence and saline tolerant varieties in different research satellite stations and seed grower areas in the region.

In order to strengthen farmers' access to quality seeds, the program established community-based seed-banks (CSBs) which is operated, developed and managed by the

farmers, Irrigators Associations (IAs), Peoples Organizations (POs), and Non-Government Organizations (NGOs). A total of 3,885 bags of 20-kilogram registered seeds were distributed to 6,000 farmer group beneficiaries for certified palay seed production. Also, five CSBs or seed *bodegas* were established and 6 units were rehabilitated regionwide.

Through the seed buffer stocking project, a total of 4,106 bags of

certified seeds were distributed to typhoon affected farmers as a rehabilitation program. Additional 2,515 and 1,608 bags were also distributed to farmer-beneficiaries of Plant Now Pay Later (PNPL) Program and to farmers who planted rice for the period September 16-30, 2012, respectively. Bulk of the seeds were distributed to Pangasinan representing 77.3% or 6,362 bags of the seed buffer stocks.

**Table 7. Palay seed distribution, Ilocos Region, 2011-2012.**

Province	Seed Distribution (bags)					Total no. of beneficiaries
	CSB Starter seeds	Seed Buffer Stocks				
		Rehab	PNPL	Early Planting	Total	
Pangasinan	1,883	3,558	2,515	259	6,362	9,559
La Union	398	15	-	294	309	2,009
Ilocos Sur	425	81	-	-	81	1,332
Ilocos Norte	1,179	422	-	1,055	1,477	2,382
Total	3,885	4,106	2,515	1,068	8,229	15,282



*DA-RFU I's seed production project assures rice farmers to be provided with quality seeds for higher production and yield.*

##### Other Infrastructure and Post Harvest Development Services

In support to the Rice Banner Program is the Rice Mechanization Program where various farm machineries and postharvest facilities were distributed and established. This program aims to improve processing, handling and storage, and ensure the availability of good quality rice grains for food and seeds.

Also, it aims to reduce postharvest losses from 16% to 9%. In 2012, a total of 136 farm/postharvest machineries and equipment (reapers, combine harvesters, rice cutter, moisture and pH meters) including 46,019 pieces of laminated trapals at 10 meters per

**Table 8. Post-harvest equipment and facilities distribution and construction, Ilocos Region, 2012**

Province	Farm Machineries/Postharvest-related Equipments						Postharvest Facilities		
	Rice Reaper	Combine Harvester	Rice Cutter	Moisture Meter	pH Meter	Laminated trapal	MPD P	Flat-bed Dryer	Palay shed
Pangasinan	12	6	33	7	-	21,734	21	10	-
La Union	2	-	9	1	30	8,100	7	4	7
Ilocos Sur	2	2	8	1	-	7,115	7	4	7
Ilocos Norte	4	3	12	4	-	9,070	2	6	3
<b>Total</b>	<b>20</b>	<b>11</b>	<b>62</b>	<b>13</b>	<b>30</b>	<b>46,019</b>	<b>37</b>	<b>24</b>	<b>17</b>

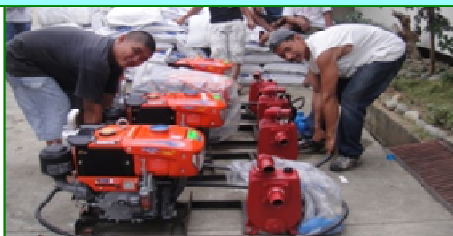
Source: Regional Engineering Group, DA-RFU I

piece were distributed, and 78 postharvest facilities (multi-purpose drying pavements, flatbed dryers and palay sheds) were established/constructed.

Meanwhile, there were on-going construction/establishment of 4 units of rice processing complex (RPC), 3 warehouses – two rehab and one new, and 3 bio-control laboratories.

## Irrigation Development Services

The region distributed 138 pumps and engine sets generating a service area of 276 hectares. In addition, one unit of Small Water Impounding Project (SWIP) was rehabilitated in La Union. A total of 40 units of Small Farm Reservoir (SFR) and 50 Diversion Dams (DD), were to be established and rehabilitated in CY 2012-2013.



Rice farmers receive their share of STWs during the ceremonial distribution held in Ilocos Norte's Office of the Provincial Agriculturist.



The rehabilitation of the Bussaoit SWIP in Bacnotan, La Union helps to irrigate at least 100 hectares for the benefit of 200 rice farmers.

## Extension Support, Education and Training Services

This year, a total of 1,615 rice farmers were empowered thru their participation in trainings and training-related events to access and discover effective, cost-efficient, and sustainable farming practices. There were 45 Farmer Field Schools (FFS) conducted – 30 batches during wet season (WS) 2012 and 15 batches during dry season (DS) 2012-2013. Other training-related events conducted were 8 batches of Retooling on Crop Pest Surveillance, 2 batches of Organization of Farm Service Providers, 3 batches of Institutional Development of Irrigators Associations (IA)/Small Water Impounding System Associations (SWISAs), and one Technology Capability Building of Pest Surveillance Team.

As a strategy to increase rice productivity, the program established 486 technology demonstrations – 299 sites of 7.5-ton technology for hybrid-irrigated, 152 sites of 6.5-ton technology for inbred-irrigated, and 35 sites of 5.0-ton technology for inbred-rainfed. These technologies showcased integrated crop management approach with emphasis on the use of hybrid and inbred seeds and efficiency of farm mechanization. Each site with 0.5 hectare of 7.5-ton techno demo was provided with 9 kg hybrid seeds, 250 kg organic fertilizers, 50 kg complete (14-14-14), 50 kg

urea (45-0-0), 25 kg muriate of potash (0-0-60), 250 grams zinc sulfate, and 0.5 liters of pre-emergence herbicide. Same inputs were provided to the 6.5-ton techno demos but inbred seeds were given at 20 kg per hectare per site.

In support to the pest surveillance and monitoring in rice clustered areas, eight (8) batches of two-day refresher course on pest surveillance and early warning system was conducted and attended by 315 AEWs and technical staff from DA-RFU I. As pilot of the Bantay-Peste Brigade for rice in the region, the eighteen (18) Local Farmer Technicians (LFTs) were designated as farmer-pest scouts. They have

attended the three-day training on Bantay-Peste Brigade to equip them on the familiarization of pests, and on pest damage and management.

One of the major activity on pest surveillance and monitoring is light trapping which started in 2011. For 2012, light trapping was conducted for the surveillance of the rice black bug (RBB) in Pangasinan particularly in Districts 5 and 6 in coordination with the local government units. To date, nine (9) light trapping activities were conducted in the region. A total of sixteen (16) technical briefings/farmers' meetings on rodent management were conducted in areas with high incidence of rodent infestation.



Farmers of Brgy. Calingayan in Sinait, Ilocos Sur get updated on the potential of high yielding rice varieties through the techno-demo that was established in their barangay.

**Table 9. Palay technology demonstration, Ilocos Region, 2012.**

Province	7.5-ton technology		6.5-ton tech	5.0-ton tech	Total
	WS 2012	DS 2012-2103	WS 2012	WS 2012	
Pangasinan	62	70	56	29	217
La Union	25	18	26	2	71
Ilocos Sur	40	18	34	2	94
Ilocos Norte	35	31	36	2	104
<b>Total</b>	<b>162</b>	<b>137</b>	<b>152</b>	<b>35</b>	<b>486</b>



## Research and Development

This year, ten (10) research studies (4 completed and 6 on-going projects) were con-

ducted through the Research and Development Division of DA-RFU I. These were as follows:

### A. Completed Projects

Title of Project	Highlights of Technology Developed
1. Performance evaluation of inbred rice applied with different bio-organic fertilizer in irrigated and rainfed ecosystems	<ul style="list-style-type: none"> <li>Under irrigated condition and using PSB Rc 82, application of 139-35-50 kg NPK/ha plus 20 bags vermi compost gave the highest yield of 5.98 mt/ha</li> </ul>
2. Performance evaluation of inbred rice applied with different bio-fertilizer in irrigated and rainfed ecosystems	<ul style="list-style-type: none"> <li>Under irrigated and rainfed conditions, 100% N requirement supplemented by vermitea as foliar spray at 7,30, and 50 days after transplanting (DAT) and at milking stage obtained the highest yields of 5.84 mt/ha and 6.6 mt/ha, respectively.</li> </ul>
3. Verification of improved cultural management practices on inbred and hybrid	<ul style="list-style-type: none"> <li>20% increase in yield over the farmers' practice</li> <li>Organic and inorganic fertilizer combination - 5 bags organic fertilizer based on the Provincial Quick Guide with application during growth stages as follows: <ul style="list-style-type: none"> <li>&gt; organic fertilizer applied at last harrowing</li> <li>&gt; all P and K requirement and 25% N requirement at early growth stage (0-14 DAT)</li> <li>&gt; 34% N requirement at active tillering stage</li> <li>&gt; 41% N requirement at panicle initiation</li> </ul> </li> <li>Application of muriate of potash in soil (1 bag/ha) mixed with urea during panicle initiation</li> <li>Application of vermitea (foliar) at 7,30, and 50 DAT, and at milking stage</li> </ul>
4. Regional evaluation cum demonstration of three Basmati rice varieties	<ul style="list-style-type: none"> <li>JM 2 performed best at 5.87 mt/ha yield under rainfed condition</li> <li>CLS 1 performed best in irrigated condition at a yield level of 4.3 mt/ha</li> </ul>



The study on Regional evaluation cum demonstration of three Basmati varieties was conducted on-station in Dingras and Batac, Ilocos Norte.

### B. Continuing Projects

Title of Project	Salient Accomplishments
1. Piloting the use of soil ameliorants in zinc-deficient areas	<ul style="list-style-type: none"> <li>25 kg zinc sulfate per hectare yielded an average of 4.46 mt/ha (26% increase) over the farmers' practice or no zinc application</li> </ul>
2. Piloting of drought-tolerant rice varieties in vulnerable areas in response to climate change	<ul style="list-style-type: none"> <li>In Pasuquin, highest yield was given by NSIC Rc 222 with 6.62 t/ha; PSB Rc 82 (farmers' variety) yielded 4.64 t/ha</li> <li>In Magsingal, Ilocos Sur, NSIC Rc 284 (Sahod Ulan 8) was the highest yielder with 6.13 t/ha; NSIC Rc 192 (farmers' variety) yielded 3.8 t/ha</li> </ul>
3. Piloting of saline-tolerant rice varieties in vulnerable areas in response to climate change	<ul style="list-style-type: none"> <li>In Sto. Domingo, Ilocos Sur, NSIC Rc182 (Salinas), NSIC Rc106 (Sumilao), and PSB Rc 88 (Naga) yielded 3.34; 3.50; &amp; 3.89 t/ha, respectively; NSIC Rc 138 (farmers' variety) yielded 2.31 t/ha.</li> <li>In Sta. Maria, Ilocos Sur, NSIC Rc 88, NSIC and NSIC Rc 88 gave yields of 3.96 and 3.89 mt/ha, respectively. Farmers' variety was PSB Rc 82 with yield of 3.5 t/ha</li> </ul>



Title of Project	Status	Salient Accomplishments
4. Efficacy test of humus plus	Continuing	<ul style="list-style-type: none"> <li>Under irrigated condition, highest yield of 6.32 t/ha was obtained from treatment RR (inorganic) + 1.5 RR Humus Plus ( 138-35-50 kg NPK/ha + 15 sachet Humus Plus) but comparable to treatment RR (inorganic) + RR Humus Plus ( 138-35-50 kg NPK/ha + 10 sachet Humus Plus) with a yield of 5.98 t/ha.</li> <li>In rainfed condition, RR (inorganic) + 1.5 RR Humus Plus gave the highest yield of 6.97 mt/ha</li> </ul>
5. Enhancing Climate Resiliency through Crop Dispersal: The Seed Stock Dispersal Scheme	Continuing under the Mariano Marcos State University (MMSU)	<ul style="list-style-type: none"> <li>Data gathering in-progress</li> </ul>
6. Water Harvesting for Rice Intensification and Crop Diversification in Region 1	Continuing under the Philippine Rice Research Institute (PhilRice)	<ul style="list-style-type: none"> <li>Redesigned the hydro-powered water pump using hard plastic as main component rather than GI sheets</li> <li>Development of the linear programming optimization model and acquisition of the LINGO software</li> </ul>

## Comprehensive Regulatory Services

To ensure the quality of seeds for planting, the National Seed Quality Control Services (NSQSC)

analyzed and certified 145,145 bags of inbred and hybrid seeds. A total of 2,419.877 hectares of rice field

were inspected and 919 samples were received and tested for seed testing.

## Corn Banner Program

## Production Support Services

This year, the program continued to provide assistance to seed production of open-pollinated variety (OPV) in the two research stations covering 4 hectares producing 10,000 kilograms. A total of 844 bags of OPV white and yellow corn seeds were distributed to 815 farmers under the plant-no-pay-later scheme.

For cassava production, there were 53,350 cassava planting materials distributed to LGU municipal nurseries and interested farmers.

The program also awarded six (6) units of 90 hp 4-WD farm tractor under counterparting scheme to 6 LGUs/farmer cooperatives/associations serving 1,200 hectares. Under the Biological Control Program, a total of 875 colonies of earwig (*Euborella annulata*) were produced in the three

(3) rearing stations of the Regional Crop Protection Center (RCPC) in Region I. These were released in 240 hectares benefiting 320 corn farmers. Likewise, 125,000 earwigs were distributed to interested farmers, LGUs and other agencies as their initial stocks. For the control of Asian Corn Borer, a total of 23,000 tricho cards were produced this year, of which 21,000 pieces were distributed to 280 corn growers covering 210 hectares planted to conventional varieties in Region I.

To update the fertility map and for appropriate fertilizer recommendation, the Regional Soils Laboratory in collaboration with the Local Government Unit (LGU) counterparts, conducted laboratory analysis of 900 composite samples in 45 corn cluster areas.



*Earwigs are reared at ILIARC's Crop Protection laboratory for distribution to corn farmers.*



*Farmer-beneficiaries of tractors get briefing from the suppliers about the operation and maintenance of said unit.*

## Irrigation Development Services

A total of 185 units of pump and engine sets were distributed to corn farmers generating a service area of 550 hectares.



*Farmer-beneficiaries pose with DA-RFU I officials led by RTD Crispulo Bautista (sitting 2nd to the left) after the turn-over of shallow tube wells in Mangatarem, Pangasinan.*

*Out of the 185 units distributed, Pangasinan gets the biggest share of 80 units followed by Ilocos Sur with 70. The provinces of Ilocos Norte and La Union received 18 and 17 units, respectively.*

## Other Infrastructure and Post Harvest Development Services

To reduce post-harvest losses in corn, the program distributed 28 units of hermetic cocoon and 5 units of hammer mill. Three (3) units of village-type corn processing center were funded this year and will be constructed in CY 2013. Also, 5 units of cassava granulator were provided for value-adding.



*Hammermill which are being used for grinding feed ingredients were distributed to corn farmers groups and cooperatives to support the DA's Corn and Livestock Integration Program. Before awarding said project, the Engineering Group together with the LGUs concerned inspects the said unit to ensure that it is in good condition.*

## Extension Support, Education and Training Services

In support to the pest surveillance and monitoring of major corn cluster areas in Region I, four (4) batches of technical briefing were conducted for the Agricultural Extension Workers (AEWs) under corn program. This was highlighted by the updates on corn pests particularly these that occurred in other regions such as the soil bug attacking corn.

In addition, piloting of the Bantay-Peste Brigade was initially implemented to twelve (12) Observation Stations (O.S.) identified by the DA-RCPC, Regional IPM Coordinator and the four (4) Provincial Agriculture Offices in the region during their consultative dialogue. A two-day training was conducted to refresh the identified 12 O.S. with the major corn pests and also some updates.

The Corn Planthopper (CPH), Asian Corn Borer (ACB) and rodents

are the prevalent pests of corn in Region I but still at manageable level. Monitoring is continuously done in major corn-clustered areas. Likewise, the Bt corn areas are also being monitored for any development of resistance, or emergence of new pests.

The program also conducted 20 batches of FFS in corn with 500 participants. Likewise, 28 entrepreneurial trainings on corn husk handicraft, corn-livestock integrated farming system, and cassava processing and cooking,

were conducted which were participated by 500 farmers, women and out-of-school youth. Four (4) trainings on cassava production technology were conducted to disseminate the package of technology (POT) developed.

The Regional Agriculture and Fishery Information Division (RAFID) produced 7,161 IEC materials for corn and cassava featuring the different cooking tips and cassava dishes.



*DA employees together with members of the RICs get a hands-on training on cassava cooking and processing to provide them additional livelihood projects and business opportunities.*



## Research and Development

The R & D Division also conducted research study entitled "Verification of Nutrient Expert-Based Fertilizer Recommendation for Hybrid Corn". This aimed to compare grain yield and profit attained by farmers with site-specific nutrient management (SSNM) versus their current practice, to validate and fine-tune nutrient expert software-based recommendations with farmers and to get farmers' feedback on the acceptability and profitability of the new practice.

Results of the study were as follows:

1. Across locations in Region I, SSNM was significantly higher in yield and profit compared to the farmers' fertilizer practice (FFP). SSNM had an average yield of 10.2 t/ha while the farmers' practice had an average yield of 9.0 t/ha. SSNM was higher in yield by 1.2 t/ha over the farmers'

practice. Also, SSNM was higher in profit by PHP12,230 over the farmers' practice.

2. In terms of N fertilizer application, SSNM and FFP used comparable rates of 171 kgN/ha and 169 kgN/ha respectively. However, for P and K application,

SSNM used higher rate than the FFP. SSNM used an average of 47 kg/ha of P and K while FFP used 33 kg of P and 30 kg of K per hectare.

The study covered 21 municipalities in the region - 7 in Pangasinan, 2 in La Union, and 6 each in Ilocos Norte and Ilocos Sur.



*Farmer-cooperators together with the LGU extension workers show-off the result of the ILIARC's research on Site Specific Nutrient Management located in Vigan City, Ilocos Sur.*

## High Value Crops Development Program

### Production Support Services

The program provides quality seeds and planting materials to growers to increase vegetable and fruit production. A total of 894 kilograms of various vegetable seeds, such as eggplant, tomato, squash, upo, ampalaya, pole sitao, water melon and sweet pepper, were procured and distributed. Likewise, 10,000 suckers of banana-saba were provided as an alternative staple food and to uplift the banana industry which suffered a setback due to occurrence of bunchy top.

To develop a seed system for the production of garlic planting materials in the region, the Program provided 70,470 kilograms of garlic to 18 farmer groups/associations in Ilocos Norte and Ilocos Sur, the major producing

provinces in the country. In support to the *Gulayan sa Paaralan* Program, 615 schools, 554 primary and 61 secondary - were provided with open-pollinated variety (OPV) seeds, organic fertilizers, seedling trays, and trainings. The program aims to promote vegetable production through natural farming, and serves as food basket to sustain supplementary feeding in schools, and promote family food security. Fifty (50) per-

To ensure efficient farm production activities, farm machineries and equipment such as one (1) unit of 4-wheel drive tractor, 36 units of hand tractors, 100 power sprayers and 600 knapsack sprayers were procured and provided to 765 farmers associations under the Farm Mechanization Program. Also, 40 draft animals with small farm implements such as plow, harrow and cart, were distributed.



*Seedling trays and organic fertilizers were distributed to public and private schools Regionwide to support the HVCDP's Gulayan sa Paaralan Program. In La Union, Ms. Imelda Cornes (in green shirt) together with La Union's Provincial Agriculturist, Ms. Imelda Sannadan (2nd from right) turn-over these inputs to the DepEd's Regional Office representative.*

## Market Development Services

To explore other market of high value crops outside Region I, the Agribusiness and Marketing Assistance Division (AMAD) conducted a market reconnaissance for shallot and onion in other regions. Another one was conducted in China where Ms. Edith Dacuycuy of Ilocos Norte, a National *Gawad Saka* Outstanding High Value Crops Farmer Awardee, was assisted for her dragon fruits.



*Region I is the 2nd major supplier of shallot onion in the national market. As such, ninety percent (90%) of the total export of onion came from Ilocos Norte and Ilocos Sur, specifically in the towns of Badoc, and Pagudpud in Ilocos Norte as well as in Sinait, Ilocos Sur.*

The AMAD also conducted investment opportunity seminars benefiting 100 mango, banana and indigenous vegetable growers to augment their income through value adding activities or product transformation. Likewise, a training on Good Manufacturing Practices (GMP) and Hazard Analytical and

Critical Control Point (HACCP) was conducted through the assistance of the Bureau of Agricultural and Fisheries Product Standards (BAFPS) which was participated by 50 agri-fishery entrepreneurs. Also, the Short Message Service (SMS) blasting was launched, one of the features of e

-trading thru short messaging system to stakeholders enrolled under the project.

A total of Php300,000 sales was generated during the participation of local and national trade events featuring the region's fresh and processed products.

## Irrigation Development Services

This year, one solar irrigation system was established in Ilocos Norte Provincial Center, Batac City, Ilocos Norte. This system is a pumping facility driven by solar energy, which consists of a solar pumping inverter and a pump.



*Left photo is the solar irrigation system established in INPC Batac, Ilocos Norte. (Right photo) The water generated by the system is used to irrigate the corn planted by the Center especially during summer.*

## Other Infrastructure and Post Harvest Development Services

One onion hanger storage was funded and bidded this year, to be constructed on CY 2013 in Mariano

Marcos State University (MMSU), Batac City, Ilocos Norte. This hanger storage facility aims to prolong and

maintain the quality of onions, to command higher price.

## Extension Support, Education and Training Services

The regional vegetable and mango roadmaps in Region 1 were crafted in coordination with the different stakeholders. This is to set the directions and the specific interventions to be provided considering that the region provides 30-40% of locally produced tomato, eggplant, mungbean, peanut and mango to the national production. On the other hand, a total of 2,000 IEC reading materials were produced and distributed to the farmers and LGUs as part of the advocacy campaign for organic fertilizer making, Gulayan sa Paaralan, and mushroom production.



*Left photo shows some of the IEC materials produced and distributed by RAFID to the HVCC farmers through the LGU extension workers. (Above photo) Regional HVCCP Coordinator, Mr. Angel Padilla facilitates the workshop in preparation for the crafting of the Regional Roadmap on Vegetables.*



## Livestock Banner Program

### Production Support Services

Under the Unified National Artificial Insemination Program (UNAIP), 7,316 frozen semen of genetically superior cattle, buffalo and goat were provided producing 2,027 calf drop (Table 10). For the Animal Health Services, a total of 64,075 doses of drugs and biologics were distributed for vaccination against blackleg, hemorrhagic septicemia and hog cholera among livestock; rabies for canine; and fasciolosis for goat.

Due to infestation of fasciolosis (parasite) in the nucleus farm in Sual, Pangasinan that maintains and produces breeder goats and sheep it was converted into a duck production to break the cycle of the parasite. The farm, currently maintains 240 heads of Muscovy and Mallard ducks. The multiplier farm in Ilocos Integrated Agricultural Research Center (ILIARC) Satellite Station (ISS) III, Sta. Barbara, Pangasinan was also converted to Semen Processing and Distribution Center which produced fresh swine semen bottles and frozen goat semen straws for artificial insemination. On the other hand, the multiplier farm in the Agribusiness Demonstration Project (ADP) in San Ildefonso, Ilocos Sur was reverted to the Municipal LGU due to the nullity of the usufruct. The multiplier farms in ISS1, Dingras, Ilocos Norte and ILIARC, Bacnotan, La Union maintained 31 heads of breeder goat and 11 breeder cattle. Of these, 21 heads of goat and 5 heads of cattle were already distributed to 26 livestock raiser individuals and groups.

To support the rural-based organization in the region, the program provided livestock and poultry projects to livestock raiser cooperatives/associations under the DA existing loan scheme. For the province of

**Table 10. Production support services provided under the Livestock Program.**

Province	UNAIP		Animal Health Services	
	Frozen Semen (AI)	Calf Drop	Drugs and Biologics	Animal Vaccinated
Pangasinan	1,780	486	38,445	136,252
La Union	1,200	410	6,408	46,752
Ilocos Sur	1,560	168	9,611	60,089
Ilocos Norte	2,776	963	9,611	48,777
<b>Total</b>	<b>7,316</b>	<b>2,207</b>	<b>64,075</b>	<b>291,870</b>

Pangasinan, 9 heads of bucks and 2 modules of goat were loaned out (one module consists of one buck and 20 does). Likewise, 4 heads of bucks and one module of goat were loaned out in Ilocos Sur, while 4

Backyard Poultry Program for Womenfolk and Goat Production Program for Farmer Livestock School (FLS) Graduates amounting to PhP800,000. A total of 120 heads of cockerels and 700 pullets, which served as genetic material in upgrading the productivity of backyard poultry raising, were purchased and distributed to 80 members. Furthermore, 9 heads of buck and 90 does were also distributed to upgrade quantity and quality of backyard goat population. Moreover, one head of draft carabao, one ram and 4 ewes were provided to identified recipients in Bagulin and Ago, La Union with a total value of PhP90,000.00.

In support to ABONO Partylist, the program granted the purchase of 400 heads of doe and 20 bucks for the goat dispersal livelihood assistance to generate additional income and increase goat population in Balungao, Pangasinan.



*RTD Eduardo Gonzales turns-over the animal modules to the Provincial Veterinarian of La Union, Dr. Nida Gapuz.*



*The goat animal modules were distributed to the FLS-IGM graduates of La Union after having been through the 8-week training course conducted by the Livestock Program.*

heads of buck were given to La Union.

As committed by Sec. Proceso J. Alcala to the Province of La Union in one of his visits, the program supported the

## Extension Support, Education and Training Services

The program supported and rendered technical assistance in the conduct of 14 Farmer Livestock School (FLS) on Integrated Goat, Swine, Cattle and Poultry Management benefiting 356 livestock raisers. The FLS is a 28-week training course exposing livestock and poultry raisers to practical learning on the modern production technologies to lessen disease and mortality rate, improve and upgrade the breeder base, develop a good housing, and to increase meat sufficiency. Also, a training of Trainers (TOT) was conducted benefiting 38 livestock technicians regionwide to broaden their knowledge and learn new technologies to be applied in conducting FLS.

In the observance of the Rabies Awareness Month and World Rabies Day, the DA-RFU I in collaboration with LGU-Pangasinan, LGU Sta. Barbara and Alaminos City, Pangasinan, and Bantay, Ilocos Sur, conducted a dog fun match show. Rabies vaccination, information campaigns such as distribution of IEC materials and radio interviews, and slogan and poster making contest were simultaneously conducted.

The program also conducted technical updates to LGU Implementers on emerging and re-emerging diseases to keep them competent and familiar to diseases endemic in their respective municipality. There

were 12 livestock-based technology farms established in the 12 districts regionwide to showcase new livestock and poultry production/raising technologies.

In support to Gender and Development (GAD), two modules of goat with corresponding biologics and dewormer were given to two rural-based womenfolk organizations in Palacapac, Candon City, Ilocos Sur, and Cares RIC, Pugo, La Union. Likewise, the sunflower production in ISS IV, Sual, Pangasinan was also established as a source of nectar to support honey production, thus showcasing for alternative livelihood for women.

The Philippine Animal Health Information System (PhilAHIS) continued its operation in the 4 provinces and 32 municipalities in the region. This system enhances the animal disease information management capability and provides standard, timely and quality information through the use of automated data. A training on data cleaning, data validation and briefing using GIS to present output data of PhilAHIS and upgrading of front-end and back-end of the system were conducted.

There were 10,000 IEC materials on rabies, blackleg, UMMB production, and animal pest and disease control and prevention, disseminated to livestock raisers and walk-in clients.



Graduates of the Farmer-Livestock School on Integrated Goat Management (above photo) and the Training of Trainers on FLS-IGCM (lower photo) sponsored by the DA-RFU I Livestock Program.

## Comprehensive Regulatory Services

The Animal Quarantine Services of the Regulatory Division issued a total of 1,423 veterinary clearances/certificates/permits to foreign and local vessels and aircrafts. There were 65 heads of imported goat milking animals quarantined from California, USA.

In support to Animal Welfare Services (RA 8485), 4 commercial farms, 9 petshops and 5 veterinary clinics were registered and accredited.



Lower photo shows the Animal Quarantine officers inspecting the animals that are being shipped in/out in the region. Left photo is the different feeds retailed and inspected.



Under the Feed Control Program (RA 1556), 76 new retailers were registered and 587 establishments were categorized according to the nature of business as follows:

- Mixed feed manufacturer - 7
- Feed ingredient Manufacturer - 1
- Feed distributor/dealer/supplier - 32
- Feed ingredient supplier - 1
- Feed retailers - 722

Under the Veterinary Drugs and Products Control Program, 37 and 340 establishments were registered and renewed, respectively. Also, 783 livestock and poultry handlers and transport carriers were issued with License to Operate (LTO).

## Organic Agriculture (OA) Program

The Republic Act No. 10068 or commonly known as the Organic Agriculture Act of 2010 hereby declared the policy of the state to promote, propagate, develop further and implement the practice of organic agriculture in the Philippines that will cumulatively condition and enrich the fertility of the soil, increase farm productivity, reduce pollution and destruction of the environment, pre-

vent the depletion of natural resources, prevent the depletion of natural resources, further protect the health of farmers, consumers and the general public, and save program for the promotion of community-based organic agriculture systems.

In line with the promotion and development of organic agriculture in Region I, the following activities were undertaken:

### A. Continuing Fund 2012

#### 1. Production and Technology Support

In support to organic rice and vegetable production pilot sites of various LGUs, the following production support (**Table 11**) were distributed benefiting a total of 458 farmers in Region 1:

**Table 11. Organic Agriculture Program production support services/projects**  
By province, Ilocos Region, 2012

Particulars	Allocation				
	Pangasinan	La Union	Ilocos Sur	Ilocos Norte	Total
OPV vegetable seeds (small packets)	201	30	96	30	357
Mungbean seeds (kg)	187	63	79	62	437
Seedling trays (pcs)	431	62	192	68	753
Plastic drums (pcs)	216	29	96	48	389
Knapsack dryers (pcs)	236	64	96	74	470
Foot thresher (unit)	21	4	12	8	45
Vermicompost (bags)	866	101	192	242	1,401
Molasses (kg)	419	63	111	75	668
Compost enhancer (bottle at 1 li)	16	17			33
Vermiworms (kg)	233	63	79	62	137
Weighing scale, 10 kg (units)				3	3
Weighing scale, 60 kg (units)				2	2
Spading fork (pcs)				11	11
Shovel (pcs)				11	11
Carbonizer (unit)				2	2
Tarpaulin (10 pcs/set)	38	11	19	19	87
<b>No. of farmer-recipient of OAP production support services projects</b>	<b>245</b>	<b>63</b>	<b>96</b>	<b>54</b>	<b>458</b>



## B. Regular Fund 2012

For CY 2012, the following key interventions of the program were established:

### 1. Establishment of multiplier farm for livestock and poultry under organic management system (in-conversion) and seed production farms (glutinous corn/legumes/garlic/white potato)

Multiplier farms for organic livestock and poultry production, and seed production farms were established in DA satellite stations in Batac City and Dingras, Ilocos Norte and in Sta. Barbara and Sual, Pangasinan, as follows:

STATION/LOCATION	COMMODITY/IES
ISS I, Dingras, Ilocos Norte	Goat
INPC, Batac City, Ilocos Norte	Rice, legumes and garlic
PPC, Sta. Barbara, Pangasinan	Rice, vegetables/legumes, corn, white potato
ISS IV, Sual, Pangasinan	Native swine and chicken

### 2. Establishment of organic demo and training farm

Existing organic farms were enhanced with provisions of simple farm machineries, tools and equipment, shed for learning sites within the farm, and support for the production of seeds, fertilizers and natural pesticides. These farm will showcase organic farming practices and serve as venue for capacity building of farmers, and other interested groups in organic farming. A total of 12 techno demo and training farms were established in the region (Table 12), five (5) in Ilocos Norte, two (2) in Ilocos Sur, one (1) in La Union, and four (4) in Pangasinan.

**Table 12. Techno demo and training farms in Region I**

Project Location	Commodities	Area (ha)	Proponent
16 Bacarra, Ilocos Norte	Swine, goat and chicken	2.0	LGU-Bacarra
23 Sarrat, Ilocos Norte	Dragon fruit	2.0	LGU-Sarrat
San Marcos, San Nicolas, Ilocos Norte	Vegetable and goat	1.5	LGU-San Nicolas
MMSU, Batac, Ilocos Norte	Rice and vegetable	1.0	MMSU
27 Mamulaan, Paoay, Ilocos Norte	Dragon fruit and white corn	1.0	LGU-Paoay
Cabuloan, Sta. Catalina, Ilocos Sur	Vegetable and chicken	0.5	LGU-Sta. Catalina
Rizal, Santa, Ilocos Sur	Rice, vegetable and sheep	1.0	Santa Federated Farmers Association, Incorporation
2 <sup>nd</sup> Torre, Mangatarem, Pangasinan	Rice, vegetable and livestock	2.0	Lea Astrud Santiago
Sta. Maria, Alaminos City	Rice, vegetable, livestock and fisheries	2.0	Lilia Cacbay
Telbang, Alaminos City	Rice, vegetable and chicken	1.0	One Pangasinan Alliance (OPAL)
Poblacion, Bugallon, Pangasinan	Rice	4.0	San Vicente Sison



*Vermicomposting facility established in ILIARC, Bacnotan, La Union*

### 3. Rehabilitation of vermin-composting facility

One (1) unit of vermin-composting facility was rehabilitated in ILIARC, Bacnotan, La Union

### 4. Strengthening of organic farmers' organizations

Sixty-five (65) members of the One Pangasinan Alliance of LGUs (OPAL) – Likasaka Farmers Association and 45 members of the Agro-Technical Assistance and Livelihood Opportunities in the North (AGTALON) were convened to a seminar workshop to

strengthen further their ties as farmers' organization. Salient provisions of the RA 10068 were presented and the Philippine National Standards on Organic Agriculture was discussed.

### 4. Orientation on organic production technologies

Orientation-briefing and hands-on training on organic farming was held in organic demo farm in 2<sup>nd</sup> Torre, Mangatarem, Pangasinan. This was attended by 500 participants composed of organic farmers, agricultural technologists, municipal agriculturists and other interested farmers. Farm tour to vermin-composting facility, organic rice field, vegetable gardening and livestock raising on native swine and chicken was conducted. Demonstration on how to prepared natural farming inputs such as indigineous microorganisms, fermented fruit and plant juices, oriental herbal nutrient (OH) were undertaken.



## 5. Reproduction and distribution of IEC materials

A total of 1,200 tarpaulins and 4,000 brochures on organic production were reproduced and distributed to all municipalities in the region. Likewise, 4,000 copies of IEC materials in English and Ilocano on organic rice, vegetable production, *Likas Saka* manual, and other recommended farming practices were also produced and distributed.

## 6. Awareness Seminar to LGU executives/officials on OA Act and its IRR

This awareness seminar was conducted to LGU executives/officials being the front liners in the implementation of the OA program. The salient provisions of RA 10068 and principles of OA program were discussed. Also, the creation of Local Technical Committees on Organic Agriculture (LTCOA) and the preparation of OA Plan as part of the Local Development Plan were emphasized.

## 7. Information drive thru radio plugs

Radio plug in the form of a dramatized skit featuring the advantages of organic farming is aired in local radio stations in each of the provinces in the region. This two-minute script is written in Iloco dialect

**Table 13. Number of Local Technical Committees on Organic Agriculture (LTCOA) By province, Ilocos Region, 2012**

Particulars	Province				Total
	Pangasinan	La Union	Ilocos Sur	Ilocos Norte	
Provincial	None yet	1	1	1	3
City/Municipal	40	14	34	20	108
<b>Region</b>	<b>40</b>	<b>15</b>	<b>35</b>	<b>21</b>	<b>111</b>

which is aired three times a day, six days a week. The said radio plug is prepared by the Regional Agriculture and Fishery Information Division (RAFID)

## 8. Facilitation of the creation of Local Technical Committee on Organic Agriculture

In compliance to Section 14 of RA 10068 on the creation of the LTCOA, local chief executives were tasked to form this committee composed of government and non-government agency representatives, farmers, agribusiness sectors, and academe. Out of 129 local governments (125 city/municipalities and 4 provinces) in the region, 120 have already created their LTCOAs (Table 13).

## 9. Workshops on the Formulation of Local Development Plans

In line with the National Organic Agriculture Program's goal to convert 5% of the total land area to

OA by 2016, initial workshop was conducted and attended by municipal agriculturists and OA program focal persons. The annual target area to be converted into organic farming, commodities and volume of production per commodity were discussed. The plans shall be finalized early part of 2013.

## 10. Database/profiling of OA stakeholders / organizations / associations/cooperatives

The profiling of OA stakeholders/organizations/associations/cooperatives was done to establish a directory or listing of organic farmers/practitioners in the region. The said listing was submitted to the Bureau of Agricultural Statistics (BAS) Region 1 for their survey.

## 11. Project monitoring and evaluation

Monitoring and evaluation of the projects established were done regularly by the program management team to gauge the progress of the project activities. This is also the avenue wherein farmer-cooperators and partners from the LGUs give their feedbacks on the issues and constraints they encounter in the course of project implementation. Also, meetings and workshops are conducted to keep project implementers informed of the updates and new directives from the program.



*Regional Organic Focal Person, Ms. Consuelo Belarmino discusses with Ilocos Norte's Provincial and Municipal Organic Coordinators on the salient features of RA 10068 or the Organic Agriculture Program especially on their strategies to implement the program in the province.*

## Development of the Crops and Livestock Sectors

The Soils Laboratory Services analyzed 710 soil samples from R & D projects of the DA and the state, universities and colleges (SUCs) in the region. Also, 114 samples of fertilizer and compost as well as plant tissue were tested for nitrogen, phosphorus and potassium (NPK) analysis. Only 20 water samples were received during the year.

Under Research and Development, a total of 242 parent trees of mango foundation scion grove in the four (4) research stations were already certified parent trees: Lamao in Dingras, Guimaras Experimental Station (GES) 73, 77, 84 and Lamao in Batac, GES 77, 84 and Lamao in Sta. Barbara, and GES 77, 85, 89 in ILIARC. This year, there were **9,000** bud sticks disposed to private nursery operators and station nurseries.

In compliance with the sanitary and phytosanitary (SPS) requirements of plants and plant products, the Plant Quarantine Services issued 1,153 certificates covering 135,415 cartoons and 28,663 bales/boxes of flue-cured Virginia and burley tobacco, 875 small parcel/packs of medicinal plant parts, cigarettes, gravel and sand, and corn seeds totaling 14,240 kilograms. A



*Dr. Florentino Adame leads his staff in doing the necropsy test as one of the major services offered in the Regional Diagnostic Laboratory in Sta. Barbara, Pangasinan.*

total of 115 import permits were issued for bulbs, rhizomes and seeds. For domestic quarantine, 64 permits were issued covering 82,120 metric tons of upland and lowland vegetables including pinakbet vegetables, and 533,000 pieces of assorted planting materials. Likewise, two (2) domestic permits were issued for queenbees including escortbees transported to Cagayan de Oro City.

The region also maintains a feed laboratory, where 691 feed samples were collected and analyzed for the percentage content of crude protein, crude fat, crude fiber, ash and moisture content. The Regional Diagnostic

Laboratory Services conducted confirmatory tests for the following:

- Necropsy - 24
- Rabies examination - 385
- Serological test - 112
- Anti-microbial susceptibility test (AST) - 26
- Fecalalysis - 2,116
- Bacterial isolation - 26

Three (3) forage nurseries were also established to cater to planting material requirements Community-based Participatory Action Research (CPAR) and Rural Enterprise Development 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.

## Station Development Projects

### Ilocos Integrated Agricultural Research Center (ILIARC), Bacnotan, La Union

The station development projects made in ILIARC, Bacnotan, La Union were the following:

1. Establishment of perimeter fencing from the main entrance to the guardhouse and around the training building (300 linear meters), and from the training building up to the staff house area (1,215 linear meter). This is to safeguard the mango trees, newly planted dragon cactus and the mango seedlings from stray animals. Likewise, the fence will safeguard the station



*The perimeter fencing project in ILIARC, Bacnotan, La Union.*



from outsiders/intruders who are often observed to come and go in the staff house area. Fencing was made up of concrete posts and hog wire with barbed wire on top.

2. Rehabilitation of vermicomposting facility. This project is in support to the OA Program which will serve as source of vermicompost fertilizer for use in crop production in the station as well as to cater the needs of nearby communities. To date, the vermished is yet to be completed and the pressure tank is for installation.
3. Establishment of welcome arc. For the DA-ILIARC to have identity, the welcome arc was established in the entrance part of the station
4. Construction of biological control agent (BCA) laboratory. This laboratory, which is operated and managed by the Regional Crop Protection Center (RCPC), aims to accommodate massive production of bio control agents such as earwig (*Euborellia annulata*) and green muscardine fungus (*Metarhizium anisopliae*) due to increasing demand of farmers.
5. Construction of goat growing house. The growing house was constructed to accommodate the growing number of stocks



Vermicomposting facility



Welcome arc



Goat house



BCA laboratory

6. Rehabilitation of deep well and installation of water pump (location-southern part of the road going to Don Mariano Marcos Memorial State University). The deep well is a very important source of water for the station especially during summer time.



The newly rehabilitated deep well and installed water pump in ILIARC, Bacnotan, La Union

### Ilocos Norte Provincial Center/ ISS II for Upland Plain, Batac City, Ilocos Norte

This year, a two-storey administrative building was repaired in Ilocos Norte Provincial Center, Batac City, Ilocos Norte. The Administrative and Finance Offices are located in the first floor, while the Office of the Provincial Center Chief and a mini conference hall with a capacity of 50 participants are situated on the second floor.

Likewise, one operations staff office and one guest house were renovated. The staff office comprises a farmers' lounge or waiting area, and a workplace of the commodity provincial coordinators. The guest house is an annex of the



The newly renovated two-storey administrative building in INPC, Batac, Ilocos Norte..



Operation Office. This serves as rest area for drivers during delivery of agricultural inputs, farm machineries and the like and other office visitors.

A solar pump irrigation system under the High Value Crops Development Program was installed in the station. This system operates through solar energy available from the sun with six solar photovoltaic which can irrigate an area of 1000 sq m in furrow irrigation and 500 sqm



*The right photo shows the newly renovated operations staff office. The center photo is the guest house which is an annex of the operation office. The left photo shows the established solar pump irrigation system project.*

during flooding depending on the soil moisture content.

The center caters the provinces of Ilocos Sur and Ilocos

Norte, and two research stations located in Dingras (ISS I for Lowland Irrigated) and Batac City (ISS II for Upland Plain).

### ISS IV for Hillyland (Organic Agriculture Center) Sual, Pangasinan Pangasinan



*Photos of station development projects in ISS IV, Sual, Pangasinan, namely: 1) newly established chicken house (top left); 2) on-going construction of vermin-chamber under the OAP (top right); 3) rehabilitated vermin-composting facility under the HVCDP (bottom right); and 4) 102 m-concrete access way (bottom left)*

The ILIARC Satellite Station (ISS) IV for Hillyland is located at Sual, Pangasinan covering 225 hectares. For CY 2012, station development projects were as follows:

1. Establishment of chicken house for the production

120 heads of organic Parawakan chicken—20 roasters and 100 hens

2. Construction of vermin-chamber for the production of vermicast and compost under the OA Program

3. Rehabilitation of vermin-composting facility under the

HVCDP

4. Establishment of 102 meters of concrete access way from the station to the watertank (at the top hill) which is used for irrigating high value crops technology demonstrations along hilly areas in the station



5. Construction of small farm reservoir worth PhP240,000 funded under the HVCDP with a service area of 4 hectares. This facility will be used in irrigating vegetable technodemos, mango foundation trees, and other crops such as sunflower plantation for honey bee production.



*The newly constructed SFR in ISS 4 for Hillyland in Sual, Pangasinan*

### **Pangasinan Provincial Center / ISS III for Lowland Rainfed Sta. Barbara, Pangasinan**

The Pangasinan Provincial Center (PPC) is located in Tebag, Sta. Barbara, Pangasinan. The center, which caters the province of Pangasinan and two research stations located in Sta. Barbara (ISS III for Lowland Rainfed) and Sual (ISS IV for Hillyland), has the following accomplishments:

1. Establishment of Rapid Bioassay for Pesticide Residue (RBPR) Laboratory in DA-RCPC Biocon Compound, PPC, Sta. Barbara, Pangasinan. The repair of building for the establishment RBPR laboratory is on-going. The procurement of major equipment and supplies for the analysis are now in the process.
2. Repair of ceiling of the artificial Insemination building. This project is funded by the Livestock Banner Program purposely to improve the facility in the production semen for swine.
3. Establishment of landscaped garden as clean and green project in the station.



*(Top photo) On-going construction of RBPR laboratory of RCPC and (lower photo) the newly-repaired ceiling of the artificial insemination building in Sta. Barbara, Pangasinan (inset photo).*

## IV. RESEARCH AND DEVELOPMENT

### Bureau of Agricultural Research (BAR)-Funded Projects

For CY 2012, 14 research studies funded by the BAR were conducted through the Research and

Development Division of DA-RFU I. These were as follows:

#### A. Completed Projects

Title of Project	Research Highlights
1. Garlic Technology Commercialization in Region I	<ul style="list-style-type: none"> <li>Production technology enhancers were the use of bio-fertilizer, gibberellic acid, farmers' environment-friendly IPM technologies like tibak bark, fish amino, Palmolive shampoo, bio-control agents like metarrhizium and Bacillus thuringiensis, blue sticky trap, and lagundi leaves</li> <li>Garlic processed technologies tested and ready for commercialization to include garlic miki noodles, garlic pickle, garlic flakes, garlic chips and garlic polvoron</li> <li>Garlic processing facility is under construction</li> </ul>
2. Community-based Participatory Action Research (CPAR) on integrated vegetables, rice-corn + goat farming system in San Nicolas, Ilocos Norte	<ul style="list-style-type: none"> <li>Vegetable-corn + goat farming system is feasible in upland ecosystem of San Nicolas, Ilocos Norte</li> <li>Improved technology interventions include:               <ul style="list-style-type: none"> <li>&gt; Integrated Nutrient Management (INM) using biofertilizer, organic and inorganic fertilizers</li> <li>&gt; Integrated Pest Management (IPM) using light trap and biological control agents</li> <li>&gt; Waste management utilization using vegetable rejects and corn residues as feed for goat while goat manure and other crops residues as organic fertilizer for vegetables and corn</li> <li>&gt; Bio-rationals for the control of eggplant fruit borer is to combine effective microorganism + VAM + trichoderma + metarrhizium</li> </ul> </li> </ul>
3. CPAR on integrated rice-corn + corn + goat farming system in San Carlos, Pangasinan	<ul style="list-style-type: none"> <li>Showcased the improved farming system of rice followed by corn and mango</li> <li>Hands-on training on processing of mango rejects and vermicomposting</li> <li>Completed 4 cropping cycles each for dry and wet seasons</li> <li>Established <i>Kambingan sa Barangay</i> located at Barangay Turac managed by the CPAR farmers associations</li> </ul>
4. CPAR on integrated rice-rice-rice + duck farming system in San Gabriel, La Union	<ul style="list-style-type: none"> <li>Showcased the improved farming system in the CPAR site on rice + rice + mallard duck</li> <li>Hands-on training on vermin-composting</li> </ul>
5. CPAR on integrated rice-corn-corn + goat farming system in Sto. Domingo, Ilocos Sur	<ul style="list-style-type: none"> <li>Showcased the improved farming system in the CPAR site on rice-corn-corn + goat farming system</li> <li>Improved technology interventions include:               <ul style="list-style-type: none"> <li>&gt; INM using bio-fertilizer, organic and inorganic fertilizers</li> <li>&gt; IPM using light trap and biological control agents</li> <li>&gt; Waste management utilization using rice and corn residues as feeds for goat; goat manure and other crop residues as organic fertilizer for rice and corn</li> </ul> </li> </ul>

#### B. On-going Projects

Title of Project	Salient Accomplishments
1. Variety evaluation, on-farm, trials and seed production of organic vegetables in Region I	<ul style="list-style-type: none"> <li>Five (5) entries for eggplant, four (4) entries for bitter melon, three (3) entries for hot pepper, two (2) entries for sweet pepper, three (3) entries for table tomato and two (2) entries for cherry type and, three (3) entries for squash were selected for PYT/RYT to be conducted in 2013</li> </ul>
2. Performance and production of native chicken in Luzon (Bolinao Strain- Region I Component)	<ul style="list-style-type: none"> <li>Fifty-five (55) hens and eight (8) roosters were distributed to ten (10) farmer beneficiaries</li> </ul>

Title of Project	Salient Accomplishments
3. CPAR on integrated rice + winged bean-corn- mungbean + cattle fattening farming system in Batac City, Ilocos Norte	<ul style="list-style-type: none"> <li>• Training conducted on corn production technology-organic fertilizer production, record keeping and values information</li> <li>• New project, Memorandum of Agreement (MOA) signing is on-going</li> <li>• Covered 2 barangays, 10 hectares, and 22 farmers</li> <li>• Rice yield posted at 5 mt/ha, higher by 1.0mt/ha of 25% compared to baseline yield</li> </ul>
4. CPAR on integrated rice-corn-corn/ mungbean + cattle fattening farming system In Sto. Domingo, Ilocos Sur	<ul style="list-style-type: none"> <li>• New project, covers 4 barangays, 20 hectares and 20 farmers</li> </ul>
5. CPAR on integrated rice-rice-mungbean + cattle fattening farming system in Laoag City, Ilocos Norte	<ul style="list-style-type: none"> <li>• New project, covers 2 barangays, 10 hectares and 20 farmers</li> </ul>
6. Development of commercial organic soybean production in Region I	<ul style="list-style-type: none"> <li>• Covered a total area of 17.6 hectares, of which, 10.8 hectares were planted in Ilocos Sur</li> </ul>
7. Advance yield trial on organic soybeans production in Region I	<ul style="list-style-type: none"> <li>• <i>Tiwala</i> 8 performed best in La Union with a yield of 2.02 mt/ha; in Ilocos Sur and Ilocos Norte, it yielded 0.93 mt/ha and 1.53 mt/ha, respectively</li> </ul>
8. Site Specific Nutrient Management (SSNM) for white corn in Ilocos Norte	<ul style="list-style-type: none"> <li>• Fertilizer recommendation of glutinous white corn for further verification: <ul style="list-style-type: none"> <li>◇ Farmers' variety—40-75-75 kg NPK/ha—6.5 mt/ha</li> <li>◇ Improved OPV—140-65-65 kg NPK/ha —6.5 mt/ha</li> </ul> </li> </ul>
9. Good Agricultural Practices (GAP) for mango	<ul style="list-style-type: none"> <li>• Certification in process for one GAP-compliant farm in Iba, Zambales</li> </ul>

## Agency Funded Research

Six (6) research studies (on-going) were funded under the Regular Fund of DA-RFU I for CY 2012. Salient accomplishments were as follows:

Title of Project	Salient Accomplishments
1. Comparative effect of combined used of inorganic, organic and bio-fertilizer on corn yield and soil fertility status	<ul style="list-style-type: none"> <li>• The project aimed to assess the effect of inorganic, organic and bio-fertilizer on the yield of corn and soil fertility status</li> <li>• Experimental design is RCBD with 2 sets of treatments (bio-fertilizer and organic fertilizer)</li> <li>• Established in 3 sites (San Nicolas and Batac City Ilocos Norte, and Sto. Domingo, Ilocos Sur)</li> </ul>
2. Performance evaluation of garlic cultivars for Ilocos condition	<ul style="list-style-type: none"> <li>• The project aimed to evaluate the performance of garlic cultivars in terms of agronomic characteristics and yield, and to recommend site specific varieties for Ilocos condition</li> <li>• Nine varieties were evaluated and still at their vegetative stage</li> </ul>
3. Development and evaluation of Innovative Goat-based Enterprise as a sustainable community livelihood	<ul style="list-style-type: none"> <li>• Among the 3 allied goat enterprises, the buck for hire is the most acceptable and practices by cooperators</li> <li>• There is an increased in birth weight from 1.2 to 2.5 kg</li> <li>• Gathering of other data is still on-going</li> </ul>
4. Development and evaluation of indigenous formulated diets for native chicken	<ul style="list-style-type: none"> <li>• Established in PPC, Sta. Barbara, Pangasinan</li> <li>• Prepared experimental fortified diets for starter, grower and finisher mash with no inclusion of growth hormones and antibiotics</li> <li>• Propagated protein enriched forages as part of the feed supplements</li> </ul>



Title of Project	Salient Accomplishments
<p>5. Verification and improvement of the production technology of dragon cactus</p> <p><b>Study 1:</b> Growth and yield response of dragon cactus on organic and inorganic fertilizer rates and time of application</p> <p><b>Study 2:</b> Agronomic and yield performance of dragon cactus as affected by pruning method and strategies</p> <p><b>Study 3:</b> Growth performance of stem cuttings and use of potting medium for dragon cactus production</p>	<ul style="list-style-type: none"> <li>The project aimed to improved the package of technology (POT) of dragon fruit production on fertilization and pruning methods and strategies</li> <li>Established at INPC, Batac City, Ilocos Norte</li> <li>Activities undertaken were fertilizer application, vine training/tying of branches, pest control and watering, data gathering and observation</li> </ul>
<p>6. Updating component technologies for off-season mango production</p> <p><b>Study 1:</b> Comparative effect of CaNO<sub>3</sub> and KNO<sub>3</sub> on flowering of mango</p> <p><b>Study 2:</b> Effects of paclobutrazol application on off-season mango production</p>	<ul style="list-style-type: none"> <li>Rate of application is 3% for both CaNO<sub>3</sub> and KNO<sub>3</sub>; effect of flowering is comparable, however, fruits for the set-up last September and November was attacked with Cecid fly which casues fruits to fall in Bacnotan, La Union</li> </ul>

## V. OTHER PROGRAMS AND PROJECTS

### Farm-to-Market Roads

In order to facilitate more efficient logistical distribution of agricultural goods and services, a total of 130 projects of farm-to-market roads (FMR) worth Php162.46 Million were funded this year. Of the total FMR projects, 86.92% or 113 sites were already constructed. The remaining 17 projects will be constructed in 2013.



Table 12. FMR projects in Ilocos Region, 2012.

Province	No. of Projects	Length (km)	Cost (Php'000)
<b>First Trance</b>	<b>5</b>	<b>3.369</b>	<b>25,460</b>
<b>Pangasinan</b>	<b>3</b>	<b>2.494</b>	<b>20,000</b>
District 1	1	0.594	10,000
District 2	2	1.900	10,000
<b>Ilocos Norte</b>	<b>2</b>	<b>0.875</b>	<b>5,460</b>
District 1	1	0.075	460
District 2	1	0.800	5,000
<b>Second Trance</b>	<b>32</b>	<b>6.489</b>	<b>34,000</b>
<b>Pangasinan</b>	<b>19</b>	<b>3.854</b>	<b>20,000</b>
District 1	1	0.085	500
District 2	3	1.030	3,500
District 3	14	2.700	15,000
District 4	1	0.039	1,000
<b>La Union</b>	<b>10</b>	<b>2.130</b>	<b>12,000</b>
District 2	10	2.130	12,000
<b>Ilocos Norte</b>	<b>3</b>	<b>0.505</b>	<b>2,000</b>
District 1	2	0.305	1,000
District 2	1	0.200	1,000
<b>Third Trance</b>	<b>93</b>	<b>18.200</b>	<b>103,000</b>
<b>Pangasinan</b>	<b>75</b>	<b>13.896</b>	<b>62,000</b>
District 3	26	5.653	20,000
District 4	37	4.819	27,000
District 6	12	3.424	15,000
<b>La Union</b>	<b>3</b>	<b>1.296</b>	<b>10,000</b>
District 1	3	1.296	10,000
<b>Ilocos Sur</b>	<b>12</b>	<b>2.168</b>	<b>28,000</b>
District 1	5	2.168	9,500
District 2	7	2.872	18,500
<b>Ilocos Norte</b>	<b>3</b>	<b>0.840</b>	<b>3,000</b>
District 2	3	0.840	3,000
<b>TOTAL</b>	<b>130</b>	<b>28.058</b>	<b>162,460</b>

## Municipal/Barangay Food Terminals

The Food Terminal Project (FTP) is a 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 and fishery food products from the producers to be sold on a wholesale and/or retail basis, at a price lower than the prevailing wholesale and retail 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.



*On-going construction of MFT project in Sta. Catalina, Ilocos Sur*

**Table 14. M/BFT projects established in 2012.**

Location of the Project	Project Cost	Operator
Poblacion, Mangataram, Pangasinan	P800,000	LGU Mangataram
Poblacion, Sinait, Ilocos Sur	P1,200,000	LGU Sinait
Poblacion, Sta. Catalina, Ilocos Sur	P500,000	LGU Sta. Catalina
Biday, San Fernando City, La Union	P4,500,000	LGU San Fernando City

For CY 2012 there are five (5) FTPs funded in Ilocos Region. Among this 5 FTPs are 1 Barangay Food Terminal (BFT) and 4 Municipal Food Terminal (MFT).

The BFT is located in Brgy. San Marcelino, Dingras, Ilocos Norte with P350,000 project cost composed of trading capital, construction of building and purchase of marketing equipment. The proponent and operator of the project is the San Marcelino Brgy. Council. Table 13 showed the location of the 4 MFT projects with the corresponding funding and operators.

## Livelihood Enhancement for Agricultural Development (LEAD) Program

A total of Php 125,565 of loans were collected from the different beneficiaries of LEAD projects this year (Table 15). All collection came from the province of

Ilocos Sur covering goat and swine fattening project. The collected amount 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.

**Table 15. Loan collections under the livelihood enhancement for agricultural development.**

Proponent	Address	Name of Project	Amount Collected (PhP)
Tapao FA	Tapao, Sinait, Ilocos Sur	Goat Raising Project	18,540.00
GMAP Salapasap	Salapasap, Cabugao, I. Sur	Goat Raising Project	15,500.00
GMAP Baracbac	Baracbac, Sinait, I. Sur	Goat Raising Project	5,500.00
GMAP Dadalaquiten	Dadalaquiten, Sinait, Ilocos Sur	Goat Raising Project	2,000.00
Fed. RIC G. del Pilar	G. del Pilar, Ilocos Sur	Swine Fattening Project	54,025.00
Cadanglaan FA	Cadanglaan, Sinait, I. Sur	Goat Raising Project	10,000.00
GMAP Quibit-quibit	Quibit-quibit, Sinait, I. Sur	Goat Raising Project	8,000.00
GMAP Bulbulala	Bulbulala, Santiago, I. Sur	Goat Raising Project	4,000.00
Macabiag FA	Sinait, Ilocos Sur	Goat Raising Project	8,000.00
<b>TOTAL COLLECTION</b>			<b>125,565.00</b>

## Agrikultura Kaagapay ng Bayang Pinoy (AKBay)

The *Agrikultura Kaagapay ng Bayang Pinoy (AKBay)* Program 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.

In 2011, the Regional Agricultural and Fishery Council awarded 209 projects in the nine

(9) municipalities of the Province of La Union amounting to P2,090,000.00 wherein a farm household was given P10,000.00 each. To complete the program, this year another P2,310,000.00 was awarded to 231 qualified farmhouseholds in the same municipalities (Table 16).

**Table 16. Akbay program recipients, 2012.**

Municipality	No. of Farmer Household Benefitted	Amount Released (PhP)	Name of Project
Municipality of Tubao	26	260,000.00	Swine Fattening Proj. - 26
Municipality of Pugo	26	260,000.00	Goat Production Proj. - 4 Swine Fattening Proj - 22
Municipality of Santol	25	250,000.00	Swine Fattening Projects (Mestizo) - 25
Municipality of Sudipen	26	260,000.00	Goat Raising Proj. - 1 Small Farm Implement - 1 Swine Fattening Proj. - 24
Municipality of Burgos	26	260,000.00	Swine Raising Project - 19 Softbroom Making Proj.- 7
Municipality of Bagulin	26	260,000.00	Softbroom Making - 25 Buy & Sell Dried Fish - 1
Municipality of Sto. Tomas	26	260,000.00	Goat Production Proj. - 14 Siganid Culture Proj. - 1 Buy & Sell (fish) - 4 Buy & Sell (vegetables) - 5 Buy & Sell (fruits & Veg) - 1 Swine Fattening Proj. - 1
Municipality of Caba	25	250,000.00	Swine Fattening Proj. - 25
Municipality of San Gabriel	25	250,000.00	Buy & Sell (softbroom) - 4 Broiler Production Proj.- 2 Poultry Layer Raising Project for Egg Production - 19
<b>TOTAL</b>	<b>231</b>	<b>2,310,000.00</b>	



Family households from La Union receive from DA officials their checks worth P10,000 each as a recipient of the NAFC's Akbay Program in a ceremonial awarding ceremonies held in Tubao and Santol, La Union. The project aims to help the marginalized families augment income towards improving their living conditions.



## Regional Agricultural and Fishery Council (RAFC)

The Agricultural and Fishery Council (AFC) is tasked to assist the DA in monitoring, mobilizing and evaluating the contributions/interventions of the government agencies to agriculture and fishery modernization. For 2012, the Council monitored production, irrigation, and post-harvest facilities/equipments and machineries of the Banner Programs. Specifically, hereunder were the monitored projects:

### Rice Banner Program

- 23 units of rice threshers
- 23 units of rice reapers
- 68 units of hand tractors
- 8 units of 4-WD tractors
- 26 units of MPDPs

### Corn Banner Program

- 3 village type corn processing centers
- 2 units of 4-WD tractors
- 31 units of pump and engine sets

### HVCD Program

- 14 units of hand tractors
- 21 draft animals

### Livestock Banner Program

- 45 heads of swine under CLEEP Projects
- 20 heads of swine multiplier farm projects
- 7 heads of goat multiplier farm projects
- 10 heads of sheep multiplier farm projects



*To ensure that projects are delivered in the most efficient ways possible, Regional and Provincial AFC officers has been a constant partner of DA-RFU I especially in monitoring the projects being implemented.*

In celebration of the AFC 25th Anniversary, the Council in Region I conducted a coastal clean-up, motorcade and a short program in Lingayen, Pangasinan on May 15, 2012.

On November 21 and 22, 2012, a culmination celebration was conducted at the Nueva Segovia Consortium of Cooperatives, Caoayan, Ilocos Sur. The two-day activity focused on the awarding of dedicated volunteer leaders and AFC partners who sacrificed and shared their time, talents and treasures to the Council and showcased remarkable contributions to the AFCs throughout the years.



*National Agriculture and Fishery Council Director, Ariel Cayanán (at the center first row) joins the Region I's AFC officers and supporters in celebrating the AFC's Silver Anniversary. For 25 years, AFC volunteer leaders never cease to help DA in ensuring that agri-fishery projects are efficiently implemented for the*

## Gender and Development (GAD) Program

The DA RFU-I GAD Focal Point System (FPS) provided four (4) goat production modules to two (2) groups of rural women as alternative livelihood. The women's groups are the Tavora Proper RIC in Pugo, La Union and the Palacapac Women's Group in Candon City, Ilocos Sur. The goat modules were delivered to the recipients last December 14, 2012 and December 19, 2012, respectively. The goat modules were given free but the recipients had to put up their equities in the form of housing, pasture and forage production area with perimeter fence and manpower to provide labor in the care and maintenance of the goats.

As a matter of inculcating that the goat modules must be sustained, drugs and biologics were provided to both recipient women's groups making available some initial inputs to prevent pests and diseases to the goats provided them. The recipients are required to provide drugs and biologics equity the moment the drugs and biologics provided have been consumed. These drugs and biologics will be available within the 1<sup>st</sup> quarter of CY 2013, in time for the conduct of Farmer's Livestock School/Integrated Goat Management (FLS/IGM) Training for the women-beneficiaries.

The GAD FPS joined inter-agency GAD advocacy activities such as Funwalk and Forum initiated by RAGE-I (Region I Advocates of Gender Equality) as initial activity in the observance of the Annual Women's Month Celebration as well as the mangrove planting in Dalumpinas Este, City of San Fernando initiated by



*In the observance of the Annual Women's Month celebration, DA-RFU I regularly sends its employees to join the fun walk activity sponsored by the Region I Advocates of Gender Equality.*

BFAR.

The GAD FPS Coordinator also attended emergency meetings of RAGE-I and the national quarterly meeting of DA GAD FPS Coordinators initiated by the GAD FPS of the DA Central Office.

It was also in CY-2012, first time for DA RFU-I to have fielded its nominee in the person of Ms. Angelita Wagayen of Palacapac, Candon City, Ilocos Sur, to the Search for DA Outstanding Rural Women. While Ms. Wagayen was not lucky to have bagged the top plum in the national search for the year, DA Secretary Proceso J. Alcala awarded her a carabao and a plow, just like the other nominees from DA RFUs whose bets did not make it to the top. As the region's CY 2012 Most Outstanding Rural Woman, Ms. Wagayen received from DA RFU-I a trophy and cash prize of P30,000 and the talent scout received P15,000 during the Gawad Saka Awarding last October 30, 2012 held in Nueva Segovia Cooperative Consortium in Caoayan, Ilocos Sur.

Twenty-two (22) women personnel

of the DA RFU-I who are mostly operating unit heads were sent to be trained on Basic Vehicle Maintenance, Troubleshooting and Repair at TESDA Regional Training Center-I for five (5) Saturdays the period inclusive from 17 November to 15 December 2012. The training was conducted to empower the participants and decrease their dependence on the male factor in terms of vehicle maintenance, troubleshooting and repair though very basic.

The DA RFU-I GAD FPS has also lined up the cultivation of sunflower in portions of the abandoned forage production area research station in Sual, Pangasinan to serve as source of nectar for the rearing of honey-bee for the production of honey as source of alternative livelihood for rural women. The sunflower farm and the honey production will first be established as a showcase. Sunflower cultivation and honey production will continue through the years. It will eventually be the immersion site of rural women interested in venturing into honey production as a means of livelihood.



## V. AGRICULTURAL ACHIEVERS

### Gawad Saka Search

Region I bagged **two (2) National Awards** for the Gawad Saka Search this year. The Gawad Saka Search aims to empower and give due recognition to farmers, fisherfolks, and RBOs for their remarkable achievements in agricultural development. The national awardees were as follows:

#### 1. Mr. Ricarte J. Corpuz—Outstanding Hybrid Rice

Mr. Corpuz is a 64 year-old farmer, married with only one child and presently residing at Bgy. Madiladig, Laoag City, Ilocos Norte.

Mr. Corpuz held the position of Bgy. Chairman for 18 years. He is a consistent manager of a multi-millionaire cooperative of their barangay, the Madiladig Multi-purpose cooperative.

A farmer since childhood, he never failed to attend various seminars, trainings and workshops conducted by the Department of Agriculture. These enhanced and updated his technical know-how in agriculture, as he completed the Training Course on Rice Production in 1981 which qualified him as *Barangay Technician*.

He always employ the knowledge he acquires. He practices three croppings per year. His productivity for hybrid rice in 2011-2012 is as

follows:

- 1<sup>st</sup> cropping – 240 cavans per ha.
- 2<sup>nd</sup> cropping – 245 cavans per ha.
- 3<sup>rd</sup> cropping – 200 cavans per ha.

He made farming as a business enterprise - from production to marketing. Aside from being a hybrid rice farmer, he also raises cattle, swine, corn and the like. He owns several hectares of lands, some of which had been donated to organizations like the RIC and the Bgy. Council. With farming and entrepreneurship, he was able to acquire additional properties like large vast of lands, farm equipment and vehicles.



*2011-2012 National Outstanding Hybrid Rice Farmer, Mr. Ricarte Corpuz during the National Awarding Ceremonies held at Philippine Rice Research Institute at the Science City of Munoz, Nueva Ecija on November 13, 2012. The awarding ceremonies was graced by no less than Department of Agriculture Secretary, Proceso Alcala.*

#### 2. Mr. Francisco Alex Dani Pasion - Outstanding Large Animal

Mr. Pasion is a 35 year-old large animal raiser of Bgy. Santiago, Marcos, Ilocos Norte. He started engaging in farming enterprise with a small piece of land and a single animal to raise. Because of his aggressiveness in adopting modern farming technologies, he was able to increase the number of animals he raised and acquired additional parcel of land for farming.

He undergone trainings in Basic Artificial Insemination and *Pregnancy Diagnosis in Water Buffaloes* for one month prior to the launching of the *Expanded Artificial Insemination Program* in 2005. With the skills, knowledge and attitude he gained, he is not only making good for his family but the community as well. His active involvement in the community, in the church and his very satisfactory perform-

ance in the upgrading of large animals had made him somebody in the municipality and the province.

At present, he is no longer a participant to trainings, but already a competent trainer for large animals covering all aspects of production and processing. He is the *Chairman of the Ilocano Artificial Inseminators Credit Cooperative*



and holds high positions in other rural-based organizations where he unselfishly shares and transfers technologies to the members.

He is also an extension service provider who works hand-in-hand with the LGU in rendering free technical services and a minimal service fee for his AI services in the municipality.

At the regional level, twelve (12) Regional Gawad Saka Awardees were recognized during the Gawad Saka Awarding Ceremony held on October 30, 2012 in Nueva Segovia Consortium Cooperative (NSCC) Function Hall, Caoayan, Ilocos Sur. The ceremony was attended by

about 200 participants with Assistant Secretary Edilberto de Luna as the Guest of Honor and Speaker. Leading this year's awardees were in the province of Ilocos Norte with 67% contribution or 8 awardees, followed by Pangasinan with 2 awardees, and one (1) each in La Union and Ilocos Sur (Table 17). Regional individual and group winners were awarded each with Php30,000.00 and Php50,000.00 cash prizes, respectively, and a plaque of appreciation, while Php15,000.00 each were given to their respective talent scouts. Also, an amount of Php5,000.00 and a certificate of recognition were given to the special citation awardee.



*Mr. Alex Dani Pasion from Marcos Ilocos Norte is this year's Gawad Saka National Outstanding Large Animal Raiser.*



*Gawad Saka Regional winners from the province of Ilocos Norte flank with ASEC Edilberto de Luna, the National Corn Program Director and National Gawad Saka Coordinator who served as the Guest of Honor and Speaker during the successfully concluded Regional Gawad Saka Awarding Ceremonies held at the Nueva Segovia Consortium of Cooperatives in Caoayan, Ilocos Sur. With the awardees and ASEC de Luna are DA officials headed by OIC-RED Valentino C. Perdido and Regional Technical Director for Research and Regulation, Engr. Eduardo Gonzales.*

**Table 17. Regional Gawad Saka Winners, 2012.**

Category	Awardee	Address
Outstanding Hybrid Rice Farmer	Mr. Ricarte Corpuz	Madiladig, Laoag City, Ilocos Norte
Outstanding Integrated Rice-Based Farming Systems	Mr. Dominador Orpilla	Buciao, San Gabriel, La Union
Outstanding Corn Farmer	Mr. Pedro Bartolome	Laoag City, Ilocos Norte
Outstanding High Value Crops Farmer	Mr. Marcelo de Peralta	Casilagan Sur, Banayoyo, Ilocos Sur
Outstanding Large Animal Raiser	Mr. Francisco Alex Dani Pasion	Santiago, Marcos, Ilocos Norte
Outstanding Small Animal Raiser	Mr. Ronnel Pascual	Cabisuculan, Vintar, Ilocos Norte
Outstanding Small Farmer Fisherfolk Organization	Bacarra Zanjera Irrigators MPC	Vintar Road, Bacarra, Ilocos Norte
Outstanding Barangay Food Terminal	Pagal Bliss Food Terminal	Pagal, San Carlos City, Pangasinan
Outstanding Young Farmer	Mr. Emerson Tabios	Cataguin, San Nicolas, Ilocos Norte
Outstanding Provincial Head/Provincial Agriculturist	Ms. Norma Lagmay	Office of the Provincial Agriculturist (OPAg), Laoag, Ilocos Norte
Outstanding Municipal Head/Municipal Agriculturist	Engr. Cornelio Balbesino	Office of the Municipal Agriculturist, Dingras, Ilocos Norte
Outstanding Agricultural Extension Worker	Ms. Emily Lucero	Office of the Municipal Agriculturist, Urdaneta City, Pangasinan
<b>Special Citation</b>		
Outstanding Rural Improvement Club (RIC)	Suksukit RIC	Suksukit, Sto. Domingo, Ilocos Sur

## Agri-Pinoy Rice Achievers' Award



Pangasinan Governor Amado Espino together with Vice Governor Ferdinand Calimlim (left photo) and La Union Board Member Joseph Ostrea and PA Imelda Sannadan receive from DA top officials headed by Secretary Proceso Alcala their trophies for being the country's top performing province when it comes to rice production. Assisting the Secretary in handling over the trophies are USEC Joel Rudinas and ASEC Dante de Lima.

The **Agri-Pinoy Rice Achievers' Awards** aims to encourage the full participation of LGUs, Irrigators Associations (IAs), Small Water Impounding Systems Associations (SWISAs), and Outstanding Agricultural Extension Workers (AEWs) involved in the production of rice and thus attain national rice self-sufficiency in the shortest possible time; to identify and give recognition to the top performing LGUs, IAs, SWISAs, and AEWs of the rice industry; and to sustain awareness, support, and commitment of the LGUs

and other stakeholders to the DA National Rice Self-Sufficiency Program (RSSP).

A total of P110 million (M) in prizes in the form of projects and incentives were given to the winners. They are composed of the top ten provinces that will each receive a P4M project grant, 48 municipalities and cities (P1M project each), 10 IAs (P1M project), three small water impounding systems associations or SWISAs (P500,000-project),

and 500 AEWs (P20,000-incentive cash each).

The top provinces, towns and cities, IAs, and SWISAs were chosen based on the following: incremental rice harvest and average yield per hectare over 2011 levels, increase if any over 2012 target, amount of budget devoted to rice projects and initiatives, number of farmers benefited, and degree of rice seed utilization, among other criteria.



## Outstanding Municipalities

- ◆ Bacnotan, La Union
- ◆ San Juan, La Union
- ◆ Sudipen, La Union
- ◆ Manaoag, Pangasinan
- ◆ Sta. Maria, Pangasinan

## Outstanding Provinces

- ◆ Pangasinan
- ◆ La Union

## Outstanding AEWs

## Outstanding AEWs

## Province of La Union

1	Abengona, Jovita	AT, San Juan
2	Dollente, Francisco	MA, Agoo
3	Flora, Aurelio	MA, Naguilian
4	Galleto, Jerome	AT, San Fernando City
5	Guerrero, Geronima	AT, Luna
6	Guinomma, Margarita	MA, San Juan
7	Gundran, Andrew F.	AT, Naguilian
8	Laroya, Modesto	MAO, Tubao
9	Llarenas, Eulalia	MA, Bacnotan
10	Lumabas, Hector	AT, Rosario
11	Mostoles, Marilou A.	AT, Sudipen
12	Paculan, Letecia	OIC-MAO, Pugo
13	Pang-ot, Catalina	MA, Sudipen
14	Picazo, Myrna	Rice Prog. Coordinator
15	Pintor, Adelaida	AT, Tubao
16	Quiros, Rizalina	OIC-MAO, San Gabriel
17	Sabado, Rebecca	MA, Bauang
18	Sannadan, Imelda	PA
19	Oriente, Editha	MAO, Santol
20	Villanueva, Samuel	AT, Agoo

## Province of Pangasinan

1	Alamar, Jovelito	AT, Malasiqui
2	Albrecht, Romana	AT, Urdaneta City
3	Aradanas, Edna	AT, Rosales
4	Balderas, Carmenchita	AT, Infanta
5	Baltero, Irma	AT, Sta. Maria
6	Basuel, Mila	AT, Bugallon
7	Canilang, Lilia	AT, Mangatarem
8	Capua, Nancy	AT, Sta. Barbara
9	Frianeza, Ronna	District Coordinator, D-I
10	Geronimo, Virginia O.	AT, Manaoag
11	Marcelo, Raul	AT, San Carlos
12	Natividad, Demetria	AT, Sual
13	Ogbinar, Rosa	AT, Mapandan
14	Pascua, Febe	AT, Sual
15	Plado, Teresita	AT, Sta. Barbara
16	Revita, Lemie	AT, Balungao
17	Rosario, Gemma	Provincial Coordinator
18	Rovillos, Nicanor	District Coordinator, D-VI
19	Tabuac, Ricardo	MA, Binalonan
20	Tobias, Ernesto	AT, Umingan
21	Tolentino, Gester	AT, Alaminos City



**Mga Bosing ng Palayan.** Region 1's Outstanding Agricultural Extension Workers together with their Local Government Officials proudly show-off their trophies after being awarded as top performers in the Agri-Pinoy Rice Achievers' Award held at the PICC in Metro Manila.



## VI. HUMAN AND FINANCIAL RESOURCES

### Manpower

Year 2012 saw another decrease in the total manpower complement of the DA RFU-I. By year-end, there was just a total of 201 incumbents to the total plantilla position of 288. Vacancies piled up because of the continued prohibition on the filling up of vacant positions. This is because the department-wide rationalization of positions that began in 2005 is still pending. Executive Order No. 366 or the rationalization law mandates the non-filling up of vacancies while

offices are in the process of rationalizing positions.

The number of casual personnel also decreased from 7 to 6 because one of them figured in a vehicular accident that eventually led to an untimely demise.

Added to this is the recall by the Cotton Development Administration (CODA) of nine (9) of its remaining 31 personnel detailed to DA RFU-I. Undoubtedly, the detailed CODA personnel contribute much to the accomplishment of the PPAs of the

DA RFU-I.

The decrease in manpower was a setback, so to speak and to overcome, the hiring of personnel to work on job order basis was resorted to – in fact, continued as in previous years. From an inventory of 102 at the end of June 2012, the figure rose to 58 headcounts more of the job order personnel hired at yearend. Aptly put, these job order personnel lend a hand in the attainment of the targets of the DA RFU-I.

### Financial Resources

PARTICULARS	ALLOCATION (PhP'000)
<b>CURRENT APPROPRIATION</b>	
GASS	24,342.00
STO	6,069.00
Crops	39,711.00
Livestock	18,588.00
RLIP	7,387.00
MPBF	10,284.00
National Rice Program	402,077.80
National Corn Program	56,254.00
National HVCD Program	55,547.80
National Livestock Program	28,287.00
Market-Oriented Programs	10,121.00
BAFPS	1,056.30
Agricultural Research	1,870.00
National Information Network	650.00
Organic Agriculture Program	16,528.00
Quick Response Fund	17,925.00
Pension & Gratuity Fund	3,883.00
PDAF	1,000.00
FMR	162,460.00
SPEED	312.40
PPP SSF	200.00
KOICA	8,450.00
<b>Sub-Total</b>	<b>873,003.20</b>

Fund allocation of DA-RFU I in 2012 reached more than PhP1 Billion. Of this, 87.3% or PhP873.0 Million was allocated for current appropriations and 12.07% or PhP127.2 Million for continuing appropriations.

Bulk of the current appropriations was allocated for the national banner programs. Rice Program have the highest allocation of 46.1% or equivalent to PhP402.1 Million. Allocation of FMR at PhP162.5 Million shared 18.6% of the total current appropriations.

PARTICULARS	ALLOCATION (PhP'000)
<b>CONTINUING APPROPRIATION</b>	
GASS	30,295.00
STO	868.70
National Rice Program	48,195.00
Organic Agriculture Program	16,611.40
National Corn Program	1,415.70
National HVCD Program	16,690.00
National Livestock Program	3,603.10
Market-Oriented Programs	330.30
National Information Network	4,246.40
PDAF	4,700.40
KOICA	218.40
<b>Sub-Total</b>	<b>127,174.30</b>
<b>GRAND TOTAL</b>	<b>1,000,177.50</b>

# REGIONAL MANAGEMENT COUNCIL (RMC)

## ACCOMPLISHMENTS

The Regional Management Council (RMC) of Region I is composed of 19 bureaus, corporations and attached agency-members of the Department of Agriculture including the two Regional Technical Directors (RTDs), and two Provincial Center

Chiefs of the DA-Regional Field Unit I. This is headed by the Regional Executive Director of the DA-RFU I with the Bureau of Fisheries and Aquatic Resources (BFAR) Regional Director as the Vice-Chairman.



The conduct of quarterly meetings is the main concern of the Council in order to make stronger coordination, partnership and linkage among implementers of agricultural programs and projects within the DA family. In CY 2012, there were two regular meetings conducted. The Council also attended the Joint Planning Workshop among DA-RFU I staff in the preparation of DA's Plan and Budget Proposal for CY 2014. This was a nationwide activity in which outputs will serve as a valuable input in preparation for the implementation of the Philippine Rural Development Program (PRDP). The workshop aimed to translate the Agriculture and Fisheries Modernization Plan (AFMP) 2011-2017 into annual plans implementable to the local level. This will ensure that the AFMP becomes the basis for rationalizing, prioritizing, and coordination the investment service and delivery of the Department.



### AGRICULTURAL TRAINING INSTITUTE (ATI)

- ◆ Conducted 68 trainings on regular program (3), RBO (8), rice (12), corn (3), HVCDP (32), organic agriculture program (10), benefiting 2,342 participants such as farmers, rural women, rural based organization and LGU/NGO representatives;
- ◆ Conducted 8 batches of municipal-wide technical briefing and *technoklinik* for extension workers and farmers in Region 1 with participants of 1,231 farmers and extension workers;
- ◆ Assisted livelihood projects to 4H, P4MP and Rural Improvement Club;
- ◆ Maintained 43 scholars of Youth in Agriculture and Fisheries Program (YAFP) from different State Colleges and Universities in the Region (2<sup>nd</sup> Sem SY 2011-2012).
- ◆ Generated two (2) topnotchers and two (2) board passers on Fishery Technologist 2012 board exam;
- ◆ Enrolled 17 scholars of Expanded Human Resource Development Program (EHRDP), four (4) of them graduated; and
- ◆ Planted 300 mahogany seedlings at Nagbakalan, Batac City, Ilocos Norte in mitigating the effects of climate change.



### BUREAU OF AGRICULTURAL STATISTICS (BAS)

- ◆ Conducted surveys on rice, corn, HVCDP, livestock and fisheries with 29 agricultural data bases operationalized and
- ◆ Prepared and submitted 340 statistical 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 and
- ◆ 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 of the Regional Get Excel Tilapia Hatchery in Paoay, Ilocos Norte and assisted eight (8) LGU Fish Farms resulted to production of 8.52 million tilapia, carp and catfish fingerlings;
- ◆ Awarded 179 units fishing gears to 418 members of Fisherfolks Associations: 6 units payao projects for establishment in designated municipal water zones, 24 units ready-made fish traps, 5 units marine engine and 144 pieces life saving device for fishing operation;
- ◆ 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 Pangasinan;
- ◆ Awarded 464,200 pcs of milkfish and high-value species (seabass, snapper, pompano) fingerlings for affected fisherfolk and techno-demo projects as rehabilitation;
- ◆ Maintained the Regional Seaweed Nursery in Alaminos City, Pangasinan and produced 10.8 metric tons. Eight (8) seaweed growers were provided with propagules;
- ◆ The five (5) mariculture parks were able to produced 6,891 metric tons of milkfish and high-value finfishes;
- ◆ Established/maintained basic support facilities such as solar panel powered lightning and security system, security boat, conditioning pond and Project Management Unit;
- ◆ Maintained three (3) technology stations/centers for freshwater and marine fisheries activities, on station techno-demo trials, research and development and trainings;
- ◆ Conducted regular investment fora for fisheries stakeholders to discuss relevant issues/concerns and development of the sector;
- ◆ Participated in six (6) agri-aqua fairs/link/exhibits conducted by BFAR, BAR, LGUs and other agencies;
- ◆ Produced 239,500 pieces and distributed 72,000 pieces of juveniles for culture techno demo, broodstock development and support;
- ◆ Established 6 community-based hatcheries which will serve to provide adequate supply of quality, affordable fishery and aquaculture seeds;
- ◆ Provided materials for the construction of 12 unit seaweed dryer racks to FAs in Pangasinan.





*Left photo shows during the planting of mangrove propagules in different mangrove areas in the region for the mangrove reforestation project. Right photo is the harvesting of pompano fish in one of the techno demo project sites on marine fishcage culture*

- ◆ Produced 196,800 pieces of abalone/sandfish juveniles and 31,928 pieces of siganid fingerlings for techno demo, brood stock development and research;
- ◆ Conducted value-added product formulation of seaweeds and fish-based products in the Postharvest Development Center in Sto. Tomas, La Union;
- ◆ Conducted 7 and 4 production and post harvest researches, respectively;
- ◆ Conducted 18 aquaculture, regulatory, postharvest, municipal fisheries technology and other fishery-related trainings benefiting 500 participants;
- ◆ Established 77 techno-demo projects on marine fishcage culture of pompano, pond culture technology of pompano, catfish culture, aquasilvi/mangrove aquaculture with LGUs, SUCs, and private sector through counterparting scheme;
- ◆ Continued assistance to 17 GAD-assisted women organizations on postharvest livelihood projects;
- ◆ Distributed 8,500 copies of IEC materials to walk-in clients;
- ◆ Conducted the Fisheries School-on-the-Air Program on Siganid Culture and produced 90 graduates;
- ◆ Assisted 16 LGUs in the monitoring and implementation of fish sanctuaries;
- ◆ Planted 1,000,000 mangrove propagules in the different mangrove areas in the region for the mangrove reforestation project;
- ◆ Conducted 58 field surveys and collected 522 samples for biotoxin/red tide monitoring in the municipalities of Anda, Bani, Bolinao and Alaminos City;
- ◆ Maintained the Regional Fish Health Laboratory in Dagupan City, Pangasinan;
- ◆ Conducted 397 inspections of fish processing plant to ensure food safety;
- ◆ Conducted 26 workshops, seminars and meetings and attended 163 regional/national inter-agency and international meetings/workshops;
- ◆ Conducted monitoring and evaluation of established and maintained fisheries projects; and
- ◆ Implemented Quality Management System in BFAR RFO 1 certifiable to ISO 9001.



#### **BUREAU OF SOILS AND WATER MANAGEMENT (BSWM)**

- ◆ Implemented 250 hectares of Expanding Modified Rapid Composting (EMRC) to Ilocos Norte (150), La Union (50), Pangasinan (50) Dry cropping season;
- ◆ Implemented 650 hectares of Expanding Modified Rapid Composting (EMRC) to Ilocos Norte (600) and Pangasinan (50) Wet cropping season;
- ◆ Rehabilitated one (1) diversion dam at Naguillan, La Union; and
- ◆ Established 60 small farm reservoirs (SFR) and distributed 150 units of pump and engine sets.



### FERTILIZER AND PESTICIDE AUTHORITY (FPA)

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



### FIBER INDUSTRY DEVELOPMENT AUTHORITY (FIDA)

- ◆ Produced 295.90 kilograms of cocoon out of 10.5 boxes reared by 17 farmers;
- ◆ Produced and distributed 14,900 planting materials of mulberry;
- ◆ Attended four trade fairs with a total sales of PhP51,425.00;
- ◆ Conducted one (1) farmers training with 190 participants and two (2) livelihood skills training with 51 participants;
- ◆ Conducted farmers meeting with 89 participants, and
- ◆ Established one (1) techno-demo on cocoon production.



### NATIONAL FOOD AUTHORITY (NFA)

- ◆ Procured 1,288,860 bags of *palay* with a total fund allocation of PhP1.14 Billion;
- ◆ Distributed 1,615,120 bags of rice at 50 kilograms per bag to market and community-based outlets, NFA rolling stores, Food for School Programs and farmers organizations, and
- ◆ Maintained 23 units of NFA-owned warehouses with a combined capacity of 1,233 million 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, and
- ◆ Monitored outlets and cold storages for imported meat products.



### NATIONAL IRRIGATION ADMINISTRATION (NIA)

- ◆ Restored 1,746.80 hectares of irrigable areas serviced by national and communal irrigation systems, and
- ◆ Rehabilitated 2,380.28 hectares of irrigated areas serviced by national and communal irrigation systems



### NATIONAL TOBACCO ADMINISTRATION (NTA)

- ◆ Provided a total production assistance of PhP63 Million to 10,569 tobacco farmers with 5,701 hectares under Tobacco Contract Growing System (TCGS);
- ◆ Provided technical and production assistance to 910 tobacco farmers under the Integrated Farming and Other Income Generating Activities Project (IFOIGAP) covering 1,170 hectares of tobacco plantation;
- ◆ Distributed 1,260 pump and engine sets to tobacco farmers;
- ◆ Distributed 137 kilograms of quality tobacco seeds of different varieties benefiting 5,460 farmers;
- ◆ Planted a total of 21,733 tree seedlings of ipil-ipil, mahogany and banaba in support to Backyard Fuelwood Energy Farm Project and Restoration of Ecological Integrity of Tobacco Growing Regions;
- ◆ Registered, monitored and supervised operations of 39 trading centers, 7 wholesale tobacco dealers, 4 redrying plants, and 260 field representatives;
- ◆ Documented a total tobacco acceptances of 41,922 metric tons valued at PhP2.992 Billion.



### NORTHERN FOODS CORPORATION (NFC)

- ◆ Provided farm inputs to 1,862 tomato farmers covering 631 hectares;
- ◆ Processed a total of 17,886 metric tons of tomato producing 3,041 metric tons of tomato paste worth PhP144.63 Million, and
- ◆ Conducted seven (7) research studies on processing tomato development and improvement, fertilizer and crop management, and technology verification.



*Tomatoes ready to process at the NFC's processing plant.*



### PHILIPPINE CENTER FOR POSTHARVEST DEVELOPMENT AND MECHANIZATION (PhilMech)

- Established Geographic Information System (GIS)-based decision support system for postharvest development and mechanization;
- Provided technical assistance for postharvest enterprise development and training-related activities, and
- Provided technical support for the establishment of modern integrated rice processing complexes in Region I.



### PHILIPPINE COCONUT AUTHORITY (PCA)

- ◆ Developed 2,253 hectares of Goal 1 areas planted and intercropped with coconut;
- ◆ Fertilized 52,775 coconut trees and distributed 2,361 bags of fertilizer covering 528 hectares;
- ◆ Produced 69 seedlings of embryo-cultured macapuno (ECM) and distributed 34 ECM seedlings to 17 coconut farmers;
- ◆ Provided technical assistance on integrated pest management to 1,206 farmers covering 2,341 hectares;
- ◆ Registered 33 *buko* buyers, 2 coconut processors/manufacturers/exporters, and 39 coconut lumber dealer/processors collecting a total fees of PhP36,155.00;
- ◆ Assisted in the accreditation of 10 coconut farmers organizations (CFOs) with 379 farmer-members, &
- ◆ Conducted 15 trainings on coconut farming and processing technologies and capability building.



### PHILIPPINE CARABAO CENTER (PCC) - ILOCOS NORTE

- ◆ Extended 3,706 artificial insemination services in 447 barangays in 51 municipalities in the provinces of Ilocos Norte, Ilocos Sur and Abra, and municipalities of Sta. Praxedes and Claveria in Cagayan, benefiting 3,688 livestock raisers;
- ◆ Under Bull Loan Program, 5 bulls were released to qualified recipients in Ilocos Norte (3) and Ilocos Sur (2) complementing the artificial insemination program in accelerating dairy herd build-up;
- ◆ Trained 4 new village-based technicians in Basic Artificial Insemination and Pregnancy Diagnosis;
- ◆ Produced a total of 16,538.20 kilograms of milk, 26% of which was fed to calves and 74% or 12,244 kilograms was processed into different dairy products generating a total income of PhP971,781.00, and
- ◆ Maintained its ISO 9001:2008 certification with the completion of the 1st Surveillance Audit conducted by auditors of the *Societe Generale de Surveillance* (SGS) Philippines.



*PCC office located in Tabug, Batac City, Ilocos Norte.*



### PHILIPPINE CARABAO CENTER (PCC) - LA UNION

- ◆ Conducted AI to 4,141 heads of carabao in the provinces of La Union, Pangasinan and Benguet serving 3,784 farmers;
- ◆ Distributed 5,648 frozen semen straws benefiting 4,204 village-based technicians, LGUs and farmers;
- ◆ Produced a total of 38,916.78 kilograms of milk from 7 cooperatives and 1 family module;
- ◆ Awarded 9 bulls under the Bull Loan Program in the municipalities of Mangatarem, Alcala, and San Fabian, Pangasinan, and San Gabriel, La Union, and



- ◆ Conducted technical training on Dairy Carabao Production and Management benefiting 394 farmers.



#### PHILIPPINE CROP INSURANCE INCORPORATION (PCIC)

- ◆ Enrolled a total of 24,669 farmer-beneficiaries for crop insurance amounting to Php678.43 Million - Php452.1 Million for rice, corn, high value crops and livestock farmers, and Php226.33 Million for fisheries and non-crop beneficiaries.



#### 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, and
- ◆ 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 16 research studies to increase productivity and profitability of rice and rice-based farming in northwestern Luzon, namely:
  1. Assessment of Damage Caused by Major Rice Pests under Rainfed Ecosystem
  2. Effects of Drying Methods, Storage Condition and Packaging on the Aroma of Fragrant Rice
  3. On-Farm Adaptability and Acceptability Trial of PhilRice Elite Rice Lines in Drought-Prone Rainfed Areas in Ilocos Norte
  4. Evaluation of Zero Tillage System for Rice Culture
  5. Defining Pest Management Strategies for Upland, Rainfed and Other Stress-Prone Environment of Northwest Luzon
  6. Evaluation of Leaf Color Chart (LCC) for Nitrogen Management of Rice in the Rainfed Areas
  7. Increasing Fertility and Productivity of Upland Rice Soils through Rice-Legume Cropping System
  8. Enhancing Soil Water Productivity of Upland Rice through CRH Application

9. Adaptation of Regulated Deficit Irrigation (RDI) for Rice-based Crops in Upland Areas
10. Water Lifting Devices Using Renewable Energy
11. Subsurface Water Runoff Harvesting
12. Improvement of Low-Cost Drip Irrigation System for Fertigation (Fertilizer Application and Irrigation) in the Upland Areas
13. Optimizing Crop-Livestock-Fish Mixes for Upland Farms under Limited Water Supply
14. Community-based Integration of Water Harvesting, Conservation and Management Technologies
15. Low-cost Drip Irrigation System for Rice-based High Value Crops in the Uplands
16. Development of Crop Management Options for a Palaycheck System for Submerged Areas.



Above photo shows the conduct of the field day on low cost drip irrigation system as one of the research studies conducted by PhilRice. Lower photo shows the PhilRice personnel while doing a survey to assess the damaged caused by major rice pests under the rainfed ecosystem.



#### QUEDAN AND RURAL CREDIT GUARANTEE CORPORATION (QUEDANCOR)

- ◆ Released a total of Php2.435 Million loans with 110 borrowers
- ◆ Collected a total of Php13.85 Million loans with an accomplishment rate of 50%

## RMC Members

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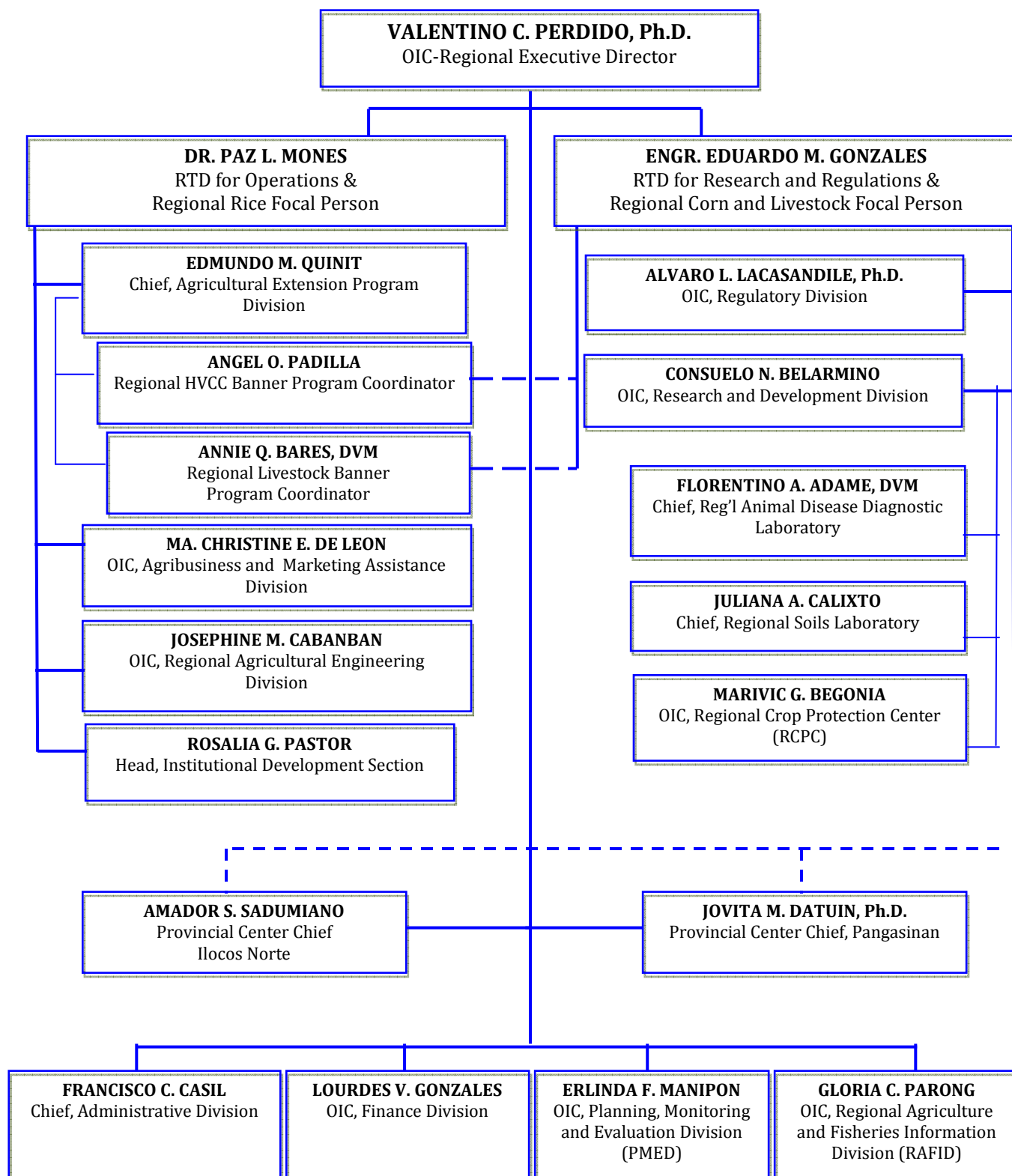
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