

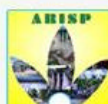
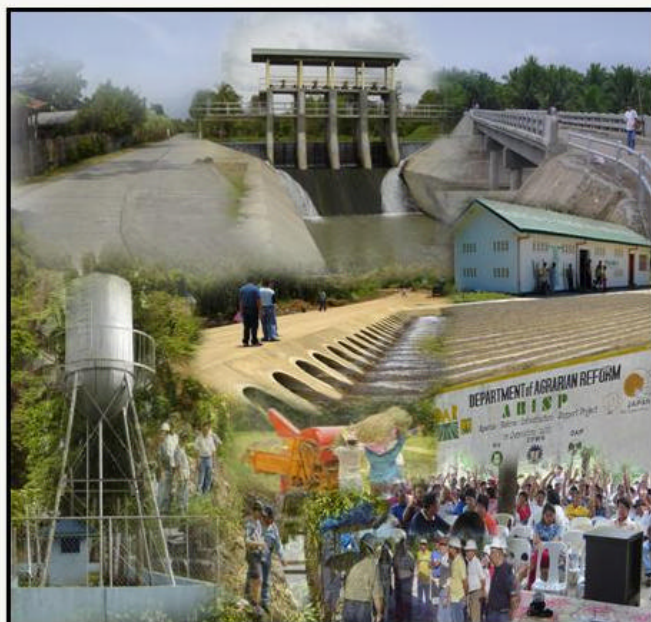


DEPARTMENT OF AGRARIAN REFORM

PROJECT COMPLETION REPORT

AGRARIAN REFORM INFRASTRUCTURE SUPPORT PROJECT – PHASE II (L/A No. PH-P203)

MAIN REPORT (Volume 1)



ARISP II Central Project Management Office
Foreign-Assisted Projects Office

December 2007



FOREWORD

The Department of Agrarian Reform is very much pleased to serve notice to our stakeholders of the completion of one of the crucial development interventions for our Agrarian Reform Communities under the Comprehensive Agrarian Reform Program (CARP): the Agrarian Reform Infrastructure Support Project – Phase II (ARISP II). The Project has, since its inception six years ago, received positive feedback from a wide public, both in the country and Japan, for its being a model for rural poverty alleviation in the country under the administration of Her Excellency Gloria Macapagal Arroyo.

We share the accolades we have received with our partners, e.g., the Department of Public Works and Highways, the National Irrigation Administration, the Development Academy of the Philippines, the Ugnayan ng Pahinungod of the University of the Philippines Los Banos, the Local Government Units, the irrigators' associations, farmers' cooperatives and other institutions and individuals who have put in their share for the realization of the goals of the Project.

We wish to extend the Philippine Government's deepest appreciation and gratitude to the Government of Japan for the trust and confidence given us by supporting the Agrarian Reform Communities (ARC) Program through the Project. With all humility, we can say that we have lived up to their expectations with ARISP II's achievements. We are heartened with recent developments towards the approval of ARISP III, which we consider as the best proof of ARISP II's success.

To all of our Project stakeholders, we reiterate our gratitude and appreciation for the concerted efforts towards completion of the Project.

NASSER C. PANGANDAMAN
Secretary

MESSAGE

As the Agrarian Reform Infrastructure Support Project-Phase II (ARISP II) reaches completion, I would like to congratulate, not only the DAR Central PMO, but field officers from DAR at the regional, provincial and municipal levels, all of whom have worked hard for this Project's excellent performance. There is no doubt that the accomplishments posted by the Project have made progress in our cause to alleviate the plight of our agrarian reform beneficiaries.

I have realized that what made the Project stand out among our ODA projects is how it has successfully mainstreamed Project operations into the regular structure and systems of the Department. The Project, being managed by DAR organic officers and staff, has not only promoted project accountability among our ranks but more importantly, increased success rate in terms of sustainability efforts.

In particular, we recognize the efforts exerted by our field implementers, specifically the members of the ARISP II Regional and Provincial Project Management Offices and the ARC Implementing Teams, who have performed way above our expectations.

We wish to cite the teamwork, dedication and commitment between and among us implementers and our partners which have played a key role towards achieving mutually-set goals. These, and the self-realization of our beneficiaries to help themselves in improving their lot, are what carried us through the two phases of ARISP and beyond.

Congratulations to all concerned for a job well done!

NARCISO B. NIETO

OIC-Undersecretary, FMAO
and Project Implementation Officer, FAPs

MESSAGE

As Undersecretary for Support Services in charge of the Program Beneficiaries Development of the Comprehensive Agrarian Reform Program, I can confidently attest that during the implementation of the Agrarian Reform Infrastructure Support Project – Phase II (ARISP II), it has successfully introduced rural infrastructures, basic social services and institutional innovations. The ARISP II strategy encouraged participation of beneficiaries, civil society and local government units that helped ensure sustainability in the implementation and maintenance of the Project.

The success of the Project has caused great impact on the lives of ARBs nationwide. More importantly, it has shown that given the essential ingredients for the farmers by providing land and agricultural support services, farmers can pull themselves out of the quagmire of poverty.

I wish to extend my warmest congratulations to the men and women behind ARISP II, for their dedication and successful implementation of the Project. I also express our deepest gratitude and appreciation to the Government of Japan and the Japan Bank for International Cooperation (JBIC) for their continuing support to the Program that will hopefully lead to the scaling up of the program implementation of a third phase.

GERUNDIO C. MADUEÑO

Undersecretary for Support Services

MESSAGE

When I came on board as Assistant Secretary for Support Services, the Agrarian Reform Infrastructure Support Project – Phase II (ARISP II) was widely appreciated for its tangible impact in the countryside, i.e., the structurally-sound infrastructure subprojects provided under the Project. I have consequently validated from my visits to these subprojects that the Project has given much more than these structures and the gains are obviously being felt by the beneficiaries.

As we close the Project's Phase II, we open the doors for the assessment of its initial gains. We look forward to making available a tool for other ODA projects which address rural poverty alleviation to learn lessons and gain insights from. While it is obvious from the report that the implementation of the Project has met its own share of challenges towards project completion, these have motivated us at the Department to raise the bar in addressing the needs of our beneficiaries.

Congratulations!

KASHMIR B. LEYRETANA

Assistant Secretary for Support Services

MESSAGE

The Agrarian Reform Infrastructure Support Project – Phase II (ARISP II) is known for always being a top performer of the Department in terms of physical accomplishments and utilization of Official Development Assistance (ODA).

The figures in this report will show that economic opportunities are opened and over-all quality of life of these farmers is improved because of ARISP II. The Project has been instrumental in delivering the necessary infrastructures that has improved the production efficiency and market access in far-flung agricultural areas. These substantive achievements are expected to guarantee the success of the forthcoming ARISP Phase III.

The DAR-FAPsO would like to extend its deepest appreciation to the Government of Japan, through the JBIC, for their unwavering commitment to Philippine rural development. Their continued support to DAR endeavors inspires FAPsO to work harder.

Finally, our congratulations to the ARISP II management and staff for their invaluable contribution which resulted in the successful completion of Phase II.

NELSON G. GENITO

Executive Director, FAPsO

MESSAGE

As the Agrarian Reform Infrastructure Support Project – Phase II reaches completion with the loan closing this March 2007, the outstanding financial performance of the Project is considered a major accomplishment. As confirmed in this report, the financial and management system of ARISP II has been proven efficient and effective, a fact which has been cited by a third-party evaluation study and audit findings.

Our success can be attributed to both our firm adherence to established processes and procedures while, at the same time, being flexible, albeit equally circumspect, in addressing urgent and critical issues needing immediate action. These, we have dutifully sought concurrence and approval from our oversight agencies and donor agency.

We can not over-emphasize the role our partners, namely, JBIC, Department of Finance, Department of Budget and Management, Bureau of Treasury, the Land Bank of the Philippines, and the finance departments of NIA and DPWH, have played at achieving these feats.

Our sincerest appreciation to all those involved in the Project!

TERESITA L. PANLILIO

Director, Finance, Management and Administrative Service,
and FAPsO Finance and Administrative Service

MESSAGE

Institutional Development, as a cornerstone in the development of ARCs, seeks to lay the foundation of a viable community by building strong and self-reliant people's organizations in the countryside. Towards this end, the Agrarian Reform Infrastructure Support Project (ARISP II) has undoubtedly helped in upgrading the status of majority of participating cooperatives as shown by the ALDA organizational maturity indices. Improvements noted over six years in terms of increased membership, capital build-up, savings and other key ALDA indicators have been encouraging with 48% of the cooperatives classified as Level 5 organizations by end of the Project. Stock-taking of the ARISP II approaches and management practices in implementing institutional development is therefore an imperative input to similar undertakings.

My appreciation to ARISP II for achieving positive results!

SUSANA E. LEONES

Director, Bureau of Agrarian Reform
Beneficiaries Development

MESSAGE

The Agrarian Reform Infrastructure Support Project Phase II (ARISP II) is one of the major projects under the Department's Official Development Assistance (ODA) Portfolio which has reported significant contributions to Program Beneficiaries Development (PBD) specifically for the development of Agrarian Reform Communities (ARCs).

As with the ARISP Phase I, the Project has received recognition for its achievements from various sectors. This is further confirmed by several in-house evaluations, particularly the regular ODA Portfolio Reviews, where ARISP II has consistently ranked high in terms of physical and financial performances. Specifically, the Project is a key contributor to the national development initiatives in addressing job generation, agricultural productivity and provision of basic social services, among others.

More importantly, as we now move on to another phase, and continue with the sustainability monitoring of ARISP II, we are confident that the safeguards are in place and definitely gaining ground.

For these and more, congratulations to all concerned!

HERMINIA FE B. SAN JUAN

Director, Project Development and Management Service
FAPsO Monitoring and Evaluation Staff
(PDMS / FAPsO -MES)

Acknowledgment

With sincere appreciation, we acknowledge all those who, in one way or another, have contributed to the successful implementation of ARISP II.

To the men and women agrarian reform beneficiaries, their communities, organizations, cooperatives and federations whose wholehearted acceptance and cooperation turned project plans into real projects;

To our implementing partners who ensured the successful completion of different project components notably the Department of Public Works and Highways-Central Labor-Based Unit (DPWH-CARP-CLBU), National Irrigation Administration-Irrigation Component (CARP-IC), Department of Agriculture-Bureau of Postharvest Research and Extension (DA-BPRE), Development Academy of the Philippines (DAP), non-government organizations (NGOs), University of the Philippines Los Banos Foundation Inc. (UPLBFI), various State Universities and Colleges (SUCs), private organizations, and microfinance institutions;

To the support of the participating local government units (LGUs), especially the municipal and city mayors, governors and congressmen for all their support in providing the necessary equity and valuable assistance in solving right-of-way and other important issues;

To the oversight agencies, notably the National Economic and Development Authority (NEDA), Department of Budget and Management (DBM) and Department of Finance (DOF), members of the Project Coordinating Council (PCC), the Presidential Agrarian Reform Council (PARC), and especially to the DAR management whose leadership, guidance and unwavering support enabled the Project Team to bring the project to successful completion;

To the Government of Japan (GOJ) and its people and the Japan Bank for International Cooperation (JBIC) for their generosity in providing the much-needed funds in order to assist our poor agrarian reform beneficiaries;

To the ARISP Teams at the central, regional, provincial and municipal levels, nationwide who displayed exceptional dedication, commitment and perseverance, and a burning passion to serve and deliver only the best for the farmers; and,

To the Project Development and Management Staff-Central Project Management Office (PDMS-CPMO) technical staff, Nippon Koei Co. Ltd., PKII Engineers and Hydroterre Consultants Inc., and the administrative staff for their untiring efforts and professionalism and teamwork in leading the implementation of the project and for painstakingly putting together this Project Completion Report;

Thank you very much for helping achieve the goals of ARISP II.

MA. CELERINA G. AFABLE
Project Manager

PROJECT FACT SHEET

LOAN DATA

Project Title			
AGRARIAN REFORM INFRASTRUCTURE SUPPORT PROJECT – PHASE II			
Fund Source	Japan Bank for International Cooperation	Signing Date	December 28, 1999
Loan No.	PH-P203	Effectivity Date	March 28, 2000
Loan Amount (Original Currency)	¥ 16,990 M	Closing Date	March 28, 2007
		Interest Rate (per annum)	CW1
Implementing Agencies	Lead ▫ Department of Agrarian Reform		CW2
		Cooperating Agencies ▫ National Irrigation Administration ▫ Department of Public Works and Highways	CS
			Commitment Charges
Regions	15 Regions	Maturity Period	30 Years
Provinces	61 Provinces	Grace Period	10 years
Beneficiaries	Agrarian Reform Beneficiaries	Cancellation	None
Description	The objective of the Project is to provide a package of intervention to improve productivity, income and quality of life of agrarian reform beneficiaries in 150 Agrarian Reform Communities (ARCs) nationwide through the provision of infrastructure facilities and development/strengthening of farmers' organizations and LGUs.		

PROJECT COMPONENTS

Components	Output Indicators	Targets at End of Project	
		Original	Revised
1. Irrigation Facilities (CIP/CIS)	No. of subprojects	193	130
	No. of hectares	43,433	31,707
2. Post-Harvest Facilities	No. of subprojects	122	66
	Warehouse capacity (sq. m.)	8,553	-
	Solar dryer capacity (sq. m.)	38,099	19,295
3. Farm-to-Market Roads	No. of subprojects	128	178
	No. of kilometres	766.1	646
4. Rural Water Supply	No. of subprojects	66	80
5. Institutional Development	No. of ARCs covered	150	150
5.1. NIA 5.2. DAR			
6. Project Administration	No. of Consultants employed	1	1
	No. of PMOs established	71	77
No. of IPG approved/implemented	1	1	
6.3. Procurement of Equipment	No. of computers procured	80	279

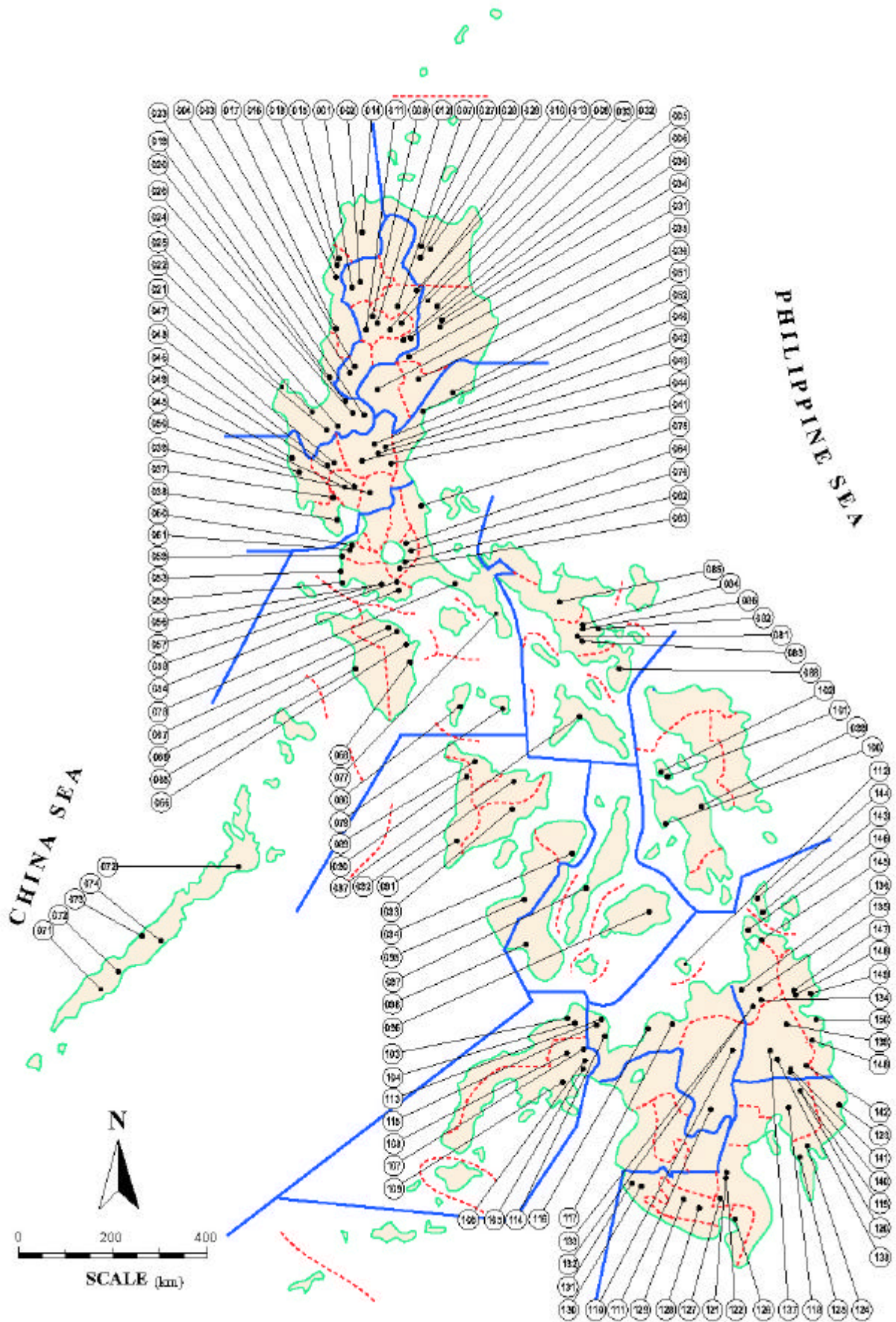
PROJECT COST

ICC-APPROVED COST		PER LOAN AGREEMENT COST		REVISED COST	
Total (₱M)	6,841.330	Total (₱M)	6,740.000	Total (₱M)	6,725.623
FOREX (\$M)	135.710	Loan Proceeds (\$M)	147.250	Loan Proceeds (\$M)	98.913
Local (₱M)	1,026.200	GOP Counterpart (₱M)	1,077.000	GOP Counterpart (₱M)	1,196.882
Conversion Rate	\$1 = ₱ 42.849	Conversion Rate	\$1 = ₱ 38.460	Conversion Rate	\$1 = ₱ 55.895

IMPLEMENTATION SCHEDULE

Project Start Date	March 29, 2000
Physical Completion Date (Original)	March 2005
(Revised)	March 2007

LOCATION MAP OF ARISP-II ARCS



LIST OF ARISP II-COVERED ARCs

Region	Province	Municipality	Name of ARC		
CAR	Abra	Villaviciosa	1 Villaviciosa		
		Sallapadan	2 Sallapadan		
	Apayao	Conner	3 RIMALIPAD		
	Benguet	Atok	4 NPC		
		Tublay	5 Aduyon		
	Ifugao	Aguinaldo	6 Aguinaldo		
		Alfonso Lista	7 Alfonso Lista		
	Kalinga	Mt. Province	Tanudan	8 Tanudan	
			Besao	9 Besao Tribal	
			Sagada	10 Sagada	
			Natonin	11 Natonin	
			Barlig	12 Kadaklan (Bariig)	
			Tadian	13 Tadian	
I	Ilocos Norte	Piddig	14 Sinamar		
	Ilocos Sur	Cabugao	15 ARAPAAP		
		Bantay	16 LITA		
		San Juan	17 Barbar		
		Suyo	18 Highland		
	La Union	Sto. Tomas	19 PUBAPA		
	Pangasinan	Bolinao	20 Catuday		
		San Carlos City	21 Guelew		
		Malasiqui	22 LASIP		
		Pozzorubio	23 Amagbagan		
		Villasis	24 Capulaan		
		San Manuel	25 Sto. Domingo		
		Natividad	26 San Macario Sur		
		II	Cagayan	Gattaran	27 LASVINAG
				Lasam	28 PENATUCA
				Sto. Nino	29 CACABSAT
	Isabela		Tumauini	30 Lapogan	
			Quezon	31 Minagbag Cluster	
			Naquillan	32 Cabaruan	
Reina Mercedes			33 Viola Estate Cluster		
Cordon		34 Capirpirwan			
Quirino	Maddela	35 Pinappagan			
Nueva Vizcaya	Bambang	36 Sama-Sama			
III	Bataan	Dinalupihan	37 Saguing-Maligaya		
		Balanga	38 Balanga BSTC		
	Bulacan	San Rafael	39 Maronquillo		
	Nueva Ecija-North	Llanera	40 Vaca Valley (Llanera)		
		Nueva Ecija-South	Gabalton	41 Gabalton	
	Cabanatuan City		42 Cabanatuan City		
	Laur		43 Laur		
	Palayan City		44 Palayan City		
	Pampanga		Mexico	45 Anao	
	Tarlac	Candaba	46 Paligue		
		Concepcion	47 Tinang		
	Zambales	Capas & Bamban	48 PSP		
		San Felipe	49 Maloma		
		Palauig	50 Daplasalaza Settlement		
	Aurora	Dinalungan	51 Mapalad/Simbahan		
		Dipaculao	52 North Dipaculao		
	IV-A	Batangas	Lian	53 HUPUCUMPRE (Prenza)	
Calatagan			54 BATAAC		
Rosario			San Isidro/Nazi	55	
			MBC	56	
			Pinagsibaan/Putting-kahoy	57	
Padre Garcia			58 Padre Garcia		
Cavite			Gen. Trias	59 Buenavista-P. Kawayan II	
		Magallanes	60 Pacheco		
Laguna		Naic	61 Naic (Halang/Palangue)		
		Bay	62 Dila		
		Victoria	63 San Benito		
IV-A	Quezon I	Mabitac	64 Matalatala		
		Gen. Nakar	65 Umiray		
	Mauban	66 Santol/Pollo/Bato			
	Quezon II	Mulanay	67 F. Nanadiego/Canuyep/San Isidro		
		Unisan	68 PTP		
	IV-B	Occidental Mindoro	Sablayan	69 CLIPVIC	
		Oriental Mindoro	Pola	70 Matulatula	
Calapan City			71 Pag-asa (Palhi)		
Naujan			72 Mahabang Parang		
Gloria			73 Gloria Cluster A		
Palawan		Aborlan	74 Apurawan		
			75 Plaridel/Jose Rizal		

Region	Province	Municipality	Name of ARC	
IV-B (contd)	Palawan	Brooke's Point	76 Venturaza Estate	
		Sofronio Española	77 Punang (Española)	
	Romblon	Roxas	78 Abarao	
		San Fernando	79 Taclobo	
V	Camarines Sur	Alcantara	80 Camili	
		Ocampo	81 May-ogob	
		Buhi	82 Burocbusoc-Tambo	
	Albay		83 San Antonio	
		Oas	84 San Vicente	
		Libon	85 Big Six	
		Bacacay	86 Kaboronyugan	
	Masbate	Milagros	87 TAJAM	
	Sorsogon	Casiguran	88 Casiguran Cluster B	
	VI	Antique	Pandan	89 JINAFRABA
			Sibalom	90 Bili
		Aklan	Ibajay	91 Ibajay Upland
Capiz		Panit-an	92 Capagaog-Timpas	
Iloilo		Passi city	93 Jaguimitan	
Negros Occidental		San Carlos City	94 Bagonbon	
	Kabankalan	95 Negros Occ. Resettlement Area		
VII	Bohol	Pilar	96 Estaca	
	Cebu	Pinamungajan	97 Anopog-Camugao	
	Negros Oriental	Bayawan	98 SDC 3 Narra	
VIII	Biliran	Biliran	99 Biliran	
		Naval	100 Naval I	
IX	Leyte	Sta. Fe	101 Sta. Fe	
		Merida	102 Puertobello	
	Zamboanga del Sur	R. Magsaysay	103 Campo IV	
			104 Sapa Anding	
Tambulig		105 Tambulig Cluster		
X	Zamboanga del Norte	Guipos	106 Balongating	
		Mahayag	107 Sta. Cruz	
		Katipunan	108 Triple S	
		Polanco	109 GLIVS	
	Misamis Occidental	Plaridel	110 Mamanga Daku	
		Aloran	111 Ladulcasban	
		Calamba	112 Siloy	
Misamis Oriental	Naawan	113 Don Pedro-Patag		
	Cagayan de Oro City	114 Mambuaya		
	Bukidnon	Don Carlos	115 Bismartz	
		Cabanglasan	116 Cabanglasan	
Camiguin	Mahinog	117 Tacanqon		
XI	Davao del Sur	Matanao	118 New Murcia/San Miguel	
		Magsaysay	119 KASDALBLO (Kasuga)	
	Davao Oriental	Baganga	120 SANVIDAKINSI	
		San Isidro	121 Poblacion Crispin dela Cruz	
		Mati	122 Don Salvador Lopez	
	Compostela Valley	Mawab	123 Mawab Cluster	
Monkayo		124 Awao		
CARAGA	Sarangani	Alabel	125 Salvacion/Union	
		Malunqon	126 BATODO	
	South Cotabato	Polomolok	127 Malunqon I	
		Tampakan	128 Glamang	
			129 POBUSILLA	
	Sultan Kudarat	Sen. Ninoy Aquino	130 Sen. Ninoy Aquino	
		Lebak	131 Lebak	
		Agusal del Norte	Las Nieves	132 KATIMALI
				133 MAP
			134 ROSSAN	
	Agusan del Sur	Butuan City	135 Basag	
		Nasipit	136 Culit	
Lapaz		137 Lapaz		
Loreto		138 Loreto		
Prosperidad		139 Prosperidad		
Trento		140 TUMABA		
Sta. Josefa		141 Angas-Awao-Sayon		
Surigao del Norte		142 TAPSI		
	Libjo	143 SPARC III Libjo		
	Basilisa	144 SPARC Basilisa		
	Malimono	145 Malimono		
	Alegria	146 Alegria		
Surigao del Sur	San Miguel	147 LISBAR (Libas Sud-Baras)		
		148 SRB (San Roque-Bolhoon)		
	Marihatag	149 Marihatag		
	Hinatuan	150 Hinatuan Cluster		

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EXECUTIVE SUMMARY

This report presents the accomplishments of the Agrarian Reform Infrastructure Support Project – Phase II (ARISP II), a project funded by the Government of Japan under the Japan Bank for International Cooperation (JBIC). The Project provided infrastructure facilities and development of farmers' organizations to improve productivity, income and quality of life of agrarian reform beneficiaries in 150 Agrarian Reform Communities (ARCs) nationwide.

As of Project completion date, the Project covered 99.66% of its overall revised physical targets, for a total cost of ₱6.789 billion of which ₱5.578 billion is from the loan proceeds and ₱1.211 billion is from the GOP counterpart funds. The Project was able to obligate approximately 100% of the allotment released.

Under the Infrastructure Development Component, a total of 467 infrastructure subprojects were approved for implementation at a total cost of ₱5.06 Billion. This represents 99.59% of the revised targets with a 0.52% increase in cost. As of the Project's completion date, overall construction progress is 96%, where 133 irrigation and drainage facilities, 184 farm-to-market roads, 68 post harvest facilities (inclusive of warehouses, solar dryers, and the Agrarian Information and Marketing Center (AIM-C) buildings), and 82 rural water systems were implemented. Some restoration works were required on 12 subprojects (namely, 11 irrigation and 1 FMR subprojects) because of damages caused by typhoons and floods which occurred in 2006, hence the on-going works after loan closing. These restoration works are expected to be completed within the year (2007).

For the Institutional Development Component, all ARCs targeted for assistance received various forms of interventions such as assistance to farmers' cooperatives (primary and federations), irrigators associations/groups, and rural water associations/groups through the provision of training programs and other related activities such as agricultural support development assistance, microfinance dissemination, financial intermediation, credit facilitation and assistance to AIM-C operation. Specifically, a total of 403 subject-organizations were organized and/or strengthened, or 103% of the revised targets.

Initial results of the Project based on a results monitoring and evaluation study at its 4th year of implementation (2005) and involving a scope of 50 ARCs, was conducted by Urbis Philippines, Inc., as commissioned by the Development Academy of the Philippines (DAP). The study has shown that the following major benefits were being enjoyed by the ARCs assisted by the Project at the time of the study: 20% increase in farmer's income; 36% increase in average rice production; 34% reduction in transport cost; 58% reduction in travel time; 152% increase in water availability for potable drinking; and 70% savings on time for fetching potable water. Earlier findings on increase in membership of the farmers' cooperatives by 36%, increase in savings among the cooperatives assisted by 66% and that farmers also adopted diversified farming and other livelihood projects which are appropriate to their needs and skills, were confirmed by the study.

The above findings were affirmed by in-house reports as of Project completion date which were culled from those submitted by DAR field offices. Among other findings, the reports show that the average annual HH income (farm, off-farm, and non-farm combined) among the ARCs covered by the Project increased to ₱70,392.33 from a baseline of ₱55,510.09 (or an increase of 27%), which can be attributed to are the subprojects introduced to the ARCs under the agricultural support development component.

Several innovative approaches and strategies implemented under the Project were cited for their contribution to the above achievements of the Project. These include the streamlining measures under its Project Management component, where Project operations were mainstreamed into the regular structure and systems of the DAR, DPWH and NIA wherein the systems and operating procedures of the Project were cascaded without much difficulty down to the field offices and front-liners of implementation. Further, several pioneering activities that showcased ARC

connectivity under the Institutional Development Component, e.g., the AIM-C strategy, micro-finance technology dissemination, credit facilitation and the adoption of an integrated physical and institutional approach to O&M performance assessment known as the Appraisal through Rapid Reconnaissance of Operations Work (ARROW). Under the Infrastructure Development Component, specific existing mechanisms which were enhanced in order to address implementation bottlenecks and pave the way for effective and efficient implementation of the subprojects were cited.

Under the Project, several sustainability mechanisms, schemes and instruments to ensure that the gains flow in the long run were presented. Specifically, Turn-over Documents for each of the subprojects, Memorandum of Agreement, Project Sustainability Plans, and Operations Manuals were submitted, forged or updated, as the case maybe, to ensure that facilities are maintained beyond project completion. The ARROW and the National and Regional/ Provincial Inspectorate Teams serve as instruments and mechanisms to ensure sustainability monitoring, including the inherent inter-agency collaboration.

Challenges encountered in implementation included budgetary constraints, operational and coordination problems and natural calamities, among others. Important lessons learned and insights gained as a result of these challenges were mainly a re-assessment and modification of certain policies and institutional and implementation arrangements on the part of the Project Management.

In closing, the report offered critical realizations and recommendations for future projects to take stock of. Among these are the following:

- Continuation of the integrated, area-based approach to ARC development while finding the optimal mix of component that would generate greater net impact;
- Implementation of a supervised technology package for agricultural development to boost production and productivity;
- Establishment of connections between and among ARCs to expand the benefits to more farmers thru information sharing, group investments and collective marketing;
- Implementation of market-driven production and agribusiness projects covering wider production areas and more farmer cooperators thru technology promotion, market linkaging, and agricultural financing;
- Guaranteed availability of cash and timely release of funds thru special accounts;
- Mainstreaming project management within existing structures and processes of implementing agencies with technical assistance of competent consulting services;
- Enhancement of pre-engineering and construction management;
- Expansion of LGU involvement and adoption of more flexible cost-sharing schemes; and
- Establishment of more stable mechanisms for long-term sustainability and monitoring of projects and institutionalization of The Appraisal through Rapid Reconnaissance of Operation Work (ARROW) which was introduced under ARISP II including possible upgrading of sustainability monitoring into a computerized system.

- Continuation of the integrated, area-based approach to ARC development while finding the optimal mix of component. Based on RME study, the linkages of infrastructure project and marketing-related interventions have produced integrative effects. However, further studies should be pursued to ensure that the mix of intervention would yield optimal results;
- A supervised technology package for agricultural development to boost production and productivity should be implemented so that competent agricultural extension workers and technicians can guide and monitor the application of proper technology and agricultural management practices. The Volunteer Program for Agricultural Development and Farmer Scientist Training Program are worth replicating with some practical improvements;
- Establishment of connections between and among ARCs to expand the benefits to more farmers thru information sharing, group investments and collective marketing;
- Implementation of market-driven production and agribusiness projects covering wider production areas and more farmer cooperators thru technology promotion, market linking, and agricultural financing;
- Special Account procedure to guarantee the availability of cash support and timely release of funds. However, some measures to alleviate the budget impact may be taken such as maintaining the Special Account in Yen, reducing the amount of initial deposit, and/or maintaining a single exchange rate for every disbursement made;
- Mainstreaming project management with technical assistance thru consulting services. The project management set-up wherein mainstreaming of project planning and implementation into the regular structure and processes has placed the DAR on top of the Project and has enhanced the sense of ownership among the DAR Central, regional, provincial and municipal levels. Likewise, the engagement of engineering and management Consultants proved to be advantageous to the Project in terms of ensuring quality and cost-effectiveness especially on infrastructure projects. The technical assistance provided helped a lot in improving the planning and technical capabilities of partner agencies;
- Enhancement of pre-engineering and construction management thru a more detailed technical evaluation to avoid common risk factors during construction. Also, construction thru local minor contract was found advantageous than force account works or by administration in terms of risk management and cost due to the provision for Comprehensive All Risk Insurance (CARI). In addition, quality assurance must be conducted for all infrastructure projects and should form part of the standard operating procedure prior to acceptance and turnover;
- LGU involvement and Cost-sharing must be encouraged and strengthened as it has fostered ownership and commitment of the LGUs to increase investments in the agrarian sector and in the light of the national government policy of 50:50 NG-LGU cost-sharing scheme; and,
- Sustainability planning and monitoring mechanisms. A more stable and practical local mechanisms should be explored to ensure long-term sustainability of projects to ensure that the gains provided by the Project are not negated.

1.0 INTRODUCTION

1.1 The Report

This Project Completion Report (PCR) primarily documents the accomplishments and initial benefits achieved from the implementation of the Agrarian Reform Infrastructure Support Project – Phase II (ARISP II) in 150 Agrarian Reform Communities (ARCs) nationwide.

At the same time, the report presents what the Project has done to address specific challenges and issues encountered in project implementation. Separate chapters are devoted to discussions on what the Project consider as innovative approaches and strategies adopted to address the challenges, including lessons learned and insights gained. Also included in the report is the sustainability efforts started under the Project to ensure that gains are preserved and shall flow in the long run.

Finally, taking into account lessons learned and insights gained, the report presents recommendations intended as guideposts for future ODA projects, in general, and for the forthcoming ARISP Phase III, in particular.

This ARISP II PCR is prepared in accordance with Article III, Section 4 (6) of Loan Agreement No. PH-P203 dated December 28, 1999 using as bases the approved Project Document, regular Project progress reports, Portfolio Review Reports of oversight agencies, results from a third party conducted-Mid-term Evaluation Study and in-house-reports submitted by partner agencies, institutions and DAR field offices.

The report is composed of two (2) volumes, namely, the Main Report (Volume 1) and the Annexes (Volume 2).

1.2 Project Context

Under the 1987 Philippine Constitution, the promotion of an equitable land ownership with empowered agrarian reform beneficiaries (ARBs) is declared as a state policy. It is in this context that the implementation of the Comprehensive Agrarian Reform Program (CARP), as mandated under the Comprehensive Agrarian Reform Law (CARL) or Republic Act 6657, became imperative. CARL became effective in 1988 and paved the way for the implementation of the CARP.

The CARP provides for the equitable distribution of land to all farmers and farm-workers as beneficiaries. It was considered as comprehensive for several reasons, one of which is giving due significance to its Program Beneficiaries Development (PBD) component. or the delivery of support services to the ARBs. The component generally aims to empower farmer beneficiaries through improvements in their farming practices in their newly-acquired lands. Support services to farmers include the provision of infrastructure support, credit, extension services, among others to farmer-beneficiaries (FBs) to increase their productivity after the land is awarded to them.

Challenges encountered by the DAR and other agencies mandated to implement the CARP include the uncoordinated delivery of support services which hamper its implementation. To accelerate the delivery of support services, DAR adopted in 1993 the Agrarian Reform Community (ARC) development concept as a key strategy in implementing the CARP more effectively and efficiently. The development concept is basically an area-focused, resource-based, community-centered and impact-oriented approach to rural development.

An ARC is either a barangay or a cluster of barangays where there is a critical mass of farmers and farm workers awaiting the full implementation of agrarian reform. These are where CARP interventions are intended to be directed and synchronized. The target is to cover 2,000 ARCs until 2010.

Due to the meager resources to fund development projects in the ARCs, the Department began to actively seek the assistance of the international donor community. They, in turn, have recognized the potential of this development strategy to transform the rural areas and have actively extended support in the form of Official Development Assistance (ODA) to fund these initiatives.

The Government of Japan (GOJ), through the then Overseas Economic Cooperation Fund (OECF) now known as the Japan Bank for International Cooperation (JBIC), is one of the active supporters to the cause of agrarian reform. JBIC, the implementing agency of Japanese ODA, started to pour development assistance to ARCs in August 1995 with the approval of Phase I of ARISP and in 1996 with the approval of the Rural Farmers and Agrarian Reform Support Credit Program.

ARISP I was conceptualized to ensure that lands distributed to farmer-beneficiaries become highly-productive through the provision of basic agricultural infrastructure and facilities for agricultural development in 79 ARCs nationwide. It provided basic infrastructure facilities, e.g. irrigation, farm-to-market roads, post-harvest facilities and institutional development to these ARCs.

Based on monitoring reports of DAR, a marked increase in the income and agricultural productivity of the beneficiaries was noted. Specifically, ARISP I's gains include 113% improvement in cropping intensity, 97% increase in average yield, 28% decrease in transport cost and 36% increase in capital build-up generation.

Moreover, the Institute of Agrarian and Rurban Development Studies (IARDS) of the University of the Philippines Los Baños (UPLB) in partnership with Dr Katsumi Nozawa of the University of Asia in Japan, conducted an evaluation study through a survey of three ARCs covered by the ARISP-I and three ARCs not covered by ARISP I. The evaluation noted greater improvements in crop yield, cropping intensity and household income in ARCs covered by ARISP I compared with non-ARISP ARCs.

With the positive results of ARISP I as shown in evaluation studies conducted to assess its impact, a Phase II, became the next and immediate step for the Department to pursue.

2.0 PROJECT DESIGN

2.1 Introduction

In 1998, ARISP II was conceptualized as a development intervention under the Program Beneficiaries Development component of CARP. It is in response to the increasing demand for support services to increase the productivity of lands awarded under the Program. Specifically, ARISP II's goal is to help reduce the incidence of poverty in the countryside through the increase in agricultural productivity and income of farmers in underserved areas nationwide. It sought to accomplish this through the delivery of basic infrastructure facilities and at the same time establishing/strengthening farmers' organizations, to ensure an integrated package of development assistance.

ARISP II is in support of the Agrarian Reform Community development approach of the Department. Specifically, it operates within the framework of an integrated, area-focused, participatory, multi-sectoral and sustainable approach to rural development.

The Project is an expansion of ARISP I which was implemented in 79 ARCs nationwide. The Department saw the need to expand the reach of the development intervention to cover more underserved ARCs nationwide, identified 150 ARCs as project sites of ARISP Phase II. Beyond the provision of basic infrastructure and strengthening of farmers' organization, ARISP II espoused the inclusion of additional strategies which were realizations from the ARISP I experience: (i) approach and implementation scheme that are considered to strengthen the participation of Local Government Units (LGUs) in the implementation of devolved subprojects and services, and (ii) the inclusion of rural water supply (RWS) as another subcomponent under its infrastructure development component.

Project preparation phase for Phase II of ARISP started in 1998, three years before the completion of ARISP I in 2001. The National Economic Development Authority (NEDA) - Investment Coordinating Committee (ICC) - Cabinet Committee (CabCom) approved the Project on October 20, 1998 for financing under the 23rd Yen Loan Package (YLP) of the GOJ through the JBIC. The Loan Agreement was signed by and between the Governments of Japan (GOJ) and the Philippines (GOP) on December 28, 1999. However, implementation commenced on March 28, 2000 when the loan became effective. It was implemented within a seven year period and was officially closed on March 28, 2007.

2.2 Project Goal and Objectives

The general objective of ARISP II is to alleviate poverty, institute agrarian change and spur economic growth in the ARCs nationwide as manifested in 150 ARCs, in terms of income increases and improvement in the living standard of the beneficiaries. In specific terms, the ARC member-families are expected to attain an average annual income of ₱60,000.00 at 1996 price level, thus effectively raising them above the poverty threshold. This is pursued by providing the essential infrastructure and institutional development support that an ARC needs in order for it to take off from its state of underdevelopment.

The following are the specific objectives of the ARISP II:

- a) to increase farm productivity in 43,433 hectares by the provision of steady irrigation water supply and post-harvest facilities
- b) to improve the mobility of rural people and their farm produce within and outside the ARC by the construction/rehabilitation of 766 kms. of farm-to-market roads;

- c) to improve the health condition of the rural people and to minimize the time spent by women and children in hauling water from the springs and wells by providing 66 units of rural water supply facilities;
- d) to establish/strengthen at least 150 farmers' organizations to ensure viability of the Project; and
- e) to strengthen the capability of LGUs in planning , design and implementation of infrastructure projects.

2.3 Project Scope

The Project has targeted to cover 150 ARCs located in 61 provinces, 140 municipalities and 15 regions nationwide.

This is composed of approximately 99,652 agrarian reform beneficiaries and farmers' cooperatives, federations, Irrigators' Associations/Groups, water-users associations and LGUs in 150 ARCs.

2.4 Project Components

ARISP II adopted an integrated package of support services in support of the ARC Development Program. The package comprised of an (1) infrastructure development component which included communal irrigation and drainage facilities, post-harvest facilities, farm-to-market roads and rural water supply and, (2) institutional development component which involved the strengthening of farmers' organizations to enable them to effectively and efficiently operate and manage the facilities provided under the Project.

2.4.1 Infrastructure Development Component

2.4.1.1 Irrigation and Drainage Facilities. This subcomponent was designed to provide steady irrigation water supply through the development of communal irrigation projects (CIP) and communal irrigation systems (CIS). The goal of the intervention is to improve productivity and increase agricultural productivity through improved farming practices in 43,433 hectares through the construction/rehabilitation of 193 subprojects.

Specifically, the scope of works for this subcomponent were the following: construction of diversion works and intake works, pump station (including procurement of pump equipment), construction/rehabilitation of irrigation canals (main, lateral and ditch), construction of drainage canals (farm drain and ditch), related canal structures, flood protection dikes, access roads, O&M service roads, and bunk houses or construction site offices. The type of irrigation systems/projects implemented depended upon the condition of the site, topography and their feasibility.

2.4.1.2 Farm-to-Market Roads (FMRs) and Bridges. The specific objective of this subcomponent is to improve the mobility of, not only the rural people, but also their farm produce within and outward the ARC. This improvement was targeted to decrease transportation costs for both agricultural inputs and outputs.

The Project's original target was to provide for the construction/rehabilitation of 766.1 kilometers of barangay roads. The type of improvement and structures provided depended upon the location, topography, need and technical/financial soundness of each subproject.

The scope of works per Project design were the rehabilitation and improvement of existing FMRs/barangay roads in the ARCs, construction/opening of new FMRs/barangay roads in the ARCs, construction and rehabilitation of structures such as bridges, spillways, culverts, drainage, crossing structures, among others., rehabilitation and improvement of critical access roads within and outside the ARC, including provincial facilities, in exceptional cases.

2.4.1.3 Post-Harvest Facilities (PHFs). The provision of these facilities under the Project, originally targeted at 122 units, aims to maximize the benefits to be derived from agricultural produce by improving its quality, increase the price of agricultural products, and provide start-up investment for future ventures into higher level of enterprise development, such as trading and milling of rice and other crops.

The scope of works were the construction of (1) warehouses intended as protection against inclement weather and pests and to reduce storage losses and deterioration of quality of agricultural produce and/or (2) solar dryers intended to address prolongation of the storage life and quality retention of agricultural produce to command higher price in the market.

2.4.1.4 Rural Water Supply (RWS). The specific objective of this subcomponent is to improve the health conditions of FBs in the ARCs and minimize the time spent by women and children in hauling water from springs and wells through the construction/improvement of RWS.

The Project's original target was to construct 66 units of RWSs comprised of 23 Level I and 43 Level II RWSs. The Level I System was intended for areas where the houses are thinly-scattered and which have a distance from the farthest user of not more than 250 meters. Level II, on the other hand, was targeted to be provided to areas where houses are clustered densely to justify a simple piped system.

As designed, the above four (4) subcomponents were planned and implemented as part of ARC Development Plans, drawn up through an integrated and consultative process involving the target beneficiaries, LGUs, DAR and other cooperating agencies.

2.4.2 Institutional Development Component

The Institutional Development Component (IDC) component covered the formation and/or strengthening of farmers' cooperatives, Irrigators' Associations (IAs/Irrigators' Groups (IGs) and Water Users' Associations (WUAs), enabling them to effectively and efficiently operate and manage irrigation systems, PHFs and water supply systems constructed or rehabilitated under the Project.

2.4.2.1 Cooperative Development. This assistance consisted of the provision of technical assistance that included coaching, mentoring/advisory and capability-building through the conduct of training for subject organizations. The goal is to facilitate the transformation of cooperatives into dynamic entities capable of handling day-to-day operations, including the adoption and dissemination of appropriate production technologies extended to them.

2.4.2.2 Irrigators Association/Irrigators Group Development. Following the participatory approach or people empowerment concept, the end goal of this subcomponent is to establish organizationally-strong, viable and self-reliant IAs/IGs that will be involved in all phases of the irrigation development process, i.e., from feasibility state to Operation and Maintenance (O&M) stage.

2.4.2.3 Water Users Association/Water Users Group Development. The overall goal of this subcomponent is to contribute to the sustainability of rural water services through organized and strengthened Water Users Association/Water Users Group (WUAs/WUGs). This intervention was undertaken by the Institutional Development (ID) Coordinator of the DAR-Provincial PMOs in close coordination with the Municipal LGUs through the Local Development Worker (LDW) as well as the subject-organizations.

In implementing this component, the Project maintained the tri-partism (Government Organizations-Non-Government Organizations-Peoples' Organizations (GO-NGO-PO) and participatory approaches that were adopted under ARISP I. The major stakeholders include the DAR, NIA, DAP and Municipal LGUs representing the GO sector; the Local-Based Partner Institutions (LBPIs) representing the NGO sector and the cooperatives, IAs and Water Users Associations (WUAs) representing the PO sector.

As designed, the component was implemented following the policies/strategies such as (1) targeting one subject organization per facility per ARC; (2) integration and synergy between and among farmers' organizations, government agencies (national/local), local partner-institutions and private sector; and (3) convergence by bringing in additional support from various sectors to provide related interventions.

2.4.3 Project Management

The organizational, functional and institutional arrangement for the implementation of ARISP II is designed according to the inter-agency and multi-sectoral nature of the Project.

Specifically, this involves Peoples' Organization-Government Organization-Non-Government Organization (PO-GO-NGO) approach to ARC development taking into consideration the line of specialization and complementary roles of concerned Government Organizations (GOs), POs and NGOs.

As in ARISP I, DAR was the lead agency and key implementor for institutional development component. The National Irrigation Administration (NIA) was the implementing agency for irrigation and post harvest development including the strengthening or development of irrigators associations. The Department of Public Works and Highways (DPWH) was responsible for the farm-to-market road component, while the participating Local Government Units (LGUs) served as implementing partners for the rural water supply subcomponent, including the necessary training of water users associations.

For institutional development, an umbrella non-government organization was engaged responsible for the implementation of cooperative development through locally-based NGOs.

As designed, The Project Management structure was composed of the following:

1. A Project Coordinating Council (PCC), an inter-agency body which provided overall policy direction and management decisions to the Project. This was chaired by DAR with NIA and DPWH officials as members.
2. A Central PMO manned by organic staff of DAR which exercise overall supervision in project planning, financial management, information system and scheduling of implementation, progress monitoring, and evaluation of the Project. The CPMO is assisted by Project consultants in terms of technical and economic evaluation of infrastructure projects and assistance in financial management and overall operations.

The CPMO should oversee and supervise project activities of the DAR Regional and Provincial PMOs which are all organic units of DAR. As well as manage the coordination mechanism at the Central Office level composed of an inter-agency PMO which involved the NIA-CARP Irrigation Component (CARP-IC) and DPWH-CARP-Central Labor-Based Unit (CLBU) at the national level. Parallel inter-agencies PMOs were tasked to manage implementation of various activities at the regional and provincial levels involving organic units and staff of DAR, NIA, DPWH and LGUs.

Implementation of the Project is based on the management systems established in ARISP I as contained in the sectoral implementation manuals and any agreed upon amendments. Financial Management for Loan Proceeds was based on Special Account Procedure (SAP), Transfer

Procedure (TP) and Statement of Expenditures (SOE) System based on JBIC guidelines. For GOP counterpart funds, the applicable government accounting and auditing guidelines, procedures, rules and regulations were followed.

3.0 PROJECT ACCOMPLISHMENTS

3.1 ORIGINAL AND FINAL ARC SITES

Based on its original target, 150 pre-identified ARCs nationwide from among those indorsed by the Regional and Provincial PMOs were selected as Project sites. These ARCs were subjected to a set of ARC selection criteria where the accomplishment on Land Tenure Improvement (LTI), set at not lower than 75%, was a key consideration. Additional criteria were applied during the course of the review of the sites, which resulted in 99 ARCs from the original list being retained while 51 were replaced by substitute ARCs (**Table 3-1**) due to any of these reasons:

- a) in view of lag time between project preparation to actual start of implementation, several ARCs were already assisted by or pipelined for assistance under other foreign-assisted projects of DAR or local fund sources (31 ARCs);
- b) low LTI accomplishment (2 ARCs);
- c) environmental concerns (4 ARCs);
- d) ARCs were delisted from the DAR ARC Masterlist by the ARC National Task Force (6 ARCs);
- e) technical considerations such as right-of-way problems, water rights problems (3 ARCs); and
- f) other reasons (5 ARCs).

Table 3-1. Original and Final ARC Sites By Region

REGION	ORIGINAL SITES		FINAL SITES		
	Proposed	Cancelled	Retained	Substitutes	Total
CAR	10	5	5	5	10
I	13	4	9	4	13
II	13	0	13	0	13
III	16	1	14 ¹	2	16
IV-A	17	6	11	5	16
IV-B	12	3	8 ²	4	12
V	7	4	3	5	8
VI	7	3	4	3	7
VII	3	2	1	2	3
VIII	4	2	2	2	4
IX	7	3	4	3	7
X	8	3	5	3	8
XI	7	5	3	5	8
XII	5	3	2	4	6
CARAGA	21	5	15 ³	4	19
TOTAL	150	49	99	51	150

¹Two ARCs in Bataan under the original sites were merged into one.
²One ARC in Palawan was merged with another ARC.
³One ARC in Surigao del Sur was subdivided into two ARCs.

The above ARC pre-qualification process is part of an established set of procedures employed in the final selection of sites which was conducted by the CPMO and the Consultants. After the prequalification, the selected ARCs were subjected to and have undergone the next major phases leading to project completion, as follows: 1) Approval of the ARC Indicative Plan; 2) JBIC concurrence; 3) Approval of Sectoral Plans; 4) Approval of Detailed Design and Program of Works; 5) Project Implementation and 6) Project Completion and Turn-over.

The revisions were concurred by JBIC and duly reported in the ODA Portfolio Review Reports submitted to oversight agencies and were implemented on a per package basis.

The general features of the final 150 ARCs sites are described below:

Table 3-2. General Profile of Covered ARC Sites

Indicators	Total (150 ARCs)	Average (per ARC)
Total Land Area (hectares)	914,450	6,096
Agricultural Land (has.)	426,376	2,843
LTI Scope (has.)	149,013	993
LTI Accomplishment		
Area, in hectares	140,736	938
Percent (%)	94.44	94.46
Population Covered	903,850	6,026
Beneficiaries Served		
Total Households	176,475	1,177
ARB Households	98,479	657

Out of the population assisted by the Project, an estimated 14% belongs to indigenous groups. These beneficiaries are found in 41 ARCs of the Cordillera Administrative Region (CAR), Region II (Nueva Viscaya), Region III (Zambales), Region IV-B (Palawan and Oriental Mindoro) and CARAGA.

In summary, the number of ARCs covered and the corresponding subprojects provided per component are summarized as follows:

Table 3-3. Summary of Subprojects Provided by Component

COMPONENT	SUBCOMPONENTS	No. of		No. of Subject-Organizations
		No. of ARCs	Subprojects	
Infrastructure Development	Irrigation and Drainage Facilities	116	133	
	Post-Harvest Facilities	66	66	
	Agrarian Information and Marketing Center	2	2	
	Farm-to-Market Roads	146	184	
	Rural Water Supply	80	82	
Subtotal			467	
Institutional Development	Cooperative Development	150		152
	Irrigators' Associations/Groups' Strengthening	116		169
	Water Users' Associations/Groups /Organizing Strengthening	79		82
	Subtotal			403

The General Work Flow in the Selection of ARC Sites (**Annex 1**), Masterlist of Pre-qualified ARCs (**Annex 2**), List of JBIC-concurred ARCs by Package (**Annex 3**), General Features of the ARC Sites (**Annex 4**), List of Covered ARCs and Corresponding Supported Components Provided (**Annex 5**) and the Summary of Project Costs By ARC and By Component (**Annex 6**) are attached in Volume 2 of this report.

3.2 ORIGINAL AND REVISED TARGETS

In view of the inclusion of substitute sites and adjustments as a result of validation and the actual needs of the beneficiaries, it became necessary to revise targets, particularly for the infrastructure development component. Likewise, during the construction period for infrastructure subprojects, adjustments in the original targets were necessary in order to provide the necessary structures for both irrigation and FMR subcomponents as required to produce structurally sound, durable, safe and economical facilities. Specifically for this component, the original target of 509 subprojects was reduced to 454 subprojects (**Table 3-4**).

Table 3-4: Original Against Revised Targets

COMPONENT	Physical Indicator	ORIGINAL TARGETS	REVISED TARGETS
Infrastructure Development			
Irrigation	hectare	43,433	31,707
PHF	subproject	193	130
FMR	unit	122	66
RWS	km	766.1	646
	subproject	128	178
	unit	66	80
<i>No. of subprojects</i>		509	454
Institutional Development	ARC	150	150
Consulting Services	unit	1	1
Equipment Support	unit	80	279
Project Management	unit	71	77

The original targets for irrigation, FMRs and PHFs were reduced due to technical and financial constraints. On the other hand, the increase in the RWS facilities provided was made due to the high demand for the facilities and willingness/readiness of the concerned Municipal LGUs to provide equity, which is one of the prerequisites under the Project.

The revised targets were concurred by JBIC and duly reported in the ODA Portfolio Review Reports submitted to oversight agencies. The original and revised targets are specified in the Project's Logical Framework (**Annex 7**).

3.3 ORIGINAL AND ACTUAL IMPLEMENTATION SCHEDULE

The original planned physical implementation schedule of the Project was set at five (5) years, which started with the effectivity of the loan in March 28, 2000. However, the actual implementation period was officially extended by two (2) years within the loan period to give time to complete the remaining construction works for 12 subprojects.

The above extension was unavoidable due to unforeseen factors such as budgetary constraints, in particular the re-enacted budgets in 2000-2001 and the untimely release of pre-engineering funds which consequently delayed the start of constructions works. Moreover, some restoration works were required on 12 subprojects (namely, 11 irrigation and 1 FMR subprojects) because of damages caused by typhoons and floods which occurred in 2006, hence the on-going works after loan closing. These restoration works are expected to be completed within the year (2007).

All other components of the Project, such as the Institutional Development and the agri-development support subcomponents, were completed within the seven-year duration.

The Comparison Table on the Original and Actual Implementation Schedule is attached as **Annex 8**.

3.4 SUMMARY OF OVERALL ACCOMPLISHMENTS

The Project covered 99.66% of its overall revised physical targets (**Table 3-5**) for a total cost of ₱6.789 billion of which ₱5.578 billion was from the loan proceeds and ₱1.211 billion was from the GOP counterpart funds (**Table 3-6**). The Project was able to obligate 100% of the allotment released by DBM.

COMPONENT	Physical Indicator	ACTUAL ACCOMP	PHYSICAL ACCOMPLISHMENT				COST (in P'million)
			Against Original Targets		Against Revised Targets		
			%	Weight	%	Weight	
Infrastructure Development							
Irrigation	hectare	31,595.35	72.75	33.67	99.65	41.86	2,866.859
	subproject	133	68.91		102.31		
PHF	unit	68	55.74	1.26	103.03	1.22	80.402
FMR	km	641.10	83.66	23.91	99.24	30.11	2,016.111
	subproject	184					
RWS	unit	82	124.24	1.98	102.50	1.4	102.745
<i>Total</i>		<i>467</i>	<i>91.75</i>		<i>102.86</i>	<i>74.59</i>	<i>5,066.117</i>
Institutional Development	ARC	150	100.00	7.98	100.00	7.9	485.218
Consulting Services	unit	1	100.00	7.10	100.00	8.4	608.875
Equipment Support	unit	279	348.75	7.60	100.00	2.13	143.037
Project Management	unit	77	108.45	4.34	100.00	6.64	486.748
Grand Total				87.84		99.66	6,789.995

When compared with original targets, the Project was able to accomplish about 87.84% (**Table 3-5**) at a cost that is just 0.74% above the amount indicated in the loan agreement.

A remarkable increase in the number of equipment procured was in response to the actual needs of field implementers to facilitate close monitoring of implementation, particularly the construction works, and to meet the required monitoring reports by DAR management and oversight agencies. The additional procurement was concurred by JBIC and within the original allocations.

There was a shift in the resulting LP:GOP sharing at the closing of the Project at 82:18 compared to the original ratio of 84:16. This came about due to some unforeseen GOP constraints at the onset of the Project and the inevitable two-year extension. This minimal increase in the total cost was basically due to the 12% increment in the GOP which is attributable to the increased tax requirements and additional management cost for the two-year-time extension.

COMPONENT	ORIGINAL COST	REVISED COST	ACTUAL OBLIGATIONS				
			Cost			Against Original Targets	Against Revised Targets
			LP	GOP	Total		
Total	Total						
Infrastructure Development	5,306.383	5,039.666	4,422.317	643.799	5,066.116	95.47	100.52
Irrigation	3,119.771	2,825.557	2,505.293	361.565	2,866.859	91.89	101.46
PHF	152.359	79.588	60.186	20.216	80.402	52.77	101.02
FMR	1,926.307	2,040.323	1,756.768	259.343	2,016.111	104.66	98.81
RWS	107.946	94.198	100.070	2.675	102.745	95.18	109.07
Institutional Development	538.116	530.992	414.022	71.195	485.218	90.17	91.38
Consulting Services	478.690	565.158	608.875	0.000	608.875	127.20	107.74
Equipment Support	146.896	143.037	133.542	9.495	143.037	97.37	100.00
Project Management	269.915	446.770		486.749	486.749	180.33	108.95
DAR	145.915	352.446		386.058	386.058	264.58	109.54
NIA	124.000	53.923		53.923	53.923	43.49	100.00
DPWH		40.400					
Grand Total	6,740.000	6,725.623	5,578.757	1,211.238	6,789.995		

3.5 SECTORAL ACCOMPLISHMENTS

3.5.1 INFRASTRUCTURE DEVELOPMENT COMPONENT. A total of 467 infrastructure subprojects under the Infrastructure Development Component were approved for implementation at a total cost of ₱5.06 Billion. This represents 99.59% of the revised targets with a 0.52% increase in cost. As of the Project's completion date, overall construction progress was 96%, where 133 irrigation and drainage facilities, 184 farm-to-market roads, 68 post harvest facilities (inclusive of warehouses, solar dryers, and the Agrarian Information and Marketing Center or AIM-C buildings), and 82 rural water systems were implemented.

These infrastructure subprojects were implemented at an average cost of ₱33.77 million per ARC. At an average of 1,177 households per ARC, these subprojects had an average investment cost of approximately ₱29,000.00 per HH per ARC or ₱6,000.00 per capita, at an estimate of five (5) members per household.

3.5.1.1 Irrigation and Drainage Facilities Subcomponent. The subcomponent covered 133 irrigation subprojects with a total area of 31,595.35 hectares or 99.65% of the revised target (Table 3-7).

Table 3-7. Project Performance Against Targets

Indicators	Original Target	Revised Target	Actual	% vs. Original	% vs. Revised
No. of Subprojects	193	130	133	68.91	102.31
Hectares	43,433.00	31,707.00	31,595.35	72.75	99.65

Of the 133 CIPs/CISs implemented, 64 subprojects (or 48%) are new communal irrigation projects (CIPs) covering 16,410.21 hectares of which, 49 subprojects (or 37%) were restored and rehabilitated (Communal Irrigation Systems or CIS) covering 11,453.66 hectares while 20 subprojects (15%) were developed groundwater irrigation or river pumping subprojects covering an area of 3,731.48 hectares. The total cost of this subcomponent was ₱2,866.86 million or 101.46% of the revised funding requirements. The average development cost per hectare was ₱90,737.00. A total of 12,687 farmer beneficiaries were covered by all the irrigation systems provided.

This subcomponent was implemented in partnership with NIA. Specifically, the identification of the irrigation subprojects was done by NIA in coordination with DAR and the ARC beneficiaries. NIA was responsible for the preparation of the feasibility study reports, detailed engineering and construction of all approved irrigation subprojects.

Compared with the original global target, the irrigation subcomponent was able to cover 69% of the 193 originally proposed irrigation subprojects covering 73% of the 43,433 hectares (Table 3-7) and utilizing 91.89% of the original total cost of ₱3,119.77 million (Table 3-6). The scaling down of the scope and targets was due to technical, institutional and right-of-way issues which led to the delisting of some originally proposed CIPs/CISs.

Of the on-going 11 irrigation subprojects affected by typhoons/floods and 1 subproject affected by delayed turn-over of the systems as of loan closing, 8 subprojects are expected to be completed by end of June 2007 and the remaining 4 subprojects are for completion within the year.

a. Planning and Pre-engineering. The revalidation of the ARCs using a set of criteria resulted in the replacement of 50 ARCs affecting 67 CIPs/CISs with an area of 16,339 hectares from the originally proposed 193 CIPs/CISs covering 43,433 hectares. The 67 delisted CIPs/CISs were found not feasible due to insufficient water resources, institutional problems, right-of-way issues and changes in site conditions such as salt intrusion, inundation, and weak and unstable dam foundation, among others.

A review of the remaining feasible subprojects (126) and the replacement subprojects (51 CIPs/CISs covering an area of 13,425 hectares) in the substitute ARCs for a total of 177 subprojects led to a reduction in the number of subprojects. Hence, 133 of the 177 subprojects were found technically and economically feasible in the final evaluation per the set criteria.

Based on Project records, the preparation of pre-engineering studies for most (47%) of the subprojects took 3-12 months, depending on the size and complexity of the subprojects and the capability of the field technical staff (**Table 3-8**).

Table 3-8. Duration of Feasibility Study Report and Development Plan Finalization

DURATION	NUMBER OF SUBPROJECTS	% Share
Less than 1 month	21	15.78
1 month - 3 months	30	22.55
More than 3 months - 6 months	32	24.06
More than 6 months - 12 months	30	22.55
More than 1 year	20	15.03
TOTAL	133	100.00

In terms of the finalization of the Detailed Design (D/D) and Program of Work (POW), NIA spent 3-12 months to finalize these documents for 85 subprojects or 64% of the total number of communal irrigation projects (**Table 3-9**).

Table 3-9. Duration of Detailed Design and Program of Work Finalization

DURATION	NUMBER OF SUBPROJECTS	% Share
Less than 1 month	14	10.52
1 month - 3 months	25	18.79
More than 3 months - 6 months	52	39.09
More than 6 months - 12 months	33	24.81
More than 1 year	9	6.76
TOTAL	133	100.00

The factors that contributed to the relatively long duration of pre-engineering works were the insufficient data submitted and limited manpower capability to work on the FSR and D/D, especially in regions with several proposed subprojects.

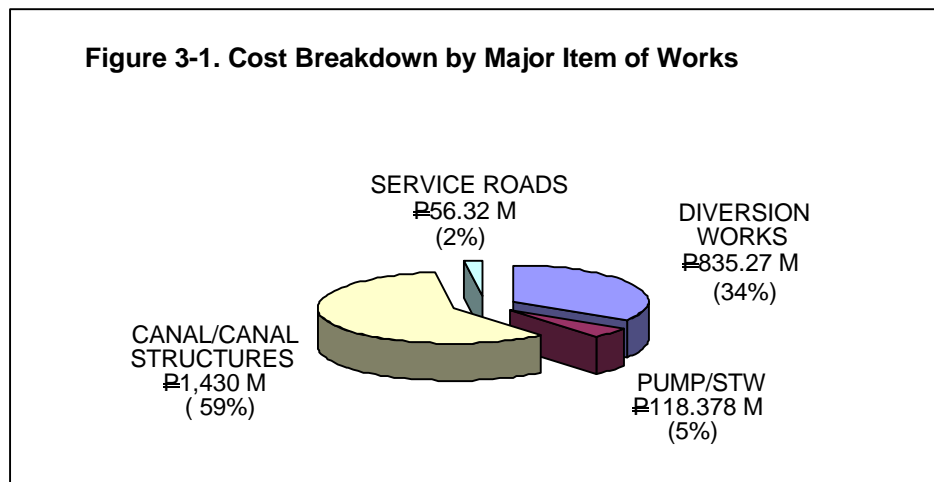
The Consulting Services provided technical assistance to the DAR, including the review of the technical documents such as FSR, D/D drawings, POW, Project Completion Report (PCR) and Turn-Over Documents (TOD). Likewise, review of land development plans proposed by the farmer beneficiaries, validation of infrastructure development plans for each ARC, preparation of implementation schedule and assistance in the monitoring of all work progress of each subproject were provided by the same.

b. Construction Stage. The implementation of the subprojects is categorized into three modes, namely: Force Account Works (FAW) which involved construction work undertaken by NIA's own workforce, equipment or other resources; Local Minor Contract (LMC) which involved contract works awarded through a bidding process, and a combination of FAW/LMC. Of the 133 subprojects implemented, 74% or 98 subprojects were implemented under FAW while the rest (35 subprojects or 26%) were implemented either under LMC or a combination of both modes (**Table 3-10**). Majority of the subprojects were constructed under FAW due to equity generation and amortization scheme considerations.

Table 3-10. Regional Breakdown of Subprojects by Mode of Implementation

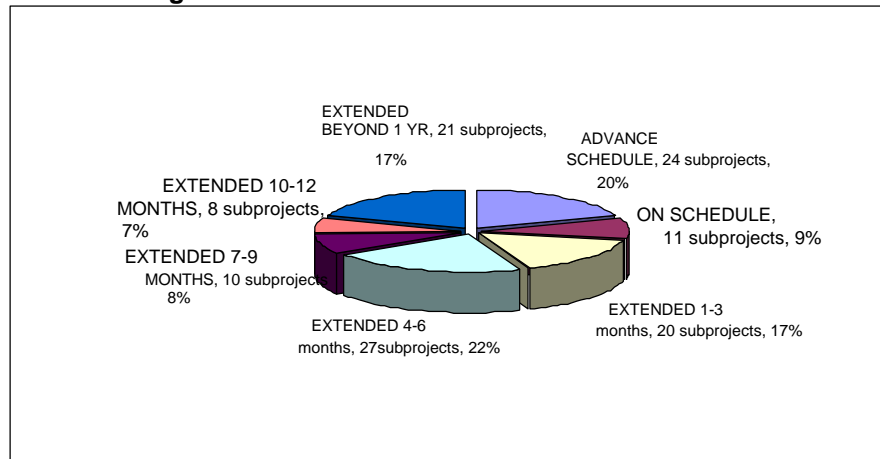
Region	Force Account Works (FAW)	Local Minor Contract (LMC)	Combined FAW/LMC	Total
CAR	14		1	15
I	7	2	1	10
II	3	1	5	9
III	8	2	5	15
IV	11	5	5	21
V	7		2	9
VI	7			7
VII	4			4
VIII	3			3
IX	5			5
X	5		3	8
XI	6			6
XII	7			7
CARAGA	11		3	14
Total	98	10	25	133
%	73.68	7.52	18.80	100

Figure 3-1 below shows the cost breakdown of the major items of works, excluding cost for construction survey, project facilities, contractors' profit and taxes. Almost 60% of the total direct cost was allocated for canal/canal structures for improved operational efficiency and lower maintenance problems and costs.



Of the 121 subprojects completed as of 31 March 2007, 24 subprojects or 20% were completed ahead of schedule, 11 subprojects or 9% were on schedule, 65 subprojects were completed less than one year beyond schedule and 21 or 17% were completed more than one year beyond the approved construction schedule (**Figure 3-2**).

Figure 3-2. Construction Schedule Performance



Delays in the implementation of the 86 subprojects were incurred mostly due to problems/issues related to procurement procedures, especially for subprojects employing a combined LMC/FAW. Significant delays were noted on 17 subprojects that experienced right-of-way problems due to standing crops, 2 subprojects with peace and order problems, 16 subprojects with typhoon and flood damages, 16 subprojects due to procurement procedures, 35 subprojects due to design changes and at times, the unavailability of NIA equipment.

Under the Project, various irrigation development schemes were adopted, namely: 111 subprojects or 83% adopted the run-of the river type irrigation, 20 subprojects or 15% were implemented using groundwater resource and river pumping while the remaining 2 subprojects or 2% involves only the provision of canalization (Mahinog CIS Phase II, Tacangon ARC in Camiguin) and rehabilitation of protection dike (Awao CIS, Awao ARC in Compostela Valley) (Table 3-11).

Table 3-11. Breakdown of Subprojects per Scheme of Development

Scheme	No. of Subprojects	Scheme	No. of Subprojects
Run-off the River Type			
Trapezoidal Weir	26	Checkgate	8
Teruvian Intake	27	Gater weir	4
Ogee Dam	20	Broad Crested Weir	1
Rubber Dam	2	Fixed Crested Weir	1
Intake	12	Boulder Brush Dam	1
Corewall	9		
Total = 111			
Shallow Tube Wells/River Pumping	20		
Others (Rehabilitation of Protection Dike and Canalization)	2		
Grand Total = 133			

In addition, a total length of 826.28 kilometers of canals in 118 subprojects were constructed and improved (Table 3-12). Out of this, 558.88 kilometers, or 68%, are main canals while 267.4 kilometers, or 32%, are lateral canals. Of the main canals, 72% or 402.87 kilometers are concrete-lined while 23% are earth canals. In this case, concrete-lined canals have been favored over earth canals in order to increase the efficiency of the irrigation systems and for easier

operation and maintenance, particularly on those along side hills and deep excavations. There were instances when critical conditions at the sites, such as potential seepage problems, high soil percolation rate, erosion and siltation, among others, require the use of concrete-lined canals. The on-farm facilities, such as ditches, were put up by the farmers are part of their equity to the Project. The remaining 15 subprojects were Shallow Tube Wells (STWs) which do not require canalization.

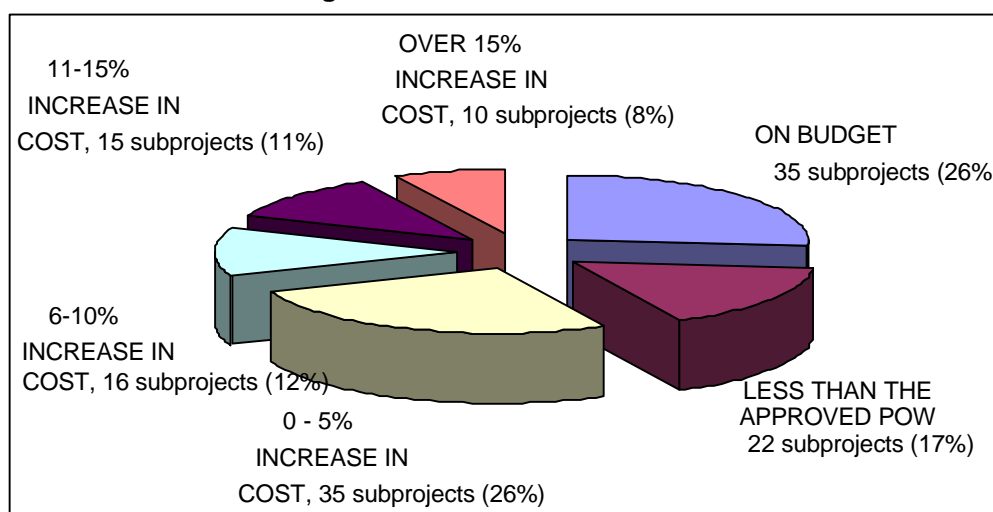
Table 3-12. Types of Main Canals Provided

Description	No. of kilometers	No. of Subprojects	%
Earth Canal			
Trapezoidal Earth Canal	126.62	20	23
Concrete Canal	402.87	93	72
1. Trapezoidal /Rectangular Concrete			
2. Trapezoidal /Rectangular Grouted Riprap Canal			
3. Concrete Hollow Blocks (CHB) Canal			
4. Concrete Flume Canal			
High-Density Polyethylene Pipes (HDPE)	29.40	5	5
Total	558.887	118	100

c. *Cost Performance.* The subcomponent was implemented based on the approved detailed design, construction schedule and POW concurred by NIA-PIO and the concerned DAR-Provincial PMOs. The total investment cost for infrastructure development component is ₱2,867 million, of which ₱2,505 million are Loan Proceeds and ₱362 million are GOP funds.

Thirty five (35) subprojects or 26% were completed within the approved budget while 22 subprojects, or 17%, were completed with costs less than the approved POW (**Figure 3-3**). On the other hand, 10 subprojects, or 8%, exceeded their budget by more than 15% due to additional costs for typhoon damages, changes in design, additional quantities based on actual site conditions and some technical adjustments in the design. The rest (66 subprojects) exceeded their budget by less than 15%, majority of which registered a 0-5% increase.

Figure 3-3. Cost Performance



The development cost per hectare, based on NIA policies and guidelines, is ₱150,000.00 for new projects (CIPs) and ₱100,000.00 for rehabilitation of existing systems (CISs). Based on the original funding requirement, the overall development cost per hectare is computed at ₱71,829. However, the delisting and substitution of ARCs resulted in not only a change of irrigation scope but of investment cost, as well, which increased to ₱89,115.00 per hectare.

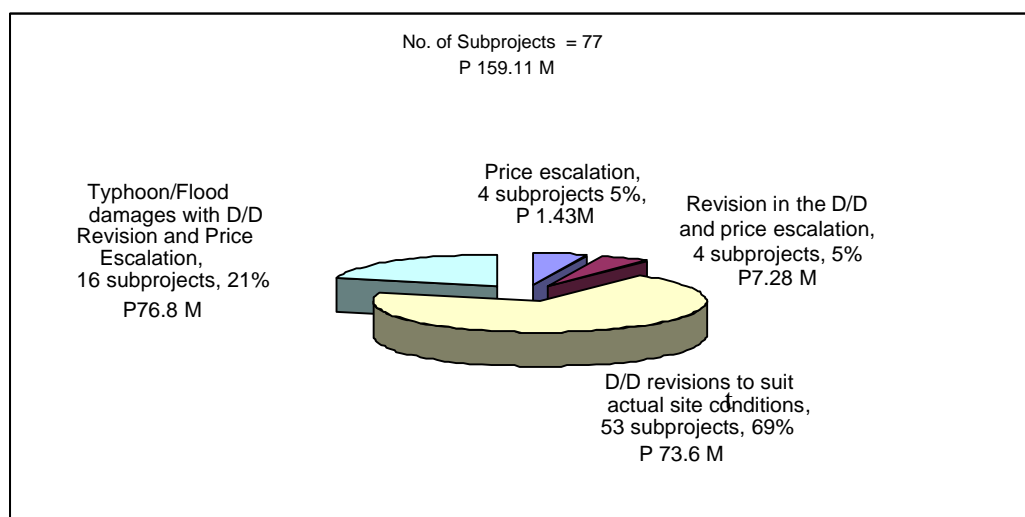
The actual area covered by the 84 CIPs/PCIPs, based on the original and revised targets, is 69.12% and 101.42%, respectively (**Table 3-13**). The improvement/rehabilitation of 49 CISs resulted to 107.45% and 98.16% accomplishment based on the original and revised targets, respectively. The costs indicated in the original target were all preliminary at that time as the detailed design has not been finalized then. Comparing the development cost per hectare with the original target for the 84 CIPs/PCIPs and 49 CISs, there is a significant increase in development cost at 33% and 51%, respectively. The increase in cost was due to change in site conditions, typhoon/flood damages, price escalation and revision of design, among others, that resulted to additional quantities and work items.

Table 3-13. Cost Performance Against Targets

Indicators	Original Target	Revised Target	Actual	% vs. Original	% vs. Revised
Hectares	43,433	31,707	31,595.35	72.75	99.65
CIP	29,141	19,859	20,141.69	69.12	101.42
CIS	10,660	11,848	11,453.66	107.45	98.16
Others (RIS,NIS)	3,632				
Cost (₱million)	3,119.77	2,825.56	2,866.86	91.89	101.46
CIP	2,229.95	2,020.90	2,029.63	91.02	100.43
CIS	505.69	804.66	837.23	165.56	104.05
Others (RIS,NIS)	384.13				
Overall Development Cost (₱'000) /ha	71.83	89.11	90.74	126.33	101.83
CIP	76.52	101.76	101.85	133.1	100.09
CIS	47.44	70.07	71.75	151.24	102.4
RIS/NIS	105.76				

During construction, majority of the increases in cost, amounting to ₱73.6 million, was noted in the design revisions, additional quantities and work item affecting 53 irrigation subprojects. Moreover, there were four (4) typhoons that occurred during the implementation of the subprojects which caused damages to the facilities and necessitated adjustment on the detailed design as well as design modifications. This resulted in price escalation for 24 subprojects amounting to ₱85.51 million (**Figure 3-4**).

Figure 3-4. Factors that Contributed to Increase in Cost



d. *Equity Generation.* The Project adopted the NIA Communal Irrigation Development policies that included farmers' participation, equity scheme and amortization. Under the Project, the farmers opted to avail of either a 10% equity scheme or 30% equity scheme. The IA/IG is required to contribute a portion of the direct chargeable cost of the subprojects in terms of labor, cash or materials. The cost for several subprojects were co-shared by the LGUs and Congressman through construction of lateral canals e.g. (Bayawan CIP, SDC ARC in Negros Oriental), improvement of main canal and lateral canals (So. Quinale CIS, Big Six ARC and Cabilogan CIP, San Vicente ARC both in Albay), protection dikes (Cabaruan CIS extension, Pinappagan ARC in Quirino), drainage canal and laterals (Santol-Polo-Concepcion IP, Santol-Polo-Bato-Concepcion ARC in Quezon), among others.

e. *Capability Building.* The Project conducted several workshops for the improvement of engineering capability of the field offices as listed in the Project Management section of this report.

f. *Turn-Over and PCR.* As of March 31, 2007, a total of 121 subprojects were completed. Ninety one (91) of the subprojects were already turned-over to the subject organizations. A total of 85 project completion reports were submitted to CPMO as of March 31, 2007.

For a detailed listing of this subcomponent's general features, actual accomplishments and implementation schedule by subproject, refer to Annexes 9-11.

3.5.1.2 Farm-to-Market Road (FMR) Subcomponent. Under the Project, a total of 184 FMR subprojects were funded with a total length of 641.168 kms, inclusive of 261.02 kms of structures such as portland cement concrete pavement (PCCP), box culverts, pipe culverts, spillways and bridges (**Table 3-14**), for a total investment of ₱2,016.11 million (**Table 3-4**) which includes construction and pre-engineering costs. Approximately 98,700 beneficiaries in 142 ARCs benefited from this subcomponent.

Table 3-14. Performance Against Targets

INDICATORS	ORIGINAL TARGETS	REVISED TARGETS	ACTUAL ACCOMPLISHMENTS
Number of Sub-Projects	128	178	184
Length (kms)	766.10	646.00	641.17

The FMR subcomponent was implemented in partnership with the DPWH with DAR as the lead agency. The identification and prioritization of subprojects were done by DAR in coordination with the LGUs and the ARC beneficiaries. On the other hand, DPWH was responsible for pre-engineering, construction and quality assurance of all the DAR-approved subprojects.

a. *Planning and Pre-engineering.* A total of 154 ARCs proposed for funding were validated by the CPMO/Consultant. As a result of said validation and review of Indicative Development Plans, 198 Road Development Plans (RDPs) or sectoral development plans were prepared and submitted to CPMO by the PPMOs/RPMOs. Of these,

Table 3-15. Duration of D/D and POW Approval

Duration	Number of DD/POW
Less than 1 month	8
1 month -3 months	29
More than 3 months - 6 months	45
More than 6 months -1year	69
More than 1 year	38

189 RDPs were approved for D/D and POW preparation. The rest were not recommended to be financed by ARISP due to technical and financial viability constraints.

The DPWH District/Regional Offices prepared and submitted 189 D/Ds and POWs. The Project spent a total of ₱37.40 million for these pre-engineering activities. On the average, the time required for the D/D and POW preparation by DPWH and approval by CPMO was about nine (9) months (**Table 3-15**).

The 189 approved D/Ds and POWs translated into 184 subprojects since five (5) D/Ds and POWs were treated as additional works of 5 subprojects (**Annex 12**), 85% or 156 subprojects were approved for prosecution by Contract while 15% or 28 subprojects were approved for implementation through Force Account or by Administration.

b. Construction Stage. A total of 184 FMR subprojects were funded with a total length of 641.168 kms. This represents 99 % of the approved revised target and 84% of the original approved target per L/A of 766.1 kms.

Of the 184 subprojects, 23% or 43 FMRs are road rehabilitation, 51% or 94 subprojects are road improvement, and, 26% or 47 subprojects are road opening and or new construction.

As earlier reported, the total obligations for FMR subcomponent was ₱2,016.11 million. Of this amount, ₱37.4 million was obligated for pre-engineering activities and the rest for construction activities (Table 3-16). However, there was an unfunded obligations of ₱17.62 million due to adjustments made per individual subprojects' project completion reports as shown below:

Table 3-16. Original and Actual Costs (in P' million)

	ORIGINAL COST	REVISED COST	ACTUAL COST
Total Obligations			2,016.111
Total Disbursements			1,998.488
Pre-engineering Cost			37.400
Construction Cost	1,882.993	2,004.490	1,961.088
LP	1,751.621	1,735.800	1,739.158
GOP	131.372	268.690	221.930

The total disbursement for FMR construction is ₱1,961.09 million comprised of ₱1,739.16 million LP and ₱221.93 million GOP (**Table 3-16**). The 4% increase in cost based on original budget was due to tax requirements which amounted to ₱156.27million or 70% of the total GOP for FMR component.

On the other hand, the decrease in length against the original target is attributable to the provision of major structures and concrete pavement which were deemed technically necessary to be provided in order to attain technical soundness, safety and durability of funded subprojects. Details of structures provided are shown in **Table 3-17**.

Table 3-17. General Features of Completed Subprojects

REGION	ROAD	STRUCTURES				
		Length (m)	PCCP (m)	RCPC (m)	RCBC (m)	Vented Spillway (m)
CAR	78,397	35,559	2,170	75	157	136
I	51,403	31,835	507	73	144	87
II	57,042	18,697	693	44		67
III	45,389	12,663	636	57	120	78
IV-A	51,634	31,975	757	2	22	58
IV-B	66,339	24,240	1,548	88	970	31
V	34,736	10,472	349	12	22	25
VI	29,814	8,744	426	52	151	
VII	13,186	3,579	216			
VIII	10,672	9,260	166	6		
IX	24,463	2,843	936	32	97	
X	35,795	4,353	326	37	34	22
XI	32,283	16,056	412	15		
XII	20,043	10,344	278	26		95
CARAGA	89,972	25,534	2,253	60	40	312
Total	641,168	246,154	11,673	579	1,757	911
Cost	957,440	543,303	62,234	24,522	54,607	97,054

On the overall, 38% of the total completed road length or 246.154 kms were provided with PCCP and 14.92 kms were provided with river/water crossing structures such as Reinforced Concrete Pipe Culverts (RCPC), Reinforced Concrete Box Culverts (RCBC), Vented Spillways and Bridges, accounting for ₱781.72 million or roughly 40% of the total investment for the subcomponent. Said structures were provided in order to minimize environmental hazards, enhance public safety and attain more durable facilities in areas with critical slope, drainage ways and flood-prone areas.

The FMRs constructed in CAR, Region IV-B and CARAGA accounted for 36% of the total road length provided (**Table 3-18**). The construction of FMRs in these three regions were relatively cost-intensive and accounted for around 40% of the total investment for FMR, due to high investment required for embankment, river crossing structures, protection works, solid rock excavation and high hauling cost, among others.

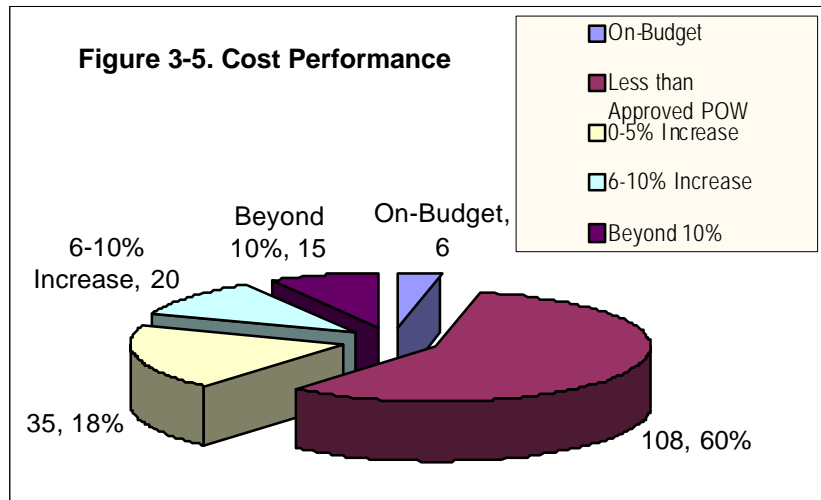
Table 3-18. Regional Distribution

Region	No. of ARCs	Length (m)	% Share	Average/ARC (m)
CAR	11	78,397	12.2	7,127
I	13	51,403	8.0	3,954
II	10	57,042	8.9	5,704
III	16	45,389	7.1	2,837
IV-A	15	51,634	8.1	3,442
IV-B	12	66,339	10.3	5,528
V	8	34,736	5.4	4,342
VI	7	29,814	4.6	4,259
VII	3	13,186	2.1	4,395
VIII	4	10,672	1.7	2,668
IX	7	24,463	3.8	3,495
X	7	35,795	5.6	5,114
XI	8	32,283	5.0	4,035
XII	6	20,043	3.1	3,341
CARAGA	19	89,972	14.0	4,735
Total	146	641,168	100	4,392

The length of roads provided per ARC ranged from 2.6 kms. to 7.1 kms. while the average is around 4.4 kms. per ARC. Majority of the FMRs constructed served as the ARCs' access from their farm to the market and to centers of social services, such as hospitals and schools. Some of

the newly-constructed roads along the paddy fields or traversing vast tract of distributed but undeveloped land served as production roads for the ARBs.

c. *Time and Cost Performance.* In terms of effectiveness, the FMR subcomponent was implemented by the DPWH based on approved D/D, POW and agreed-upon construction schedule. Of the 181 completed subprojects as of March 31, 2007, 105 subprojects, or 59%, were completed with cost lower than the approved original POW (Figure 3-5).



The six (6) subprojects, or 3% of the total, which were completed on budget are shown in Table 3-19.

On the other hand, 8% or 15 subprojects were completed by DPWH with more than 10% increase in cost. The increase in cost were primarily due to additional embankment/excavation works, river crossing structures and protection works that were found necessary based on actual field condition.

The rest, 55

Table 3-19. Completed on Budget

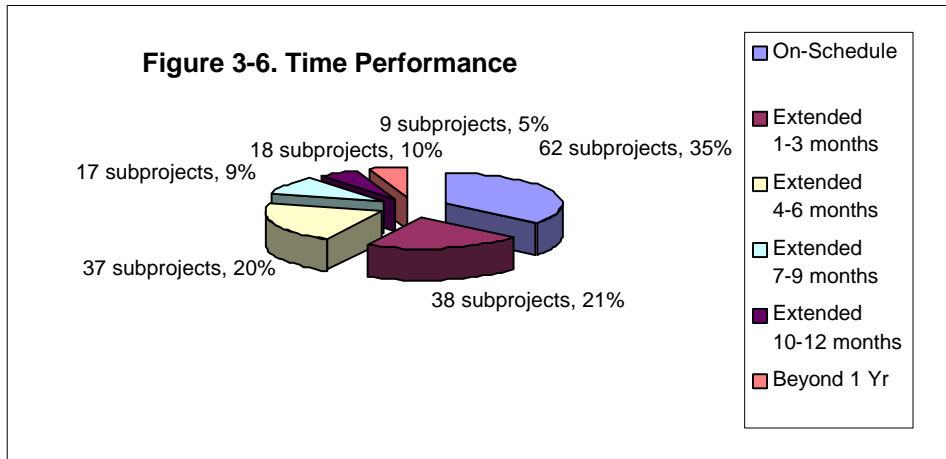
subprojects or 30% of the total, were completed within the allowable 1-10% cost increases due to

Region	Province	Name of ARC	Name of Sub-Project
III	Bataan	Balanga BSTC	1. Hacienda Lourdes Road
IV	Batangas	CANASID	2. San Isidro-Canuyep Brgy. Road
V	Masbate	TAJAM	3. Jarmorawon Road
			4. Tagbon Road
	Sorsogon	Casiguran Cluster "B"	5. Imp'vt of Inlagadian-Stio Himaluto Road
CARAGA	Surigao del Sur	Hinatuan	6. Tandawan-Rizal-Road

discrepancies between the actual site conditions, per results of the as-staked survey against the approved D/D and some minor additional works.

In summary, the cost increase on a per-kilometer-basis compared to original approved parameters is about ₱600,000.00 or 24% increase over the ₱2.46 million per km. The increase is reasonable considering that 40% of the cost was used to cover the construction of necessary structures as discussed above.

With regard to time/schedule performance, 35% or 62 subprojects, out of 181 completed subprojects as of March 31, 2007, were completed on schedule (Figure 3-6). The rest were completed beyond the original schedule.



The implementation of nine (9) subprojects were extended beyond one year due to restoration works for damages caused by typhoons, inclement weather and technical constraints in some subprojects implemented by DPWH through Administration.

d. Cost-Sharing Arrangement. As earlier discussed, the Project financed the pre-engineering and construction cost of all the 184 subprojects while the Municipal LGUs shouldered the road right-of-way negotiation and/or acquisition and O&M costs.

Inasmuch as the investment required for the development of ARC cannot be solely shouldered by the Project, cost-sharing by the provincial/municipal/barangay LGUs and district representatives were sought in terms of scope or complementary projects.

e. Quality Assurance and Turn- Over. FMR subprojects were inspected by the Regional Quality Assurance Unit (QAU) of the concerned DPWH-Regional Offices before each subproject are declared completed and ready for final inspection by DAR, DPWH and LGUs. This requirement ensured that the quality of the ARISP II-funded FMRs is within the approved standards and specifications before the turn-over to the Municipal/Barangay LGUs.

As of March 31, 2007, a total of 108 subprojects were already turned-over to the concerned Municipal/Barangays LGUs for proper O&M. The annual maintenance fund is part of the LGUs cost-sharing/counterpart for the subproject and is assured through Sanggunian Bayan Resolution.

For a detailed listing of this subcomponent's general features, actual accomplishments and implementation schedule by subproject, refer to Annexes 12-14.

3.5.1.3 Post-Harvest Facility Subcomponent. Based on the revised target, the PHF subcomponent was able to cover 103% or 68 units of post-harvest facilities, utilizing ₱80.402 million or 101.01% of the revised project cost (**Table 3-20**). Of the 68 facilities provided, 48 are classified as service-type, 14 are business-type, 3 are solar dryers, 1 is a trading post and 2 are AIM-Cs.

A service-type PHF serves as facility for drying and temporary storing of produce while a business-type includes other services such as trading and permanent storage of produce.

The facilities are managed by 66 subject cooperatives and two (2) cooperative-federations. The total capacity of the warehouses constructed is 88,750 cavans while the solar dryers have a combined area of 19,439 square meters.

Table 3-20. Performance Against Targets

Indicators	Original Targets	Revised Targets	Actual Accomplishments	Against Original Targets (%)	Against Revised Targets (%)
No. of Subprojects	122	66	68	55.74	103.03
Capacity Warehouse (sq.m.)	8,553	-	3,479	40.67	-
Solar Dryer (sq.m.)	38,099	19,295	19,439	51.10	100.75

Based on the original target of 122 units, the 68 post-harvest facilities represents 55.74% with a total warehouse area of 3,479 sq.m. or 41% of the original 8,553 sq.m. warehouse area, utilizing 52.77% of the ₱152.359 million budget. The rest were not pursued either because the proposals were not feasible or needed further study.

The PHF subcomponent was implemented in partnership with NIA. Specifically, the identification of the PHFs was done by DAR in coordination with the ARC beneficiaries, and NIA for volume of paddy production in the area with the guidance of DAR. DAR subsequently prepared the indicative, sectoral and business plans of the PHFs while NIA prepared the site development plans, detailed design, POW and the actual construction of all approved PHFs.

The implementation of the subcomponent was based on a standard design for all types of PHFs that suited the requirements of the cooperatives. A standard POW for each type was designed. Unit cost depended on the prevailing prices of construction materials and labor costs in the area where the PHFs were built.

Under the Project, a typical PHF is a warehouse and solar dryer/pavement. However, as a result of the validation, the type of PHF provided were based on the type of operation the subject cooperative is capable to pursue: (1) High value-added operation; (2) ordinary business operation; and, (3) service operation.

The required capability of the cooperative was the deciding factor for the provision of PHF by type of operation (**Table 3-21**):

Table 3-21. Types of PHF Operation

Type of Operation	Required Capability of Cooperative	Facilities Provided
High Value Added Business	<ul style="list-style-type: none"> ▪ Capable of generating equity internally ▪ Capable of generating capital internally and have already availed external fund sources from LBP or others with good track record for purchase of agricultural products ▪ High business management capability 	<ul style="list-style-type: none"> ▪ Solar dryer ▪ Permanent warehouse ▪ Office
Ordinary Business Operation	<ul style="list-style-type: none"> ▪ Capable of generating equity internally and externally ▪ Capable of generating capital internally and also capable of availing external fund sources such as LBP for purchase of agricultural products ▪ Average business management capability 	<ul style="list-style-type: none"> ▪ Solar dryer ▪ Temporary warehouse (Service Type) or lower capacity of permanent warehouse (Business Type) ▪ Office, if smaller capacity of Business Type required
Service Operation	<ul style="list-style-type: none"> ▪ Capable of generating equity internally and externally ▪ Basic cooperative management capability 	<ul style="list-style-type: none"> ▪ Solar dryer ▪ Temporary warehouse (Service Type)

a. *Planning and Pre-engineering.* Out of the 122 original target, 93 PHFs were validated. As a result of validation or review by the CPMO of the Indicative Development Plans of 93 PHFs, 81 were selected and proceeded with the preparation of sectoral development plans and business plans by the cooperative. Out of this number, 68 were recommended for D/D and POW preparation while the remaining 13 units were not pursued due to a waiver issued by the cooperative in view of existing PHF in the area, inability of the cooperative to provide equity, non-availability of lot to construct the facility and the low organizational maturity level of the cooperatives.

The NIA Provincial Offices prepared and submitted D/Ds and POWs for said 68 subprojects. The table below indicates that, on the average, the time required for the D/D and POW preparation by NIA and approval by CPMO was more than one (1) year (**Table 3-22**).

Table 3-22. Duration of DD/POW Preparation

DURATION	NUMBER OF SUBPROJECTS
Less than 1 month	1
1 month -3 months	4
More than 3 months-6 months	19
More than 6 months-1 year	18
More than 1 year	26
TOTAL	68

The factors that contributed to the long duration in the preparation of the DD/POW is the delay in the submission of institutional requirements, such as PHF business plans, site development plans, certification of initial cash deposit of the cooperative issued by the bank/statement of trust account and the land title of the site/deed of sale in the name of cooperative. Likewise, the delay in the submission of some of the cooperatives' Board of Directors Resolution confirming the classification of PHF to be availed of led to the lengthy approval process.

b. *Construction Stage.* Under the Project, there were forty-eight (48) service-type PHFs constructed, of which, 40 are classified as Service Type 36-1 with a warehouse floor area and capacity of 36 sq.m. and 750 cavans capacity, and eight (8) are classified as Service Type 36-2 which has a warehouse floor area and capacity of 72 sq.m. and 1,500 cavans capacity warehouse. Both types have complementary 450 sq.m. solar dryer.

On the other hand, 20 business-type facilities were provided. Of this number, ten (10) are classified as Business Type Case 1-3; two (2) are Business-Type Case-2; one (1) is Business-Type Case-1; and two (2) are Business Type Case 1-B. This includes three solar dryers and two AIMCs (**Table 3-23**).

Table 3-23. Types of PHFs Provided

Type of Facilities	Number of Facilities Provided	Warehouse		Office (sq.m.)	Solar Dryer (sq.m.)
		Capacity (cavans)	Area (sq.m.)		
Service Type Case 36-1	40	750	36	-	48-450
Service Type Case 36-2	8	1,500	72	-	180-450
Business Type Case 3	10	1,750-2,000	60	48	180-450
Business Type Case 2	2	3,500	105	49-84	450
Business Type Case 1	1	7,500	173	75	286
Business Type Case 1-B	2	10,000	240	84	100-450
Solar Dryer	3	-	-	-	230-450
AIM-C	2			144	
Total	68				

As in the irrigation subcomponent, implementation of the PHF development subcomponent was undertaken through FAW or LMC. Of the 68 subprojects, 71% or 48 subprojects were implemented under FAW while 29% or 20 subprojects were implemented through LMC (Table 3-24).

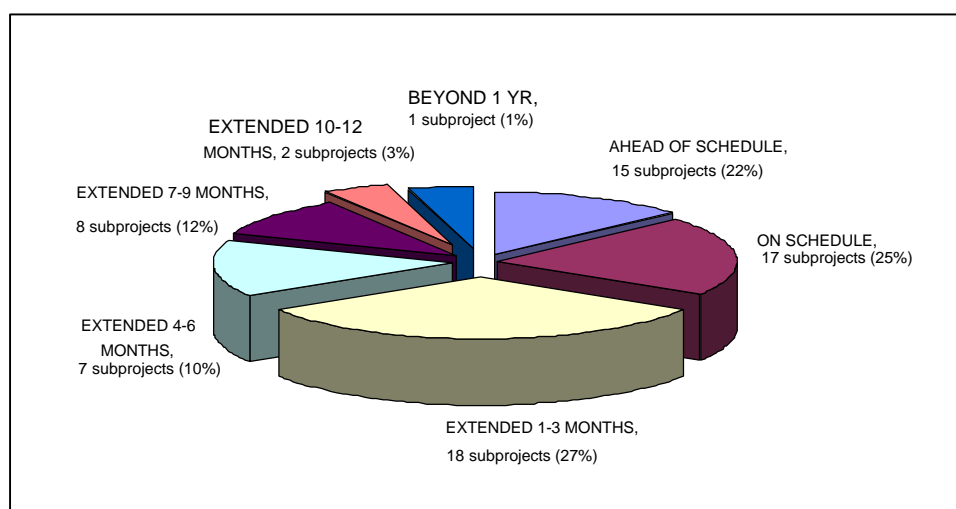
Table 3-24. Mode of PHF Implementation

Region	Force Account Works	Local Minor Contract	Total
CAR	3	1	4
I	1	5	6
II	8	1	9
III	2	4	6
IV	3	6	9
V	2	1	3
VI	4	0	4
VII	1	1	2
VIII	2	0	2
IX	4	0	4
X	6	0	6
XI	0	0	0
XII	1	0	1
CARAGA	11	1	12
Total	48	20	68
%	70.58	29.41	100

Majority of the subprojects were under FAW which enabled the proponent-cooperative to fully generate the 30% equity by working as laborers during construction.

Of the 68 subprojects completed, 22% or 15 subprojects were completed ahead of schedule, 25% or 17 subprojects were on schedule while only one subproject was completed more than one year of the approved construction schedule (Figure 3-7). The construction of the remaining 53% or 36 subprojects were extended by an average of a month to a year. The reasons for this were traced to delays encountered in site development activities undertaken by the stakeholders or the LGUs, in putting up of the initial cash deposit of the cooperative as their equity, in securing the land title for the lot and the prolonged procurement process.

Figure 3-7. Construction Schedule Performance



c. *Cost Performance.* The subcomponent was implemented based on the approved detailed design and POW together with the construction schedule concurred by NIA-PIO and DAR-PPMO. In terms of the Loan Proceeds, there was an increase of 19% based on the revised cost due to the cost of the additional AIM-Cs constructed while GOP increased by 185%. Overall, the actual average unit cost of the PHFs has a minimal increase of ₱33,529.00 or 103% based on the original target and higher by ₱161,201.00 or a 116% based on the revised cost.

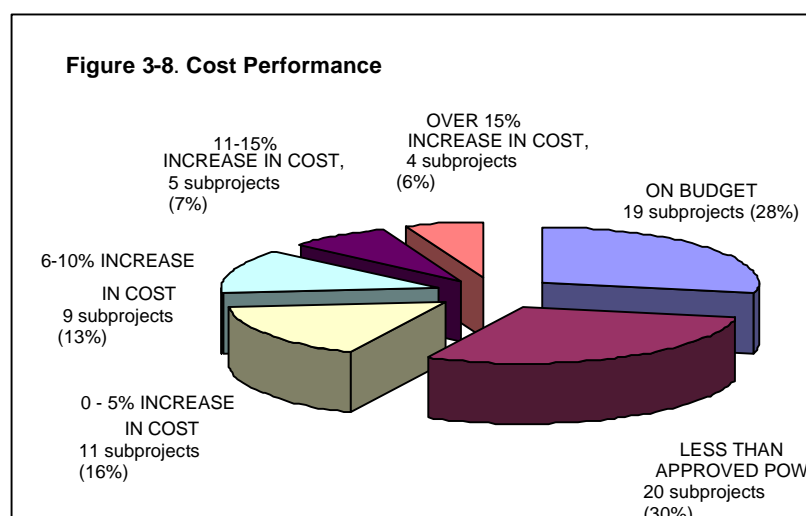
The development cost per unit compared against the original and revised targets are as follows (Table 3-25):

Table 3-25. Development Cost

Indicators	Original Targets	Revised Targets	Actual Accomplishments	Against Original Targets (%)	Against Revised Targets (%)
No. of Subprojects	122	66	68	55.74	103.03
Cost (₱M)	152.359	79.588	80.402	52.77	101.02
LP	122.454	56.442	60.186	49.15	106.63
GOP	29.905	23.156	20.216	67.60	87.30
Development Cost (₱'000)/unit	124.88	120.59	118.24	94.67	98.05

Of the 68 subprojects, 28% or 19 facilities were completed on budget, and 30% or 20 subprojects were completed utilizing less than the approved POW. On the other hand, 6% or 4 projects exceeded their budget by more than 15% due to changes in design, additional quantities based on actual site conditions and price escalation (Figure 3-8).

d. *Equity Generation Scheme.* Based on Project Guidelines, each subject cooperative contributed 30% of the chargeable cost (defined as the costs of labor, materials and equipment used in the construction works) out of the direct cost as equity. The remaining balance of the direct and indirect costs (administrative and engineering expenses) were covered by the Project. The consolidated amount generated by the subject cooperatives



amounted to ₱12.9 million or 84% of the ₱15.4 million target equity with the balance to be paid by the subject cooperatives within a grace period of one (1) year after turnover. The LGUs also contributed by financing the land development activities and provision of lot where the facilities are constructed.

e. *Turn Over and Project Completion Reports.* As of March 2007, 88% or 60 PHFs of the 68 completed PHFs were turned over and accepted by the subject cooperatives. Turnover of the remaining eight (8) are still subject to final cost reconciliation. A total of 51 Project Completion Reports were submitted to CPMO with the rest still under preparation.

For a detailed listing of this subcomponent's general features, actual accomplishments and implementation schedule by subproject, refer to Annexes 15-17.

3.5.1.4 Rural Water Supply Subcomponent. Under the Project, a total of 82 RWS subprojects were funded, composed of 18 point source or Levels I systems and 64 communal faucets or Levels II systems, for a total construction investment of ₱99.62 million benefiting 18,586 households in 80 ARCs.

Table 3-26. Performance Against Targets

	ORIGINAL TARGETS	REVISED TARGETS	ACTUAL ACCOMPLISHMENTS
Number of Subprojects	66	80	82
Total Obligations (in P'million)			102.745
Total Disbursements (in P'million)	107.941	94.190	102.290
LP	96.901	91.520	99.620
GOP	11.040	2.670	2.670

The RWS subcomponent was implemented in partnership with the Municipal LGUs with DAR as the lead agency. The identification and prioritization of subprojects was done by DAR in coordination with the LGUs and the ARC beneficiaries. On the other hand, the MLGU was responsible for pre-engineering, construction and quality assurance of all the subprojects while the DAR-PPMO implemented the institutional development component.

a. Construction. Under the Project, a total of 82 RWS subprojects were funded and completed. This represents 102% of the approved revised target and 124% of the originally approved target of 66 RWS subprojects (**Table 3-26**). The actual accomplishment for RWS component exceeded the original-approved targets by 24% or by 16 subprojects, 15 of which were level II systems, for a total investment from the Project of ₱102.29 Million or 95% of the original-approved amount. The reported unfunded obligations of ₱0.46 million was due to the adjustment made on actual POW per individual PCRs.

The increase in the number of subprojects as against the number of original targets was realized due to high demand for rural water supply facilities and the readiness of the concerned Municipal LGUs to provide 20-30% equity/counterpart fund depending on their income classification.

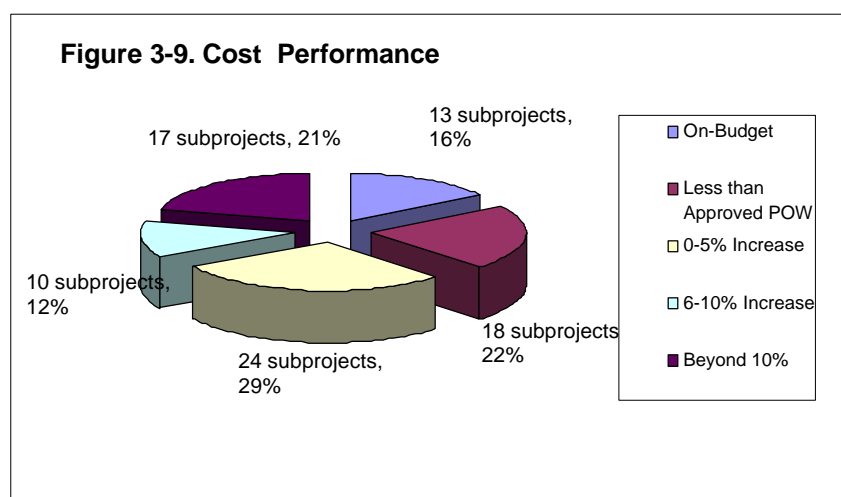
The total equity generated from the LGUs amounted to ₱36.16 Million which is equivalent to 37.42% of the Project's investment in RWS subcomponent.

Table 3-27. General Features of Completed Subprojects

Region	RWS Development Level		Beneficiaries		Water Source		Pipe Length (m)		No. of Public Faucets
	Level I	Level II	Initial	Projected	Spring	Deep well	Trans-mission	Distribution	
CAR		4	585	656	4		14,680	4,929	83
I		4	1,058	1,185	3	1	6,451	21,320	189
II	5	4	1,496	1,677	2	7	5,230	14,404	141
III	2	7	2,468	2,773	3	6	4,824	26,980	384
IV-A	2	5	1,465	1,644	1	6	1,781	13,124	217
IV-B	3	4	1,267	1,423	3	4	1,737	22,280	191
V	2	2	1,027	1,150	2	2	2,378	5,245	79
VI	1	1	399	448	1	1	2,256	1,238	19
VII	1	1	823	922	1	1	950	2,674	18
VIII		3	691	776	2	1	3,379	8,403	124
IX		6	910	1,012	4	2	10,279	22,668	172
X		5	841	943	4	1	2,461	24,011	149
XI	2	7	2,021	2,266	4	5	6,237	31,477	263
XII		3	969	1,086	2	1	2,338	12,309	116
CARAGA		8	2,566	2,604	5	3	7,900	31,629	466
Total	18	64	18,586	20,565	41	41	72,881	242,691	2,611

The 82 RWS subprojects, composed of 18 Levels I and 64 Level II systems, were designed and implemented to serve the present 18,586 households and the projected 20,565 households. Fifty percent (50%) of subprojects are gravity-type with natural springs as water source and 50% are drawing water from deep wells. The table below shows the general features of completed RWS subprojects and their regional distribution.

b. Time and Cost Performance. Of the total number, 13 subprojects or 16%, were completed on budget while the rest were completed either less than the approved POW, with 1-5% increase in cost, cost increase beyond 6% but not exceeding 10% or exceeded the cost beyond 10% (**Figure 3-9**).



The 13 subprojects completed on budget were the following:

Table 3-28. Subprojects Completed on-Budget

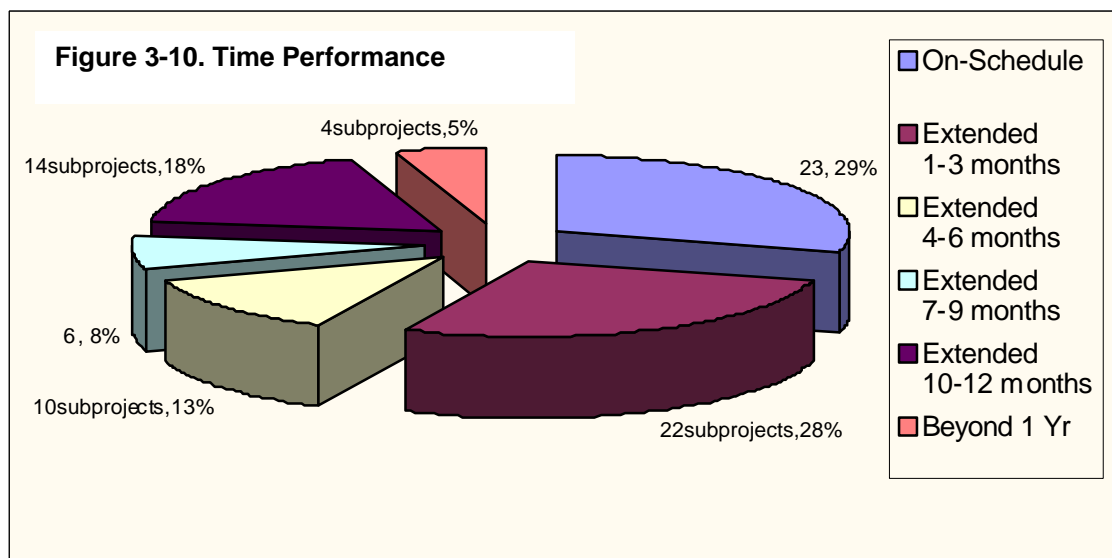
Region	Province	Name of ARC	Name of Subproject
CAR	Abra	Villaviciosa	1. Villaviciosa RWS
I	La Union	Pubapa	2. Pubapa RWS
II	Isabela	Capirpiriwan	3. Capirpiriwan RWS
IV-A	Cavite	Pacheco	4. Pacheco RWS
IV-B	Oriental Mindoro	Gloria Cluster A	5. Brgy. Malamig RWS
	Palawan	Venturanza	6. Amas, Saraza, Oring-oring RWS
V	Camarines Sur	San Antonio	7. San Antonio RWS
IX	Zamboanga del Norte	GLIVS	8. Guinles RWS
	Zamboanga del Sur	Sta. Cruz	9. Sta. Cruz RWS
X	Misamis Occidental	Siloy	10. Siloy RWS
XI	Davao Oriental	SANVIDAKINSI	11. Dapnan RWS
			12. San Victor RWS
CARAGA	Surigao del Norte	Malimono	13. Pili RWS

On the other hand, 18 subprojects exceeded the originally approved construction cost beyond 10% of original POW. The increase in cost for these subprojects were due to additional transmission line required, additional depth of well development, upgrading of design and additional faucets, among others. The provision of the same was found technically necessary during the construction stage based on actual site conditions.

Under the Project, the actual average investment per household for a Levels I and II RWS is ₱2,461.00 and ₱6,735.00, respectively. The cost of Level I systems ranged from ₱400,000.00 to

₱1.6 million, while the Project invested between ₱700,000 to ₱1.86 million for Level II systems, depending on the number of pumps, households served and type of facilities provided.

With regard to schedule control in construction management, 29% or 23 subprojects, out of 79 completed subprojects as of March 31, 2007, were completed on-schedule and the rest were completed beyond the original schedule (**Figure 3-10**).



Implementation of four (4) subprojects was extended beyond one year due to problems of insufficiency of water source and low technical capabilities and lack of engineering staff in some MLGU's.

c. Cost Sharing Scheme. As earlier discussed, the RWS subcomponent adopted the following cost-sharing scheme:

Table 3-29. Cost-Sharing Scheme of LGUs

Municipal Class	Project Share	LGU / WUAs Share
1 st , 2 nd , 3 rd	70%	30%
4 th , 5 th , 6 th	80%	20%

The actual equity generated was about 30% of the total investment for the RWS subcomponent. The equity generated is higher than the required NG: LGU cost sharing ratio, which is an indication of the capacity of participating LGUs to raise equity for RWS subprojects and the high priority they give to provision of this component.

d. Test-Run and Turn-over. In accordance with the Project's policy, all completed subprojects were subjected to final inspection and test-run to ensure that all works have been completed, in conformity with the drawings and specifications.

As of March 30, 2007, a total of 41 completed RWS were already turned-over from DAR-PPMOs to MLGUs and subsequently turned over by MLGU's to the subject organizations. The rest, 41 sub-projects are in various stages of turn-over and commissioning.

For a detailed listing of this subcomponent's general features, actual accomplishments and implementation schedule by subproject, refer to Annexes 18-20.

3.5.2 INSTITUTIONAL DEVELOPMENT COMPONENT. For non-infrastructure component, all ARCs targeted for assistance under the Project received various forms of institutional development interventions such as assistance to farmers' cooperatives (primary and federations), irrigators associations and groups, and rural water associations and groups through the provision of training programs and other related CPMO-initiated activities such as agricultural support development assistance, microfinance technology dissemination, financial intermediation, credit facilitation and agrarian information and marketing centers.

3.5.2.1 Overall Performance. Under the Project, a total of 403 subject-organizations were organized and/or strengthened, or 103% of the revised targets. In terms of number of ARCs covered, the 150 covered ARCs represent 100% of the revised targets (**Table 3-10**).

Table 3-30. Performance Against Targets

	ORIGINAL TARGETS	REVISED TARGETS	ACTUAL ACCOMPLISHMENTS	AGAINST ORIGINAL TARGETS	AGAINST REVISED TARGETS
Cooperatives	150	150	152	% 101.33	% 101.33
Irrigators' Associations/Groups	193	161	169	87.56	104.97
Water Users' Associatons/Groups	66	80	82	124.24	102.50
TOTAL	409	391	403	98.53	102.93
ARCs	150	150	150	100.00	100.00

The component resulted in significant improvements in the different organizational and operations management aspects of the IAs/IGs, cooperatives, WUAs/WUGs and Barangay LGUs employing several institutional development modalities. The modalities include: (1) coaching/hand-holding assistance by Development Facilitators (DFs) of DAR, Cooperative Development Workers (CDWs) of LBPI, Institutional Development Officers (IDOs) of NIA and Local Development Workers (LDWs) of MLGUs; (2) formal training; and; (3) network/linkage-building, among others. These were found to be effective in building the capability of the subject-organizations to operate and manage communal irrigation systems, post harvest facilities (PHFs), rural water supply and other businesses and services of the cooperatives. Likewise, the SOs were able to engage in various agri-support subprojects introduced.

For specialized interventions such as agri-extension/business development, PHF development and microfinance assistance, partnership was forged with the University of the Philippines Los Banos Foundation, Inc. (UPLBFI)-Ugnayan ng Pahinungod/Oblation Corps (UP-OC), DA-Bureau of Post-Harvest Research and Extension (BPRE) and Micro-finance Institutions (MFIs) such as Baba Foundation, Inc. of Davao City and Hometown Corporation of Santiago City, Isabela

3.5.2.2 Cooperative Development

a. Strengthening of Primary Cooperatives. The following approaches were applied to strengthen the cooperatives:

a.1 Technical Assistance in Collaboration with DAP. The Development Academy of the Philippines (DAP), as the National Partner Institution (NPI), acted as financial conduit to and managed the services of 47 Local-Based Partners Institutions (LBPIs), undertook cooperative development intervention in 146 cooperatives, conducted results monitoring and evaluation of technical services of the LBPIs, developed a database system and conducted baseline survey.

The DAP, with the assistance of the DAR Provincial PMOs, sub-contracted the activity to forty-seven (47) organizations, specifically to 43 non-government organizations (NGOs) and four (4)

State Universities and Colleges (SUCs). These 47 LBPIs deployed one CDW per cooperative or a total of 146 CDWs who rendered technical and coaching/mentoring assistance to the subject-cooperatives.

Specifically, the CDWs organized/strengthened and undertook capacity-building based on action plans, conducted organizational assessment to focus the required interventions and technical assistance to the cooperatives in the preparation of Cooperative Development Action Plan (CDAP), PHF business development, work and financial plans.

a.2 Capability-Building of Cooperatives through Training Programs. This is one of the development interventions designed to bring about changes in knowledge and skills of cooperative-member participants possibly, attitudes that would result in changes in their job behavior to impact on the over-all performance of the subject organizations, in particular, and in the development of the ARCs, in general.

Training courses for cooperative development was administered by DAP through the LBPI from December 8, 2000 until March 31, 2004 and DAR ARISP II CPMO for trainings requested by the PPMOs on limited scale starting April 1, 2004. The DAP developed a Training Needs Analysis (TNA) Manual that served as guide in assessing the training needs of the cooperatives and in coming up with Local Cadre Development Plan (LCDP) which listed down the capability-building needs of and possible interventions for the cooperatives. Based on the CDAPs, a total of 889 training courses were targeted, however, 1,241 training interventions were actually conducted, exceeding the target. The DAP conducted 926 trainings courses, 15 training courses co-shared with technical providers and 233 were implemented by DAR-PPMOs. The rest (67 courses) were implemented by other training institutions.

DAP, through the LBPIs, has conducted eleven (11) types of training courses which were delivered using different modalities, e.g., formal/classroom training, coaching and mentoring (**Table 3-31**). Of the 926 training courses, 395 of which were done in formal/classroom type while 531 were done through coaching/mentoring as part of the regular advisory services of the LBPIs. The average cost of the training provided by DAP was estimated at ₱13,049.00 per training course.

Table 3-31. Types of Training Courses Conducted by DAP

Type	Formal/ Classroom Training	Coaching and Mentoring	Total
Organizational Development	19	65	84
Leadership	78	58	136
Vision, Mission, Goals/Strategic Planning	61	25	86
Trainer's Training	22	12	34
Policies, Systems and Procedures	53	67	120
Resource Generation	6	44	50
Financial Management	73	81	154
Business Development	35	72	107
Credit Management	23	24	47
Marketing	5	30	35
Others	20	53	73
TOTAL	395	531	926

In addition, the CPMO supported training courses for cooperatives. The training, which included cross-visits to successful cooperatives, were conducted by the Provincial PPMOs jointly with institutional partners. A total of 1,089 training activities were conducted for the nine (9) types of training programs with 27,058 participants (**Table 3-32**).

Table 3-32. Types of Training Courses Conducted by DAR CPMO

Types of Training	Conducted		Participants	
	Number	Percent (%)	Number	Percent (%)
Organizational Development	583	53.6	17,203	63.6
Capital Build-up and Savings Mobilization	23	2.1	756	2.8
Bookkeeping, Accounting and Financial Management	118	10.8	1,710	6.3
Business and Enterprise Development and Management	114	10.5	2,062	7.6
Credit Handling and Facilitation	32	2.9	535	2.0
Agricultural Development	193	17.7	4,271	15.8
Grains and Post-harvest Technology	7	0.6	123	0.4
Marketing	6	0.6	86	0.3
Networking and Linkage/Alliance Building	12	1.1	312	1.2
TOTAL	1,088	100.0	27,058	100.0

Majority of the training courses conducted were under the organizational development category with 53.6% of the total training courses conducted and 63.6% of the total participants.

a.3 Improvement in COCI Indicators. The Cooperative Organizational Capacity Index (COCI methodology, a project-focused indicator to gain fuller and more grounded understanding of the current state and capacity of its pre-selected subject organization, was employed in determining the level of maturity of cooperatives. Compared against the targets, substantial improvements in the organizational maturity of cooperatives was noted, particularly on COCI) indicators such as membership, Capital Build-Up (CBU) and savings.

Targets were surpassed for the following indicators:

- *Membership:* The aggregate membership of 146 cooperatives has increased from 27,569 to 46,332 or a 168.1% increase, exceeding the target by 156%. This translates to an average of 317 members per cooperative which is higher than the baseline figure of 189 members per cooperative.
- *CBU:* the aggregate CBU of 146 cooperatives increased from ₱92.2 million to ₱135.8 million or 147.2% increase, surpassing the target by 136.0%.
- *Savings:* The aggregate savings of 146 cooperatives increased from ₱34.4 million to ₱65.7 million or a 191.0% increase, surpassing the target of 163.0%.
- *Core Management Team (COMAT):* 97% (142 cooperatives) of the 146 cooperatives have their respective COMAT on-board. Of these, 59 cooperatives or 42% are with complete COMAT, either on a part-time or full-time status, while 83 are with incomplete COMAT. Four (4) cooperatives are with no COMAT.
- *Business Operations:* Among the 146 cooperatives, 135, or 92%, have on-going business/es. The types of businesses engaged in are generally in the areas of credit assistance, consumer store operation, farm machineries rental, farm inputs trading, warehouse/drying operations, palay trading, piggery, rice/corn milling, trucking/hauling, catering, copra trading, poultry, among others.
- *Cooperative Services:* 101 cooperatives have several types of on-going services for their members. There has been a decrease in the number of cooperatives with no services from 78 to 45 cooperatives. Most of these services are in the form of scholarships/educational assistance, providential loans, emergency loans, medical assistance, and mortuary aid.

- *Policies, Systems and Procedures (PSPs)*: All the 146 cooperatives have formulated their respective PSPs. However, only 96 or 66% have their PSPs manualized and updated. The rest are either incomplete or in the process of updating these.
- *Books of Account*: Of the 146 cooperatives, 135 have managed to keep all of their books of accounts up-to-date. This reflects a very significant improvement when compared to the baseline figure of only 83 cooperatives which had not been keeping their books of accounts updated. Most of the cooperatives have already started to maintain books of accounts as a support mechanism for their operations.
- *Financial Statements*: All of the 146 cooperatives are maintaining financial statements. 95 of these financial statements were externally audited.

b. Specialized Assistance to Cooperatives

b.1 PHF Development. Per Project design, cooperatives assumed the O&M responsibility of the PHF under this subcomponent. Sixty-six (66) cooperatives formulated their respective PHF business plans, and complied with other pre-construction requirements, such as cash deposit (50% of 30% equity amount), certificate of land title, business plan and result of COCI, to avail of the facilities. The 66 cooperatives availed of service-type PHF (48 cooperatives), business-type (14 cooperatives), trading post (1 cooperative) and solar dryer (3 cooperatives). Out of the 66 cooperatives with PHFs, 34 cooperatives (52%) complied with the 30% equity requirement, 16 cooperatives with the 15%-29% equity, 9 cooperatives with below 15% equity while 7 cooperatives had no data on equity share. On the other hand, the total amount of equity generated and remitted to NIA was ₱12.9 million which is 83.5% of the estimated amount due of ₱15.4 million.

Two pilot AIM-Cs were constructed/established in Quezon Province and Agusan del Norte employing the business type design with partitions to accommodate the display room and retail room, financial intermediation services room and extension services/training room. AIM-C is a pilot subproject which served as a systematic venue for the provision of technology training, agricultural extension, market information and market assistance to farmers in ARCs, including radiation areas/peripheral communities.

To sustain the PHFs provided, a partnership with the Department of Agriculture-Bureau of Post-harvest Research and Extension (DA-BPRE) was forged through a MOA dated July 16, 2004 for the conduct of a series of trainings entitled: *“Enhancing the Technical Capability of the Agrarian Reform Community (ARC) Beneficiaries on Post-harvest Technology and Enterprise Development”*. The training equipped farmer-leaders and warehouse technicians of cooperatives with the knowledge and skills on improved post-harvest practices and technologies to ensure efficient O&M of the PHFs.

Specifically, BPRE (i) conducted benchmark survey of participants to determine their level of competencies, (ii) in collaboration with the CPMO, designed two (2) interrelated modules on grains post-harvest technology aimed for prevention of post-harvest losses and cooperative-based enterprise development, (iii) conducted seven batches of trainings in coordination with DAR ; and (iv) carried out monitoring and evaluation on the status/progress of the implementation of cooperative business plans, including mentoring and coaching services.

The seven (7) batches of training courses were conducted from June 2005 to September 2006. A total of 115 farmer leaders and officers from 32 cooperatives (20 from Luzon, 4 from Visayas and 8 from Mindanao) successfully completed the 5-day training course per batch. The participants to the training were composed of 60% male and 40% female .

As of December 31, 2006, 32 trained cooperatives had updated and enhanced their PHF plans to consider new business ventures. Out of this number, 17 cooperatives enhanced their plans, 12 cooperatives changed the type of business plans while 3 cooperatives have considered the expansion of their existing business. Furthermore, BPRE conducted follow-through assessment on the training conducted in 22 cooperatives. The following were the observations:

b.1.1 Technical Aspect. Only a few of the technical aspects of proper post-harvest handling of their produce were being applied by the cooperatives as follows:

- *Grains Drying:* Drying of grains by the cooperatives was usually done in the pavement. With the learnings acquired from the training, cooperatives now observe proper drying.
- *Moisture Content Determination:* Majority of the cooperatives use the manual way of determining the moisture level of palay (biting the grain and by feel) since they do not have a grain moisture meter. They still expressed the need to have a moisture meter for accurate moisture determination of grains.
- *Storage of Grains:* Majority of the cooperatives use pallets in the warehouse. Some cooperatives are not concerned with cleanliness of the warehouse. There were spillages inside the warehouse especially during hauling and stacking. Some of the on-the-spot advises of BPRE include: (1) maintain warehouse cleanliness as the most practical way to prevent the attack of insects and other pests in the warehouse; (2) piling one meter away from the wall; and, (3) fertilizers and other farm inputs should not be placed together with the stored palay.
- *Technical Assistance:* BPRE, in response to the various requests of the cooperatives that attended the trainings, embarked on the following: (i) evaluated and tested the performance of rice mill bought by San Benito MPCl in San Benito ARC, Laguna; (ii) technical evaluation of moisture meter units; and (iii) technical advice, e.g. utilization of idle or under utilized facilities.

b.1.2 Business Plans. The 66 cooperatives with PHFs prepared their respective business plans to make operational the warehouses and solar dryers. This is also true in the case of the two federations which operated the AIM-Cs. DAR PPMOs and LBPIs also assisted the cooperatives in preparing business plans of their subprojects which were submitted to prospective creditors for possible funding. In the case of the AIM-C business plans, these were prepared with the assistance of the Agrarian Cooperative Business Officer (ACBO) and DAR PMOs.

b.1.3 Business Enterprise Operation. Generally, the cooperatives were engaged in three (3) major grain-related economic activities such as: (i) production and post-production services; (ii) credit financing; and (iii) marketing. Some other businesses engaged through PHF utilization are: (i) consumer store operation; (ii) copra trading; and (iii) other livelihood subprojects.

Of the 22 cooperatives, five (5) implemented their business plans, another five (5) conducted the pre-implementation activities, twelve (12) have not started. Most of the cooperatives which implemented their business plans are on grains trading. They operate their business utilizing their own existing working capital, CBU as additional capital, acquired loan from the LBP, and adopted other strategies.

Several cooperatives started pre-implementation activities but have not yet started their business operations. The reasons cited includes the following: (i) lack/insufficient/limited capital, (ii) low loan repayment collection, (iii) cannot avail of new credit from LBP due to outstanding loan balance, (iv) pending change of management, (v) calamities that affected their palay and corn harvest, (vi) problems in irrigation, and (vii) internal problems.

b.2 Agricultural Development Support.

To complement the infrastructure facilities provided under the Project and to help improve farm productivity for increased household income, DAR provided technical assistance to the cooperatives. The selected members of the cooperatives were trained to gain access to appropriate production technologies and enhance agri-business activities.

This subcomponent was implemented jointly by DAR and the UPLBFI through a partnership called "Volunteerism Project for Agricultural Development in ARCs (VPAD)" using the Sustainable Agriculture Participatory Research and Extension Model (SAPREM) as an approach/design in attaining the general objective of the Project which was to improve the farm productivity and sustain agricultural production. Other stakeholders/co implementers include LGUs and State Colleges and Universities (SCUs).

By design, the actual direct investment is to provide training to 4,500 farmers under Phase I which covers sustainable agriculture and post-production operations types of training. Phases II and III constitute replication and implementation of rollover scheme as a strategy to make the interventions sustainable.

Under this subcomponent, the Project covered 148 ARCs located in 138 municipalities covering 60 provinces in 15 regions nationwide. A total amount of ₱35.15 million agri-support funds was released to PPMOs for utilization of the ARCs' 465 concurred agri-support subprojects.

Technical and managerial supports were also provided wherein 513 batches of different kinds of technology training were conducted with 12,018 participants nationwide. A separate 135 batches of training were likewise provided by the UPLB with 3,090 participants throughout the 15 regions. The experts from UPLB have visited 95 ARCs, established 56 learning fields and 145 learning centers. Also, they distributed 555 kgs of different varieties of rice seeds, 570 pieces of twelve (12) different techno-guides, 243 rice posters, 93 Minus One Element Technique (MOET) solutions, 71 leaf color charts, 73 Soil Test Kits and 4 field guides. These have evidently helped most of the farmer cooperators increase their farm productivity and income.

At the closing of the Project, around ₱32.94 million or 93.74% of the total funds released to PPMOs were already expended and utilized by the cooperatives for the three (3) phases of 459 agri-support subprojects. This is 2% above the target of 450 demonstration projects that should be established. Further, 6,788 farmer cooperators in 148 ARCs benefited from the intervention. Of the 459 implemented subprojects, 416 have already completed Phase I implementation, 43 are still on-going while 6 are not yet implemented. For Phase I completed subprojects, all regions, except for Central Mindanao, have exhibited positive results with gross returns from the subprojects of 51.42% of the production costs. Moreover, considering the cooperators' obligations such as payment to loans, payment to other laborers (harvesters, threshers) which is around 10% of the cost of production, it can be deduced that the cooperators were still able to realize good results. Further, a repayment rate of 69% was attained that included interests and other charges with 76.61% recovery rate of principal amount. On the other hand, 28.71% and 64.71% overall increase in Capital Build-Up and Savings generation, respectively, for all regions was achieved after Phase I implementation. Correspondingly, around 72% and 71.55% of said increase was contributed by cooperators of agri-support subprojects.

Out of 4,572 total original cooperators who completed Phase I, 1,774 of them (39%) went through Phase II; 1,222 cooperators who completed Phase II (69%) pursued through Phase III. Other Phases I and II cooperators, particularly those who earned profit and became capable of financing all activities in their farms, no longer availed loans from agri-support fund. This gave way to a total of 1,494 new farmer-cooperators or adoptors for the second phase and 7222 cooperators for the third phase. Positive results from Phase I and II encouraged additional numbers of cooperators and adoptors for the succeeding phases which eventually made them confident of the technology they have tested and provided them enough capital for expansion. Likewise, the cooperatives were able to accommodate new batch of cooperators.

Among the subprojects that have completed Phase I implementation, the highest percentage of continuous adoption of technology by the cooperators for both Phase II and III were those engaged in rice seed production subproject with 60.61% and 46.54% adoption rate, respectively.

Consistent with its tri-partism approach, the Project tapped the following Resource Providers to assist DAR in the implementation of the subcomponent:

- University of the Philippines at Los Baños through Ugnayan Pahinungod (Pahinungod) and National Crop Protection Center (NCPC) through a MOA dated September 28, 2003 to implement the VPAD. Under this partnership, the SAPREM was introduced. It is a participatory approach to technology identification and development wherein the farmers themselves were groomed by the experts to become 'farmer scientists'. Also, experts from UPLB and NCPC conducted on-site monitoring and provided technical advice and Pahinungod tapped experts from PhilRice and IRRI as technical resource persons during the training.

Under this partnership, ten (10) case studies of successful technology adoption were prepared.

- 148 MLGUs were likewise tapped to provide at least 20% equity of the total project costs in the form of technician/resource persons, supplies and materials, and other logistics support. The MLGUs deployed agricultural technicians to oversee the adoption and replication of technologies in their assisted ARCs.
- 16 SUCs wherein their extension programs/units serve as channels for the dissemination of technologies were tapped. The SUCs rendered technical advice, conducted local-level technology-transfer training activities, among others and these are (1) University of the Philippines Los Baños; (2) Benguet State University; (3) Central Luzon State University; (4) Isabela State University; (5) Ramon Magsaysay Technological University; (6) Aklan State University; (7) Leyte State University; (8) Mindanao State University-Nawaan Branch; (9) Bulacan State College; (10) Bataan State College; (11) Ilocos Sur Polytechnic State College; (12) Tarlac College of Agriculture; (13) Nueva Ecija School of Science and Technology; (14) Romblon State College; (15) Camarines Sur State College; (16) Don Emilio B. Espinosa Memorial State College of Agricultural and Technology.
- At the field level, other agencies like the Department of Trade and Industry (DTI) and Department of Science and Technology (DOST) were tapped to assist the farmers and their cooperatives in product standardization and development.

b.2.1 Outputs

a. Training Proposals. The DAR-PPMOs, in consultation with the cooperatives and the Municipal LGUs, prepared the agricultural support plan (ASP) indicating the farm-based and non-farm-based interventions and activities to improve productivity and increase HH income in the ARC. The ASPs were approved by RPMOs and concurred by CPMO.

Subsequently, the PPMOs, together with cooperatives and MLGUs, prepared technical proposal (TP) of their priority agricultural support subprojects specified in the ASPs. The TPs were approved by RPMOs and concurred by CPMO. The ASP and TP were the major basis for the release of agricultural support training funds to the PPMOs/recipient cooperatives.

148 ASPs and 493 TPs/appropriate technology training programs proposed by the cooperatives were approved and implemented. Because of the provision of irrigation systems under the Project, most of the training programs approved were on crop production technologies involving rice, corn and high value crops such as vegetables, watermelon, melon. Other training programs conducted were related to animal production technologies, such as poultry, goat and swine. Food processing and handicraft training were also provided.

b. Technology trainings conducted. The 148 cooperatives were able to avail training assistance under IDC sub-component were implemented in collaboration with resource providers. A total of 605 batches of training were conducted categorized as follows:

Table 3-33. Profile of Training Participants By Category

Category	No. of Participants		No of Cooperatives
	Total	Farmers	
Rice-based Technology and Facilitation Skills (UP-Pahinungod)	1,124	474	148
PHF courses (BPRE & DAR-initiated)	201	115	40
Other Agri-support training activities	12,252	12,252	148

These training efforts were complemented by mentoring and coaching of MLGUs, SUCs, UP-Pahinungod, other support agencies and DAR PPMOs.

c. Participants trained. The Rice-based Technology and Facilitation Skills Training were attended by 1,124 participants composed of 474 farmers, Municipal Agricultural Officers/ Technologists and DAR Project Staff. Likewise, 12,252 participants attended the ARC-level training activities conducted nationwide. These training activities were also aimed at creating new breed of volunteers who are committed to serve the community and other neighboring areas through sharing of the acquired/"newly developed" adaptable technology(ies).

d. Demonstration farms established and replicated. A total of 4,588 demonstration farms were established by the 148 cooperatives during Phase 1. Demonstration farms replicated during Phase 2 and Phase 3 were 1,774 and 1,222, respectively.

e. Farmer-scientists Trained and Accredited. The 5,097 farmer-cooperators trained under agri-support development are groomed to become farmer-scientists. Farmer-scientists are expected to disseminate the appropriate technologies to the other farmers in the ARC. At this stage, UP-Pahinungod is on the process of validating the 5,097 cooperators whether they meet the qualifications of a farmer-scientist. This process must be undertaken upon completion of the Phase 3 by the farmer-cooperator.

After the validation, final list of farmer-scientists/trainers will be submitted to concerned accreditation agencies, like TESDA.

f. Learning Fields and Learning Centers. 5,097 learning fields were established by individual/cooperatives. 303 learning fields shall have yet to be established during roll-over. 148 Learning Centers were also established by the cooperatives to complement these learning fields.

325 different tarpaulin posters, 73 Soil Test Kits (STKs), 93 MOET Kit and 71 Leaf Color Charts were installed and/or available in the learning centers..

Also, a total of 12 types of Technology Guides were developed and placed in the cooperative's offices. These included production techno-guides and management of eggplant and corn, cutworm management using Spodoptera Nuclear Polyhedrosis Virus (SNPV,) rodent management in rice fields.

g. Alternative farming systems and varieties/High Value Crops (HVC) Introduced. Six (6) types of farming systems were introduced and adopted by the 150 cooperatives, namely: 1) UNLADSAKA farming technology; 2) Diversified farming systems; 3) Off-season Vegetable Production; 4) Use of Bio-organic fertilizer or organic farming technology; 5) Hybrid rice and rice seed production technology; 6) Upgrading Native Chicken.

On the other hand, 28 HVCs were adopted by 142 cooperators involving 55.13 hectares of land. These include: watermelon, honeydew, peanut, tobacco, among others.

h. Harvest recovery. The average increase in yield from baseline of the following major farm commodities are as follows: for rice (50.7% increase for hybrid rice and 48.5% for in-bred rice); for corn, an average increase of 11.6% was noted while for high-value crops is 22.1%.

b.3 Microfinance and Credit Facilitation.

To help cooperatives access credit assistance, the Project facilitated the linkage of ARB cooperatives to formal lending institutions, such as cooperative banks, rural banks, LBP, National Livelihood Support Fund (NLSF), People's Credit and Finance Corporation (PCFC) and the Quedan and Rural Credit Guarantee Corporation (QuedanCor).

The cooperatives were also linked with MFIs enabling them to access, micro-finance technology and/or avail of their micro financing facilities such as loans, deposits/savings, payment services and micro-insurance.

b.3.1 Microfinance/Credit: Based on the survey conducted, 122 cooperatives were able to access or have outstanding loans from formal lending institutions, including MFIs. The total loan amounted to ₱67.2 million and obtained from nine (9) different types of creditors such as LBP, cooperative bank, NLSF, QuedanCor, private banks, among others. The subprojects funded by loans accessed from the creditors include crop production, working capital and fixed asset.

Three (3) primary cooperatives and one (1) cooperative federation were enabled to perform micro-finance activities. These cooperatives were assisted by two (2) MFIs, namely Baba Foundation, Inc. of Davao City and Hometown Corporation of Santiago City, Isabela, in developing their respective MF programs using adaptation of the Grameen and Activists for Social Alternative (ASA) models. Likewise, agrarian-oriented MF products and tools were developed and implemented by these cooperatives. These include the Agrarian Land Amortization Service (ALAS), Cooperative Old Accounts Collection Assistance, Pinoy Kakeibo (a home financial management system), Members Welfare Fund (MWF), Passbook, MF Center Performance Chart, among others.

b.3.2 Credit Readiness: 146 cooperatives have formulated their business plans with funding sourced from their own and/or from external sources. 48 cooperatives were able to obtain loans, with an aggregate amount of ₱67 million, which were sourced externally.

b.4 Development and Promotion of ARC Connectivity

A two-dimensional approach to promote and develop ARC connectivity during the last three years of the Project's duration was done to address challenges posed on sustaining the viability of existing operations of primary cooperatives, to wit:

- formation of provincial-based ARB cooperative federation for purposes of economies of scale and improving the bargaining power of the ARBs/farmers. The Quezon Federation of ARC Cooperatives (QFARC) in Quezon Province and the Federations of ARC Cooperatives (FEDARCCO) in Agusan del Norte were organized and registered with CDA; and
- establishment of the AIM-C building to facilitate the replication of Japan's cooperative marketing model known as "*Chuku-han*" with the primary goal of addressing problems related to ARBs/farmers' access to information (market and technology) and marketing. Two AIM-Cs were built which are situated in Brgy, Malicboy, Pagbilao, Quezon Province and in Butuan City under the management of the aforementioned federations.

3.5.2.3 Irrigators Association/Irrigators Group Development.

The end goal of the irrigation development subcomponent is to establish organizationally-strong, viable and self-reliant irrigators association/group capable of participating in the different phases of development and responsible in the operation and maintenance of the turned-over completed system.

a. Organizing and Strengthening of Irrigators Association/Irrigators Group (IA/IG). NIA, jointly with DAR, validated the 169 proposed subject-organizations through the preparation/updating of irrigation community profiles. To capacitate the subject organizations, the following mechanisms were carried out:

a.1 Deployment of Institutional Development Officer . NIA spearheaded the development of IAs/IGs and for this purpose, hired and deployed 137 IDOs who facilitated and assisted the preparation of documents in compliance with the requirements of the development of 133 irrigation subprojects. The services rendered included the formation and registration of newly-organized subject-organizations/committees, facilitation for the water permit application, preparation of equity generation plans and IA/IG action plans and the signing of MOA between IA/IG and NIA. Furthermore, the IDOs conducted training need analyses and implemented the IDP training programs, in coordination with DAR-R/PPMOs. All of the IDOs were assigned to handle one subproject each, except for 10 which were redeployed to handle other subprojects.

a.2 Capability-Building of Irrigators Associations/Irrigators Group. For IA/IG development, the Project provided capability-building and strengthening to the subject-organizations which handled the O&M of the irrigation facilities constructed/rehabilitated. To improve IAs/IGs capabilities, training programs on basic leadership development, systems management, financial management/cost reconciliation, values formation were conducted by NIA Provincial Offices (**Table 3-34**). Other types of trainings provided, such as IA conferences, IA-based review and planning sessions, IA Management Information Systems, TEPs and Total Quality Management/FFS, were provided. The average cost of training provided by NIA was estimated at ₱11,980.00 per ARC.

Table 3-34. Types of Training Programs Conducted for IAs/IGs

Training Program	No of Batches			Number of Participants		
	Target	Actual	%	Target	Actual	%
Basic Leadership Development Course (BLDC)	146	143	98	5,080	4,805	95
System Management Workshop (SMW)	127	117	92	4,099	3,705	90
Financial Management Seminar/Cost Reconciliation Workshop (FMS/CRW)	187	207	111	6,207	5,161	83
Value Formation Seminar (VFS)	69	47	68	1,875	1,635	87
Others	689	713	103	17,613	18,649	106

The remaining batches of training on BLDC, SMW, FMS/CRW and VFS are to be conducted upon completion of the remaining irrigation subprojects.

b. Outputs

b.1 IAs/IGs Organized and Strengthened for Operation and Maintenance of CIP/CIS/CPIP.

Per Project design, the irrigation facilities were owned, operated and managed by IAs/IGs. For IA/IG development subcomponent, out of the 169 proposed subject-organizations, 149 were confirmed for irrigation development assistance. The remaining subject-organizations of 20 proposed facilities were not considered for assistance under the Project due to concerns on social acceptability, peace and order situation, environmental issues, right-of-way, low LTI accomplishment and other technical considerations.

The 149 subject-organizations, consisted of 59 newly-organized IAs , 65 re-organized existing IAs and 25 IGs formed from primary cooperatives who are beneficiaries of the irrigation subprojects, were considered for the operation and maintenance of 133 irrigation subprojects in 116 ARCs. Out of the 133 subprojects, 13 are operated and maintained by more than one subject-organizations.

The 59 newly-organized IAs were duly registered with the Securities Exchange Commission (SEC) to acquire legal personality. Of the 25 cooperative-IGs, 6 cooperatives were registered with CDA during the implementation of the irrigation subprojects. In summary, 142 subject-organizations 95.3%, or 95% of the total, are registered while 7 have no existing registration information.

b.2 Compliance to irrigation development

- *Membership:* The total membership of the subject-organizations is 26,701, of which 8,017 members are from 59 newly-organized IAs, 13,536 members are from existing 69 IAs while 5,148 members are from cooperatives-IGs. The total ARB-membership is 15,789, which represents 59% of the total membership.
- *Water Permit:* 149 subject organizations submitted applications for water permit to the National Water Resources Board (NWRB). Of this number, 123 subject-organizations obtained approval while the rest are pending approval.
- *MOA:* 139 IAs/IGs entered into MOAs with NIA for the construction and rehabilitation of the irrigation systems.
- *Equity:* 68 IAs/IGs opted for 30% equity while 52 opted for 10% equity. 15 of the 68 IAs/IGs, or 22% of the total, were able to attain the 30% equity requirement, hence, the systems were turned-over to them with the issuance certificates of ownership by NIA. On the other hand, 52 IAs/IGs who opted for the 10% equity option will amortize the remaining cost at zero interest rate, in equal yearly installments, within a period of not more than 50 years. The remaining 29 IAs/IGs have not confirmed their equity option but has put up their equity in the form of labor during the construction stage.

b.3 Performance of IAs/IGs in the Operation and Maintenance of Turned-Over Irrigation Systems

- *Turn-over of the System:* 91 irrigation systems or 75.2% of 121 completed irrigation systems were turned-over and accepted by 101 concerned subject-organizations. Of this number, 81 are IAs and 20 are cooperative-IGs. The remaining 12 irrigation subprojects are yet to be turned-over once completed. Ten (10) irrigation systems are being operated and managed by more than one subject organization in view of the distance of the different intakes and the size of the irrigation service area.
- *Generated irrigation service area:* The estimated total area generated from 121 irrigation subprojects is 18,140.8 hectares or 57% of the total irrigation service area of 31,595.35 hectares. The service area of the 65 new irrigation subprojects will have its full land development after 5 years.
- *Cropping Intensity:* Based on the IA/IG O&M Performance Report (Dry and Wet Seasons of CY 2006) of 59 irrigation subprojects, the average cropping intensity (CI) is 154%. Two (2) irrigation subprojects have attained more than 200% CI, e.g., Glamang CIS with 205% and LMT CIS with 211%, both in South Cotabato. Another 16 subprojects have a cropping intensity of 200%, 21 subprojects with 100%-<200% while the remaining, 20 subprojects, have below 100% cropping intensity.

In CAR, most of the irrigable areas are not only planted to paddy rice but also to vegetables such as baguio beans, bell pepper, tomatoes, legumes, cucumber, among others. The irrigable area of Caudillo PCIP is purely planted to okra during its first cropping and corn during its second season. In South Cotabato, the irrigated areas of LMT CIS in Pobusilla ARC and Glamang CIS in Glamang ARC are devoted to diversified crops, such corn and banana, papaya and vegetables. Both areas are under contract growing, Pobusilla ARC with Global Fruits Corporation and Glamang ARC with Pioneer Hi-Breed Philippines.

- *Crop yield:* The average yield of palay was reported to be 76.1 cavans per hectare (3.8 tons/ha) during dry season and 79.2 cavans per hectare (4.0 tons/ha) during wet season.
- *Amortization:* The actual amount of IA loan payments remitted by 28 IAs/IGs to NIA is ₱10.3 million.
- *O&M Manual:* The IAs/IGs are required to have O&M Manual for all of the completed irrigation subprojects, 69 completed irrigation systems, or 57% of the total, are with O&M manual which were prepared and accepted by concerned IAs/IGs. The O&M Manuals of the remaining 52 irrigation subprojects are yet to be prepared/reformulated with the assistance by the NIA Provincial Offices as of reporting period.

3.5.2.4 Organizing and Strengthening of Water Users Association/Water Users Group

The Water Users Associations/Water Users Groups (WUAs/WUGs) were organized and strengthened to collectively take the responsibility and control of the operation and maintenance of the RWS provided under Project by ensuring that water is efficiently used, effectively sustained and contributes to the development of the ARC. To capacitate the subject-organizations, in this case, the WUAs/WUGs, the following mechanisms were carried out:

a. Deployment of RWS Institutional Development Officers. Under the Project, the DAR-Provincial PMOs, in collaboration of Municipal LGUs (MLGUs), took the lead in the institutional development interventions to the subject-organizations. Prior to the start of IDC interventions and upon finalization of the detailed design of the RWS, DAR entered into a Sub-project Agreement (SPA) with the concerned MLGU. Under the SPA, the MLGU was tasked to assign a LDW to work jointly with the DAR-DF in organizing and strengthening the organizations. A total of 82 WUAs/WUGs were assisted by 78 LDWs, particularly on capability-building and strengthening and continuing technical support after Project phase-out.

The 82 WUAs/WUGs is comprised of 33 Rural Water Sanitation Associations (RWSAs)/Barangay Water Sanitation Associations (BWSAs), 14 cooperatives, 28 Barangay LGUs (BLGU), 1 MLGU and 6 subject-organizations jointly operated and managed by the aforementioned groups.

b. Capability Building of WUAs/WUGs. Training programs were either implemented by PPMOs or jointly with institutional partners to sustain the gains of the subproject. The training were carried out through classroom instruction and field visits to successful WUAs/WUGs. A total of 67 training on organizational development, system management, bookkeeping, accounting and financial management, were implemented.

The training were attended by a total of 886 participants, mostly officers or COMAT members of the subject-organizations (**Table 3-34**). Majority of the training courses conducted were under the organizational development training category involving 64% of the total number of sessions, 81% of the total participants and 58% of the total direct training cost. Based on the evaluation undertaken, these courses were found to have improved the organizational functionality of the subject organizations.

Table 3-35. Type of Training Courses Conducted for WUAs/WUGs

Category	Training		Participants			ARB Participants		
	No.	%	Male	Female	Total	Male	Female	Total
Organizational Development	43	64.2	1,168	1,080	2,248	408	227	635
System Management	12	17.9	164	117	281	103	51	154
Bookkeeping, Accounting and Financial Management	12	17.9	158	102	260	57	40	97
TOTAL	67	100	1,490	1,299	2,789	568	318	886

One of the guideposts for training implementation under the Project is to encourage cost-sharing between and among the Project, LGUs, cooperatives, and project beneficiaries. The RWS training package conducted entailed a total cost of ₱772,350.00. Out of this amount, ₱687,900.00 (or 89.1%) was shouldered by the Project while ₱84,436.00 (or 10.9%) was funded by other stakeholders. The average cost of the training provided by DAR-CPMO was estimated at ₱11,520.00

Outputs

Consistent with the Implementing Guidelines of the RWS subcomponent, the following options for subject-organizations were selected to operate and maintain the RWS provided under the Project:

Table 3-36. O&M Options for RWS Subject-Organizations

Options for O&M Organization		Number of Subject-Organizations Assisted
Option-I	WUA or Cooperative-WUG	33 WUAs 15 WUGs
Option-II	Barangay LGU	28 Barangay Councils
Option-III	Jointly by Barangay Councils and WUAs/WUGs	2 Barangays Councils & WUA
Others		1 WUA & Cooperative-WUG 2 MLGU 1 Local Water District

Other options for O&M organization evolved during implementation. These include one jointly with WUA and cooperative; 2 MLGUs and 1 Local Water District.

As of March 31, 2007, the overall accomplishments of WUA/WUG development based from available data and information submitted by DAR-PPMOs were posted:

- (1) *Households served:* 13,867 households are served with potable water upon turn-over of the 65 completed RWSs, representing 65% of the targeted beneficiaries. The rest of the targeted households are in the pre-membership stage.
- (2) *Tariff and Collection Efficiency of monthly tariff:* The average monthly tariff is ₱59.35 involving 24 subject organizations of Level II RWSs. Out of the 24 RWSs with recorded tariff collection, 22 subject-organizations have average collection efficiency of 71%. St. Michael's Multi-Purpose Cooperative (MPC), owner of the Barangay Kasuga RWS in Kasuga ARC, Davao del Sur, has the highest collection rate of 140.52%. Likewise, Payapa Waterworks Association in Padre Garcia Integrated ARC, Batangas has a monthly collection rate of 100%.

For Level 1 systems, most of the subject-organizations agreed not to collect monthly tariff. Instead, they agreed that a policy on repairs and replacement of damaged parts will be shouldered by each cluster. This O&M scheme is spelled out in the individual; O&M Manuals of the subject-organizations.

- (3) *PSPs/Ordinances*: Out of the 82 completed RWS, 41 subject-organizations were already able to formulate and install their respective PSPs/Ordinances. This represents 50% of the completed subprojects. These PSPs/Ordinances include provisions/policies on maintenance and minor repairs, major repairs and replacement, water service fee, administrative/office policies, roles and responsibilities of the subject organizations, among others. Other subject-organizations are in the process of formulating their own PSPs/Ordinances.
- (4) *Turn-over of the RWS*: 41 completed RWSs were turned-over from DAR-PPMOs to MLGUs and subsequently turned-over by MLGUs to the subject-organizations
- (5) *O&M Manual*: All of the completed RWSs were required to have O&M manual prepared and accepted by concerned subject organizations. For RWS-Level 1, the NWRB Manuals entitled "*Paggamit at Pag-alaga ng Posong Jetmatic*" were provided by the Project to the subject-organizations as guide in the operation and maintenance of the system.

Annexes on the Status of Cooperative Development (Annex 21), Status of PHF-ID Component (Annex 22), Status of Irrigators' Association Development (Annex 23), Status of Rural Water Users Development (Annex 24), Status of Agri-support Development Subprojects (Annex 25) form part of this report.

3.5.3 Project Management

In order to ensure effective delivery of outputs based on targets of the Project, DAR set the specific roles/tasks of the agencies and partners involved in the implementation of the Project, based on mandates and lines of specialization.

As designed, ARISP II was implemented by DAR, as lead agency, in cooperation with the NIA for the irrigation and post-harvest components and the organizing/strengthening of irrigators' associations and the Department of Public Works and Highways (DPWH) for the farm-to-market road component. The Institutional Development component was implemented in collaboration with the Development Academy of the Philippines and University of the Philippines (UP)/Ugnayan ng Pahinungod Oblation Corps Los Banos (UP/OC). The rural water supply component was implemented in partnership with the LGUs.

Project Implementation Manuals were prepared by DAR, NIA and DPWH with the assistance of the Consultants to guide the stakeholders. The manuals were actually modified versions of ARISP I Guidelines with several supplemental guidelines prepared for new components. Specifically, the ARISP II Implementation Guidelines come in seven (7) volumes, namely: The Primer, Irrigation Development, Farm-to-Market Road, Rural Water Supply, Post-Harvest Facilities, Cooperative Development and Financial and Management.

The Guidelines likewise served as a basis for DAR to forge partnership with relevant agencies/organizations for specific tasks which are not usually undertaken by DAR.

The implementation of the Project was mainstreamed in DAR's regular structure and operations. Overall supervision and day-to-day operations was handled by the DAR Central Project Management Office (CPMO) under the Foreign-Assisted Projects Office. It is composed of organic staff of DAR assigned to the Project in concurrent capacity. The CPMO handled project planning, funds programming, project evaluation and scheduling, physical and financial progress monitoring, contracts management and overall project coordination. It also handled financial management involving disbursement and replenishment of both Loan Proceeds and GOP counterpart funds jointly with the FAPs Finance and Administration Unit. It also performed project evaluation and engineering review with the assistance of Project Consultants.

Implementation from regional, provincial and municipal levels was carried out through the organic field offices of DAR using existing regular technical and administrative staff mostly coming from the Regional Support Services Division (SSD) and the Provincial Beneficiaries Development Division (BDCD) including the Municipal Agrarian Reform Officers (MAROs) and DFs concerned. Field Operations were under the supervision of the DAR Regional Directors (RDs) AND Provincial Agrarian Reform officers (PAROs) in their respective jurisdictions was guided by agreed-upon

roles and functions and standard operating procedures as provided for in the Implementation Manuals.

3.5.3.1 Consulting Services. As specified in the Contract for Consulting Services, the Consultant rendered technical services and assistance to the CPMO in (i) overall Project Management; (ii) Institutional Development; (iii) Infrastructure Development; (iv) Training of Government Staff; and (v) Formulation of Future Plan and Project. Specific activities identified in their Terms of Reference (TOR) were undertaken for each of these project items.

The abovementioned scope of services was committed to be delivered by Nippn Koei, through a joint venture arrangement with PhilKoei International, Inc. and Hydroterre Consultants Inc., composed of both Japanese and Filipino components (i.e. qualified Japanese Consulting Firm and Filipino Firm) as required under the Loan Agreement. Their provision of services was originally scheduled for a duration of five (5) years and three (3) months.

Overall, the Consultant succeeded in delivering the services required of them under the Consulting Contract. Their performance proved satisfactory inasmuch as they were able to effectively and efficiently assist the CPMO in the implementation of the different components of the Project thru their engagement of technical personnel with adequate qualifications and experience who have exercised competencies, care, diligence in providing technical knowledge and in accordance with best accepted professional standards.

Specifically, the services delivered by the Consultant covered a wide spectrum ranging from the purely technical review of various subproject documents for approval of the CPMO to actual field works to validate technical recommendations, monitor project implementation and compliance with set standards, as well as recommend improvements on project management implementation and operation manuals and guidelines vis-à-vis enhancement of project management systems, and the identification of innovative approaches for the project beneficiaries.

In addition to the foregoing, the Consultant likewise provided the CPMO with updated quarterly progress/monitoring reports of the different subprojects under the infrastructure and institutional development components and addressed issues and concerns encountered during implementation of these subprojects. The Consultant even extended their services by fielding their chosen personnel to act as resource persons for the different subject organizations being organized.

Furthermore, consistent with the policy on observance of transfer of technology in the engagement of foreign consultants, the Consultant provided various training to government personnel, both on-the-job and overseas.

Lastly, the Consultant assisted in the preparation of subproject documents for the review/concurrence of JBIC, including those documents for future ARC development plan and subprojects of the DAR, particularly those needed for the processing and approval of ARISP Phase III.

All in all, the services extended by the Consultant helped facilitate the completion of the Project.

Annex 26 shows the Schedule and Actual Services Rendered by Consulting Services.

3.5.3.2 Financial Management. The DAR, thru the FAPs Finance and Administration, managed the Special Accounts for the Project's Loan Proceeds and GOP counterpart funds. Disbursements of LP were done through the already established Statement of Expenditure (SOE) procedure based on Project Guidelines.

Loan proceeds were released from JBIC to GOP through the following banks: Tokyo Bank to Mitsubishi to Bangko Sentral ng Pilipinas (BSP) to the Land Bank of the Philippines (LBP), which is DAR's depository bank of Project funds. In the case of GOP counterpart fund, these were released from the DBM to LBP. All project funds, regardless of source, were released to DAR and managed by the FAPsO Finance unit. The funds were subsequently issued to cooperating agencies based on approved project proposals/studies, programs of work or work and financial plans or contracts.

3.5.3.3 *Coordination Mechanism.* Coordination mechanisms were established and operated at all levels of key implementing agencies and non-government partners.

At the national level, the Inter-Agency Project Management Office composed of the DAR-CPMO and its counterparts, the CARP-Irrigation Component of NIA Head Office and CARP-Center for Labor-Based Unit of DPWH Central Office convened project management meetings to track progress of implementation, resolve issues and agree on next plans of action. These different offices managed and supervised their respective field offices in the implementation of the components assigned to each of them.

For its counterpart to handle project management and coordination at the regional level, a Regional Inter-Agency PMO was also established and operated in each region. Similarly, a Provincial Inter-Agency PMO existed in each province wherein NGO partners were included as members. At the frontline, an ARISP II Implementing Team (AIT) was also organized at the municipal/ARC level composed of the MARO, Development Facilitator, LGUs, NGO Development Worker, NIA IDO and Project Engineers as members to attend to day-to-day activities and coordination work and synchronize implementation of the different components.

Many of these coordination mechanisms were actively involved in actual implementation of the projects. However, some have not been as visible and enthusiastic for various reasons, such as preoccupation with other regular tasks, strained relationships, lack of budget and other reasons.

Monitoring and evaluation of the Project is handled by the DAR's Foreign-Assisted Projects Office's Monitoring and Evaluation Unit. The FAPs M&E consolidated all the monitoring reports from different FAPs of the DAR. However, for project-level progress monitoring, the CPMO maintained its own unit. This has its counterpart staff who are members of the regional and provincial PMOs. Apart from regular monitoring, the CPMO through its partner agency commissioned a third party evaluator which conducted a mid-term evaluation of the Project.

3.5.3.4 *Upgrading of Technical Capability of Staff*

The following training/workshops were conducted for the improvement of engineering capability at the field level:

- a. Orientation Workshop on the Preparation of Feasibility Study Report. The Workshop was conducted to improve the quality of the feasibility study report on irrigation development subprojects. The participants included the Planning Engineers of NIA-RIOs/PIOs and regional/provincial engineers. There were four (4) batches conducted from July 2000 to August 2001 by the CPMO/Consultants.
- b. Detailed Design Workshop. The workshop was conducted to assist NIA Design Engineers in the preparation of quality design outputs. The workshop was conducted on September 2001 by the CPMO/Consultants.
- c. Engineers Training on Construction Monitoring and Quality Assessment and Application of MS Project. The objective of the training was to equip the Regional/Provincial engineers with knowledge and skills in the monitoring of infrastructure subprojects. Specifically, 1) A thorough knowledge in construction monitoring and quality assessment, and, 2) Working knowledge in the application of the MS Project software. The workshop was held on October 2002.
- d. Construction Monitoring and Quality Assessment of Infrastructure Subprojects Training for ARISP II Engineers. The CPMO, with the assistance of the Bureau of Research and Standards, conducted the training on January and February 2004 to equip DAR personnel with appropriate techniques and skills in project management, specifically in the monitoring of construction of infrastructure facilities provided under the Project and with needed knowledge on the preparation of ARC maps through sieve mapping utilizing available maps from other government agencies.

3.5.3.5 *Procurement* . Based on the Loan Agreement, procurement is another Project category which refers to acquisition of vehicles and office equipment. The acquired assets facilitated mobility of Project field personnel, preparation of physical and financial reports, and Project documentation.

These equipment and vehicles were disseminated to 15 Regional and 61 Provincial PMOs as well as the different offices at the DARCO who are involved in the process of project implementation.

Table 3-37. Vehicles and Equipment Provided

PARTICULARS	NO. OF UNITS
Copying Machines	2
Computer Sets (Desktops/Laptops)	279
Scanner	20
Camera	84
Vehicles	96
Motorcycles	150
LCD Projectors	76
TOTAL	707

3.5.3.6 *Project Monitoring and Evaluation*.

A. *M&E Framework*. The Monitoring and Evaluation (M&E) framework was anchored mainly on the Project Logical Framework which reflected the Project's overall design (Annex 8). It took into consideration the goal, the typology of various indicators, data requirements, the means and methods of data collection and verification, and the assumptions and risks involved to ensure successful implementation, among others.

Likewise, the Project M&E framework aimed to contribute, through the FAPSO-M&E Division, to the broader M&E processes of the Department's overall ARC strategy and program and the Agrarian Reform Impact Assessment.

The Project's primary performance indicators were two-fold, i.e., macro level and micro level. At the macro level, focus was on the ARC, primarily in terms of reduced incidence of poverty and improved productive capacities and control over community resources. At the micro level, focus was on the ARB and the household, particularly in terms of improved incomes and reduced depth of poverty.

The following were the key result areas required for each project component:

- a. Communal irrigation and drainage – (1) increased cropping intensity; (2) increased farm productivity; (3) increased production of palay, corn and other selected crops; (4) reduced maintenance cost of irrigation canals of irrigation facilities; and (5) sustained high level of irrigation fee collection.
- b. Farm-to-market roads – (1) lowered transport cost of goods and people; (2) lowered hauling cost of farm produce; (3) decreased travel time from the ARC to the economic centers and vice-versa; (4) increased number and types of vehicles using the FMR for ARCs with rehabilitated FMR; and (5) increased number of transport-related service businesses established.
- c. Rural water supply – (1) reduced time spent in fetching water; (2) increased number of households with access to potable water; (3) reduced incidence of water-borne and water-related diseases; and (4) increased household economic activities.
- d. Post-harvest facilities – (1) decreased losses from spoilage of farm produce; (2) increased prices of agricultural produce; and (3) increased income of the cooperatives.
- e. Institutional strengthening –

- a. ARCs transformed into viable, organized, self-reliant, socially-prepared, and technically capable communities through:
 - Increased capital build-up of organizations;
 - High collection efficiency of loans and/or fees from members and/or users of facilities;
 - Debt repayment levels of cooperatives, IAs and RWSAs maintained at a high level; and
 - Enhanced management and technical skills of officers and members of cooperatives, IAs and RWSAs in the areas of leadership, resource mobilization, financial capability, credit management, and organization.
- b. Improved efficiency in and sustainability of the operation and maintenance of infrastructure support facilities.
- f. Agricultural extension and demonstration farms – increased level of appreciation and application of technical know-how from extension services and demonstration farms.
- g. Strengthening of LGUs – enhanced capability of selected LGU staff in planning and implementation of RWS subprojects.

On the other hand, the following were the main performance and result indicators used:

- a. Communal irrigation – area irrigated (in ha); yield by crop and season (in MT/ha); number of croppings/year; crop diversification (by number of new crop types); yield of new crops (in MT/ha); area of agricultural land planted (in ha); employment generated (by number of persons and in man-days); irrigation service fee collection (in pesos).
- b. Farm-to-market roads – length of roads constructed/rehabilitated (in km); traffic density (in terms of daily vehicle count); average travel time (in minutes); vehicle operating cost (in pesos); transport/hauling cost per person and per type of merchandise (in pesos); maintenance cost (in pesos); employment generated (by number of persons and in man-days).
- c. Post-harvest facilities – post-harvest losses (in pesos and MT); warehouse capacity utilization (in MT); solar dryer capacity utilization (in MT); equity generation (in pesos); product quality (farm gate or mill gate price of commodity, in pesos); PHF-based business operations (by crop and volume, in pesos); PHF-based business financial performance (net operating income, in pesos and percentage); patronization of PHF-based businesses (by number of BOD members, by number of cooperative members, and by number of non-members); employment generated (by number of persons and in man-days).
- d. Rural water supply – time spent in fetching water (in minutes/day); service area coverage (by number of households reached); water availability (by number of hours/day); cost of water (in pesos); incidence of water-borne and water-related diseases (by number of persons per 1,000 population); employment generated (by number of persons and in man-days).
- e. Institutional strengthening – farmers' organizations organized and/or strengthened (by number of cooperatives, irrigators' associations/groups, and water users')

associations); ARBs as active members in the organization (in terms of ratio of the number of ARB members to the total number of ARBs in the ARC); membership (by number of ARBs and by number of active members); capital build-up generation (in pesos); savings mobilization (in pesos); organizational maturity (by ARC classification, by ARC Level of Development Assessment or ALDA, and by COCI); functional leadership (by number of active BOD members, and by average number of meetings per month); functional management (by position, and whether full-time or part-time); policies, systems and procedures (if operationalized and if updated); books of accounts and financial statements (if installed and updated); organizational affiliations (by level); businesses/livelihood/ services (by number of beneficiaries, in terms of capitalization [in pesos and by fund source], profitability [by Return on Investment or ROI and Return on Equity or ROE], and solvency [by current ratio]); credit performance (in terms of credit availment [by type of loan and in pesos], loan repayment [in pesos and repayment rate]); training courses conducted (by type, number of batches, number of participants, and cost [pesos]).

- f. Agricultural support development – demonstration farms/ technologies/ projects implemented (by project type); project reach (by number of cooperators, adopters and replicators); training courses conducted (by type, number of batches, number of participants, and cost [pesos]); LGU and people’s organizations’ equity (in pesos and by type of equity); loan availment (by number of borrowers, by volume [cavans] availed through credit, and in pesos); loan repayment (by number of borrowers and by amount collected [in pesos]); amount and volume traded and collected (in pesos/cavans); number of market partners identified; productivity (in MT/ha); income (in pesos); yield (in MT/ha); yield (by crop and season, in MT/ha); number of household beneficiaries; effects on or contribution to increase in membership (by number of new members), CBU (in pesos), businesses and/or services (by type, number of new businesses and/or services, and number of beneficiaries), use of irrigation facilities and/or PHF (in ha, MT, and pesos), and cropping intensity (by number of croppings/year).

B. Structural/Institutional Relationships and Arrangements in Monitoring. Under the Project, the structural and institutional relationships and arrangements observed were mainly carried over from those that had been established under ARISP-I, with some modifications and enhancements.

- a. The existing DAR regular structure served as the basis of the Project’s organizational set-up through the establishment and maintenance of the CPMO, the RPMOs and the PPMOs in the Central Office’s PDMS/FAPsO, in the DAR Regional Offices, and in the DAR Provincial Offices, respectively.
- b. Monitoring at the Project was multi-level involving the field and central/national offices of DAR, NIA, DPWH, and DAP, as well as the CPMO. The actual conduct of monitoring activities was conducted by these offices either separately or jointly.
- c. The structure tasked with overseeing the implementation of subprojects on the ground was the AIT which was based in the municipal level and which conducted meetings on a regular basis. It was headed by the MARO and composed of the DF and the corresponding field unit heads of NIA, DPWH, DAR, DAP, and the LGUs, and involved the participation of other major players and stakeholders concerned. The AIT coordinated subproject implementation and monitoring, and undertook measures to act on issues and concerns that it was able to address at its level.
- d. The CPMO, as the unit principally charged with ensuring the smooth and successful implementation of all components and activities of the Project, was composed of technical/sector teams. These teams monitored the infrastructure

and institutional development activities in assigned regions and provinces, and coordinated with the field implementers as well as their counterparts from NIA (for irrigation, PHF, and irrigators' associations development), DPWH (for FMR), the LGUs (for FMR, RWS, and development of water users' associations), DAP (for cooperatives development), and DAR regional, provincial and municipal offices (for all of the foregoing, including agricultural support development).

- e. The CPMO also initiated and coordinated intra- and inter-agency meetings and related activities (such as PMO meetings, PM-APM Conferences and Planning Workshops) where updates were presented and assessed, where implementation progress was reviewed and evaluated, and where issues and concerns were addressed.
- f. Lodged within the CPMO was the M&E Group which was tasked primarily with gathering all pertinent data and maintaining these in a database. These data, which were retrieved mainly via prescribed report formats prepared and submitted by the DAR field offices and the partner implementing agencies (NIA, DPWH and DAP), were processed and reviewed, and subsequently used as bases in the preparation of reports and other publications by CPMO for submission or distribution to the Management of DAR and FAPsO, JBIC, NEDA, COA, DBM, Congress, and other offices and entities exercising oversight functions over the Project.

C. *Monitoring and Report Forms and Timetables.* In order to regularly keep tab of the effectiveness of the Project's various infrastructure and institutional development interventions, pertinent report forms as discussed below were used.

c.1 Infrastructure Component

- a. Monthly Physical Accomplishment Report (MF No. 1), the primary monitoring and reporting form required for all infrastructure development subprojects which was prepared on a monthly basis by the Project Engineer/PPMO and supposed to be submitted to the RPMO no later than the 5th day following the month under review. In turn, the RPMO was expected to indorse the report to the CPMO no later than the 10th day following the month under review.
- b. Status of FMR Subprojects, the monthly report prepared and submitted by the DPWH PMO-CLB/CARP Program Office to the CPMO.
- c. Quarterly Progress Report for Irrigation and PHF, prepared and submitted by the NIA CARP-IC Office to the CPMO.

c.2 Institutional Development Component

- a. IDC Quarterly Performance Monitoring Report (IDC-QPMR), the principal monitoring and reporting form required for the Institutional Development Component which was prepared by the IDC of the PPMO on a quarterly basis and submitted to the RPMO no later than the 5th day of the month following the quarter under review. In turn, the RPMO was required to indorse the report to the CPMO no later than the 10th day of the month following the quarter under review.
- b. Quarterly Cooperative Status Report, prepared and submitted by the DAP-NPMO to the CPMO no later than the 10th day of the month following the quarter under review.

- c. Subject Organization Performance Report for RWS, prepared by the WUA President on a quarterly basis and indorsed by the PPMO to the RPMO and CPMO no later than (*due date and frequency*).
- d. Report using the FAPsO Results-Based M&E System, prepared on a semestral basis by the IDC of the PPMO and submitted to the CPMO through the RPMO within one month after the period under review. This type of report, which was initiated by the FAPsO M&E Unit sometime during the latter part of 2004 to gather data on the initial results of infrastructure and institutional development interventions, was discontinued at the end of 2005.
- e. ARROW Reports (for RWS and Cooperative Development) – Mindful of the need to ensure the sustainability of the Project's gains in the ARCs, particularly on the subject organizations, and in order to arrest the decline in the organizational maturity of these organizations, the CPMO devised an instrument called "Appraisal through Rapid Reconnaissance of Operations Work "(or ARROW).

This instrument, which covered the water users associations and the cooperatives initially, was designed for the primary use of the RPMOs which will continue to monitor and evaluate the ARCs and the subject organizations after the Project's phase out.

The ARROW was first used to evaluate the organizational development of the water users associations sometime in the middle of 2006, and was later on pilot-tested in selected cooperatives which either experienced a decline in their organizational maturity levels or continued to remain at the lowest maturity level.

c.3 Agricultural Support Development

- a. Monthly Progress Report on Demonstration Farms (Attachment 7.1), prepared primarily by the ADC of the PPMO and submitted to the RPMO no later than the 5th day following the month under review. The RPMO in turn was required to indorse the report to the CPMO no later than the 10th day following the month under review.
- b. Accomplishment Report on the Establishment of Demonstration Projects (Attachment 7.2), prepared primarily by the ADC of the PPMO and submitted to the RPMO no later than the 5th day following the month under review. The RPMO in turn was required to indorse the report to the CPMO no later than the 10th day following the month under review.
- c. Training Program Accomplishment Report (Attachment 7.3), prepared primarily by the ADC of the PPMO and submitted to the RPMO no later than the 5th day following the month under review. The RPMO in turn was required to indorse the report to the CPMO no later than the 10th day following the month under review.
- d. End-of-Phase Report, prepared by the ADC of the PPMO after the completion of every project phase, and was inclusive of several addenda, i.e., Profitability of Projects, Loan Status and Repayment Performance, Contribution to CBU and Savings Mobilization, and Inventory of Cooperators. This report was submitted to the RPMO and CPMO within one month after the completion date of the said project phase, and updated/transmitted on a quarterly basis whenever necessary.

- e. Project Completion Report, prepared by the ADC of the PPMO to consolidate the results, findings, and lessons learned from the three completed project phases, and submitted to the RPMO and CPMO two months after the completion date of the third phase.
- c.4 Compliance by the field offices with the foregoing requirements was regularly monitored by CPMO through the use of tracking forms, and information on any lacking or incomplete reports were regularly relayed to the PPMOs and RPMOs concerned for appropriate action. Likewise, in order to fast track the transmittal of advanced data and other relevant information to the CPMO, the PPMOs were requested to submit or transmit these via e-mail (*monitor_arisp2@yahoo.com* and/or the individual Yahoo! mailboxes specifically created by the CPMO for each RPMO through which the respective PPMOs could send their reports), fax, courier, or any other fast means.

4.0 PROJECT FUNDS UTILIZATION

4.1 Overall Fund Utilization. At the closing of the Project, DAR was able to obligate ₱6.790 billion or 99.88% of the allotment issued by the Department of Budget and Management (DBM). This amount is 0.75% below the ICC-approved total cost of ₱6.841 billion and 0.74% above the amount indicated in the Loan Agreement.

Table 4-1. Original Cost and Actual Obligation

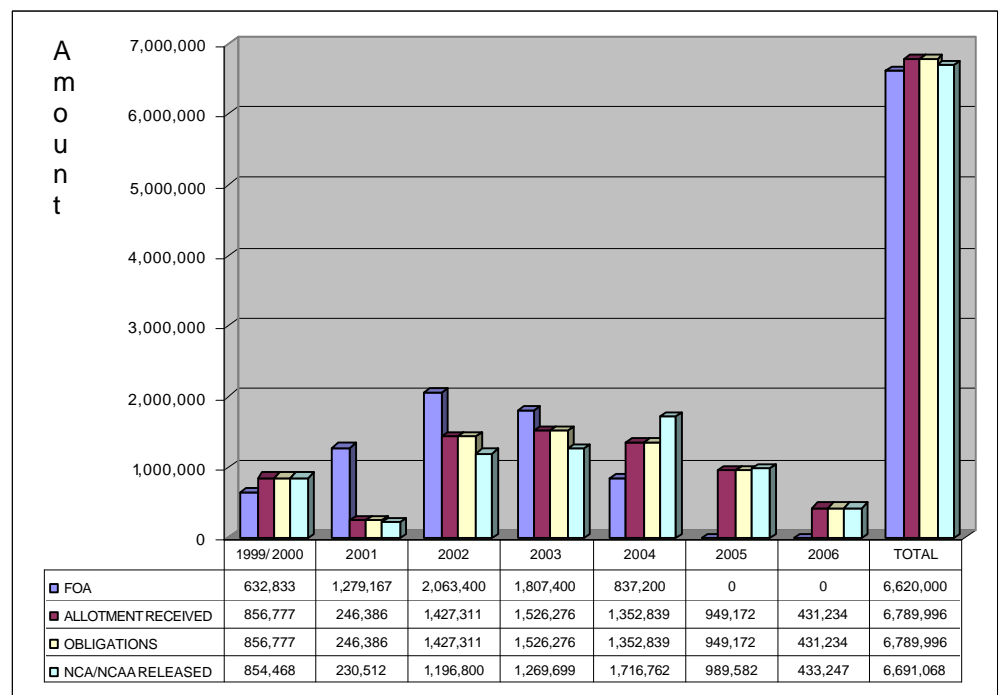
COMPONENT	COST PER LOAN AGREEMENT			ACTUAL OBLIGATIONS		
	(in Pmillion)			(in Pmillion)		
	LP	GOP	Total	LP	GOP	Total
Infrastructure Development	4,628.442	677.941	5,306.383	4,422.317	643.799	5,066.116
Irrigation	2,657.466	462.305	3,119.771	2,505.293	361.565	2,866.859
PHF	122.454	29.905	152.359	60.186	20.216	80.402
FMR	1,751.621	174.686	1,926.307	1,756.768	259.343	2,016.111
RWS	96.901	11.045	107.946	100.070	2.675	102.745
Institutional Development	422.326	115.790	538.116	414.022	71.195	485.218
Consulting Services	478.690	-	478.690	608.875	-	608.875
Equipment Support	133.542	13.354	146.896	133.542	9.495	143.037
Project Management	-	269.915	269.915	-	486.749	486.749
DAR	-	145.915	145.915	-	386.058	386.058
NIA	-	124.000	124.000	-	53.923	53.923
DPWH	-	-	-	-	-	-
Grand Total	5,663.000	1,077.000	6,740.000	5,578.757	1,211.238	6,789.995
% Share	84.02	15.98	100.00	82.16	17.84	100.00

4.1.1 By Source. In terms of Loan Proceeds, ₱5.579 billion was utilized or 1.49% short of the original loan amount. On the other hand, ₱1.211 billion was obligated under the GOP counterpart funds.

In terms of actual expenditures the Project disbursed ₱6.691B equivalent to the cash (NCA) and non-cash (NCAA) releases (Figure 4-1) by DBM. The same Figure 4-1 shows the overall annual allotment received, obligations incurred and cash (NCA) and non-cash (NCAA) support against the annual budget requirements as specified in the loan agreement.

At the start of project

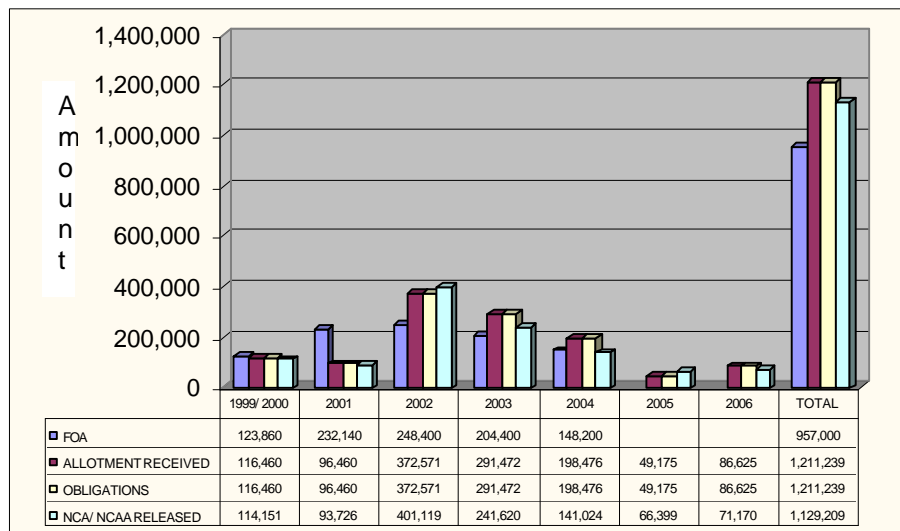
Figure 4-1: Overall Original Cost, Allotment Received, Obligations and Cash/Non-cash Support (in P'000)



implementation in 2000, the total allotment received was 35.39% higher than the actual fund requirements (Figure 4-1) in order to provide the appropriations cover for the loan proceeds equivalent to the initial deposit. However, the preparatory activities covered under the GOP counterpart funds which are not eligible under the loan proceeds, were not given sufficient allotment at the start of the Project particularly in the year 2001 (Figure 4-2).

The cash support for pre-engineering funds financed under the GOP counterpart became available only in October of the same year, six (6) months later than expected. This timing of availability of funds is considered most crucial for construction works especially for communal irrigation facilities inasmuch as the

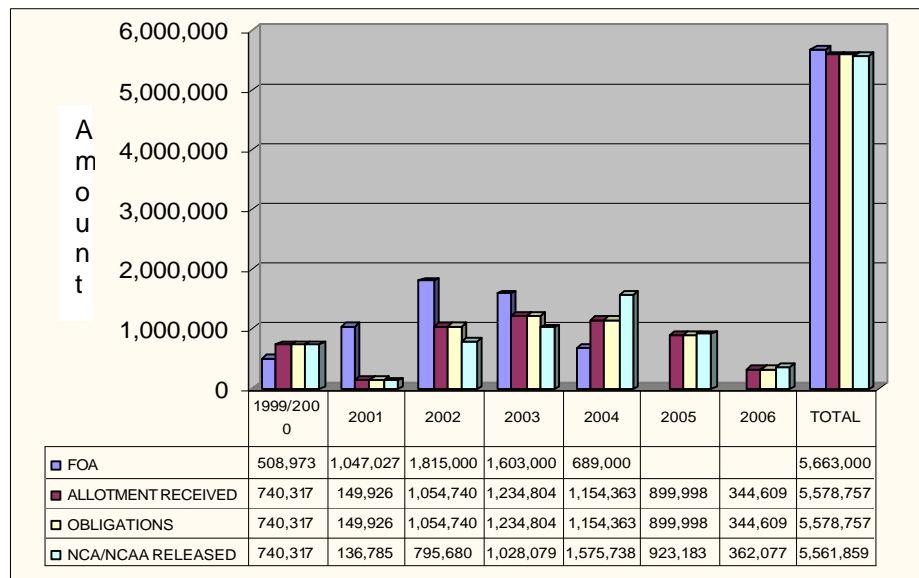
Figure 4-2: GOP Counterpart Funds Utilization (in P'000)



feasibility studies (FS) of these subprojects required at least six months preparation time. Moreover, upon approval of the FS, detailed design and Program of Works would follow which would take at least another six (6) months before any actual construction works could begin.

In 2001, the Project received minimal allotment due to overall government budgetary constraints. Hence, very limited funds were released for GOP counterpart coupled with the unavailability of the appropriation cover for the loan proceeds, which affected disbursement of loan from JBIC (Figure 4-3).

Figure 4-3: Loan Proceeds Utilization (in P'000)



This total budget was actually 19.26 % only of the 2001 requirements based on the Loan Agreement (Figure 4-1).

4.1.2 By Component. On a per component basis, there was a reduction of 4.53% in the total amount obligated for infrastructure development component compared with its cost in the loan agreement. This decline was derived from both the loan portion which registered 4.45% decrease or equivalent to ₱206 million and the GOP counterpart by 5.04% or ₱34 million. Among the four sub-components of the infrastructure development component, only the FMR subcomponent incurred increases both in the loan portion and GOP counterpart funds, mainly due to necessary construction of structures/protection works found necessary based on actual field condition, as discussed in the earlier chapter. Also noteworthy is the 75.78% decrease in the GOP counterpart

fund for rural water supply inspite of the 24% increase in the number of implemented subprojects. This is attributed to the ability of the LGUs in putting up their equity for the Project.

Under the Institutional Development Component, the total amount obligated was ₱485.218 million: ₱414.022 million from the loan proceeds and ₱71.195 million from the GOP counterpart funds. In terms of efficiency, the component was able to meet 100% of the target output with a 9.83% reduction in the original cost.

Under the Project Management Component some ₱486.749 million was utilized by the implementing agencies or an average of ₱69.536 million per year, equivalent to ₱903,059.00 per PMO/year which was shared by the three (3) implementing agencies 15 regional and 61 provincial PMOs. This component showed increases due to slow start of the Project and the necessary two-year extension.

As indicated in the previous chapter, there was a shift in the LP:GOP sharing from the original 84:16 to 82:18. This is mainly due to the necessary two-year extension of the Project as a consequence of the late start of actual construction works. Moreover, several typhoons occurred in 2005 and 2006 which destroyed several subprojects under construction. One (1) farm-to-market road subproject and 11 irrigation subprojects were damaged which needed additional funds for repair and rehabilitation.

4.2 Loan Proceeds Utilization

For the loan proceeds, a total allotment of ₱5,578.757M (equivalent to ¥12,333M) was issued and was fully obligated for the following:

- ₱2,505.293 million for 133 irrigation subprojects (31,595.35 ha);
- ₱1,756.768 million for 184 FMR subprojects (641.168 km);
- ₱100.070 million for 82 RWS subprojects;
- ₱60.186 million for 68 PHF subprojects;
- ₱414.022 million for institutional development activities;
- ₱608.875 million for consulting services; and
- ₱133.542 million for equipment and other project management support requirement.

4.2.1 Loan Funds Drawdown. Of the Project's total net commitment of ¥16,990M, the cumulative amount availed was ¥12,333.85M, or a loan utilization rate of 79.18%, and 101.03% availment rate as against the cumulative target availment of ¥12,208.23M (**Table 4-2**).

Table 4-2: Cumulative Loan Performance

Particulars	Amount/Rate
Net Commitment	¥16,990.00 M
Scheduled Availment	¥12,208.23 M
Actual Availment	¥12,333.85 M
Availment Rate	101.03%
Utilization Rate	79.18%

As a result, the Project surpassed its scheduled availment by ¥125.62M (or 1.03%), i.e. the difference between scheduled and actual availment. However, Y4,657M was left unutilized at the end of the Project as a result of continued appreciation of Japanese Yen over the Philippine Peso within seven years of project implementation.

Following the Loan Agreement, the Project opened three special accounts: (1) Civil Works 1; (2) Civil Works 2; and, (3) Institutional Development. These special accounts have a combined initial deposit of ¥1,906.945M (equivalent to ₱737.539 million) which supported the minimum cash requirement of the Project for the first two years and ensured easy cash flow during the peak of construction.

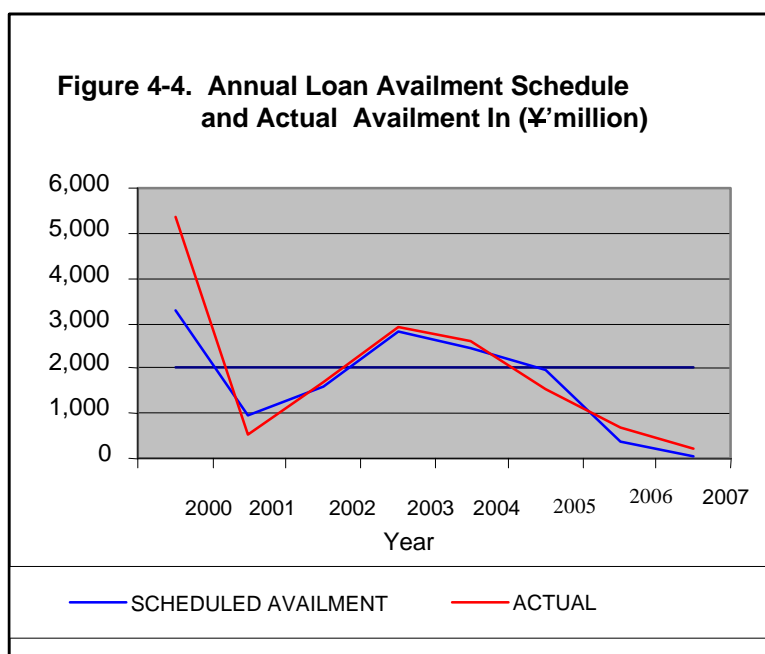
Table 4-3. Loan Funds Drawdown from JBIC

COMPONENT	LOAN FUND DRAWDOWN	
	¥EN	PESO EQUIVALENT
Initial Deposit		
Civil Works (1)	1,732,410,680	670,034,839
Civil Works (2)	30,630,600	11,846,827
Institutional Development	143,903,760	55,656,857
Total (Initial Deposit)	1,906,945,040	737,538,522
Replenishment		
Civil Works (1)	7,796,956,403	3,657,171,865
Civil Works (2)	185,770,912	89,321,600
Institutional Development	798,878,508	359,561,554
Total Replenishment	8,781,605,823	4,106,055,019
Total SAP	10,688,550,863	4,843,593,541
Procurement of Equipment	275,790,921	125,971,431
Consulting Services	1,369,507,457	607,726,983
Total (Replishment)	10,426,904,201.00	4,839,753,434
GRAND TOTAL	12,333,849,241	5,577,291,956

The succeeding Project's funds drawdown from JBIC to the three sub-components under the Special Account Procedure was through replenishment using SOE as an instrument. Some ¥8,781 million (or ₱4,106 million) was replenished by JBIC which brings the total drawdown from JBIC for Special Accounts to ¥10,688.550 million (₱4,843.594 million).

In addition, a cumulative amount of ¥275 million (or ₱125 million) was actually disbursed by JBIC to various suppliers contracted by the Project under the Procurement category. Lastly, ¥1,369 million (or ₱607 million) was disbursed under Consulting Services.

Figure 4-4 shows the Project's annual loan availment target and actual amount of loan obtained. Year 1 represents the combined availment for CY 2000 and CY 2001 which includes the initial deposit for three special accounts. The initial deposits explain the big variance in the amount of disbursement projections compared to actual availment.



During the first two years however, the Project was undertaking mostly preliminary activities which were not eligible for funding under the proceeds of the loan. Hence, only a small portion in the amount of ¥7 million was disbursed from the initial deposit in CY 2000 under the Institutional Development Component. In CY 2001, only ¥515 million under Special Accounts I and III and Consulting Services were disbursed. Hence, in CY 2001, DAR fell short of scheduled availment by ¥431 million, (46% or ₱180 million).

Henceforth, the annual actual loan availment either met or surpassed the annual scheduled loan availment except in CY 2006, when actual loan availment was only 80% of the year's target.

4.2.2 *Loan Disbursement and Replenishment.* The total allotment issued under the loan proceeds amounting to (₱5,578.757 million) was fully obligated. The total amount indicated in the SOE and Requests for Disbursement submitted to JBIC was ₱5,502 million (**Table 4-4**).

Table 4-4. Amount of SOE Submitted to JBIC

MODE OF DISBURSEMENT	COMPONENT	AGENCY	AMOUNT OF SOE SUBMITTED (₱)
Special Account Procedure	Civil Works	DPWH	1,746,380,272.00
		NIA	2,511,585,189.36
		DAR	99,629,828.00
	Sub-total		4,357,595,289.36
	Institutional Development	NIA	30,767,213.00
		DAR	379,894,828.64
	Sub-total		410,662,041.64
Total		4,768,257,331.00	
Transfer Procedure	Procurement	DAR	125,971,431.45
	Consulting Services	DAR	607,726,983.32
TOTAL			5,501,955,745.77

Under the Special Account Procedure, the total amount of SOE submitted for replenishment was ₱4,768 million. Further, the total amount of Request for Disbursement under Transfer Procedure for procurement of equipment and Consulting Services were ₱125.971 million and ₱607.726 million, respectively.

The table below shows the total disbursement by JBIC for the three special accounts and the SOE submitted by DAR to JBIC.

Table 4-5. Disbursement and SOE Submission Under SAP

COMPONENTS	AMT. DISBURSED BY JBIC TO BSP	SOE SUBMITTED BY DAR TO JBIC	VARIANCE DUE TO FOREX FLUCTUATION
Civil Works 1	9,529,367,083	9,187,521,537	341,845,546
Civil Works 2	216,401,512	209,096,956	7,304,556
Institutional Development	942,782,268	915,491,233	27,291,035
TOTAL (in ¥)	10,688,550,863	10,312,109,726	376,441,137
Peso Equivalent (₱)	4,843,593,541.01	4,768,257,331.01	141,316,002.83
FOREX Rate Used			(₱0.3754 = ¥1; 03 Jul 07)

The balance of ¥376.441 million which is equivalent to ₱141.316 million was due to foreign exchange differential during the course of 7-year implementation of the Project.

4.3 GOP Counterpart Funds Utilization

As mentioned earlier, an allotment of ₱1,211.238 million was issued as GOP counterpart fund which was fully obligated and fully supported with the required cash and non-cash (for taxes). This amount represents 17.84% of the Total Project Cost (TPC). Expenditures increased mostly due to taxes required for civil works. During the course of implementation, it was observed that it was more beneficial on the part of the Philippine Government to implement the rural infrastructure subprojects by contract. Hence, for FMR alone, around 85% of the subprojects were implemented by contract which required around ₱156 million for taxes. This is 30% above the original overall tax requirements of the Project (₱120 million) due to significant increase in the actual number of subprojects undertaken by contract as against the original target of 20% of the subprojects.

The GOP counterpart fund supported those activities and items which were not eligible under the loan proceeds based on the approved Project Document and as specified in the Loan Agreement.

These items include: (1) pre-engineering studies which include feasibility studies, detailed design/program of works for infrastructure; (2) indirect cost for civil works and taxes; (3) remuneration of some Institutional Development Officers (IDOs) who guided and provided technical assistance to Irrigators Associations; and (4) overall management of the Project.

Below is the table on the GOP counterpart funds obligated by the three implementing/cooperating agencies covering 1 Central PMO, 15 Regional Offices and 61 Provincial Offices:

Table 4-6. GOP Counterpart Funds Obligated By Implementing Agency

Item	NIA	DPWH	DAR	Total	
	₱ Million	₱ Million	₱ Million	₱ Million	% of Total
Infrastructure Development	291.563	220.928		512.491	42.31
Pre-engineering	90.218	37.415	2.675	130.308	10.76
Institutional Development	68.133		3.063	71.196	5.88
Project Management	53.923	47.767	395.553*	497.243	41.05
Total	503.837	306.110	401.291	1,211.238	100.00
% Distribution	41.600	25.270	33.130		100.00

* Includes taxes for equipment

Bulk or 42.31% of the GOP funds was utilized for indirect cost of civil works which were not eligible for the loan proceeds. In addition, some of ₱130.308 million or 10.76% of the total GOP counterpart funds was used to finance the preparation of feasibility studies, detailed design and program of works of the different infrastructure subprojects. This brings the total GOP funds for infrastructure development to 53.07% of the total, equivalent to ₱642.799 million. The total amount for the overall supervision and management of the Project was ₱497.243 million or 7.32% of the overall obligations incurred by the Project.

Of the three agencies, NIA had 41.60% share of the GOP funds (₱503.837 million) detailed as follows:

- ₱90.218 million for pre-engineering works for communal irrigation and post-harvest facility subcomponents;
- ₱68.133 million for salaries of Institutional Development Officers who directly assisted the IAs; and,
- ₱345.486 million for indirect cost of civil works and management of the irrigation and PHF subprojects and institutional development activities.

Likewise, DPWH had ₱306.110 million broken down as follows:

- ₱37.415 million for the preparation of DD/POW of the FMR/bridge subprojects; and,
- ₱268.695 million for the supervision of the civil works and overall management of the components' implementation, including taxes.

About 51.05% of the allotment was for taxes (₱156.268 million) which do not need cash.

The total allotment received for DAR's operations was ₱401.291 million, which was fully obligated. This supported the preparation of development plans, validation of 150 ARC sites and confirmation of subprojects including the monitoring of the 467 on-going infrastructure subprojects, as well as overall management of all of the components, including the cooperating/implementing agencies.

Annexes 27-32 show the details of disbursements under the Special Accounts Procedures and Transfer Procedures.

5.0 EVALUATION OF INITIAL BENEFITS DERIVED

5.1 Results Monitoring and Evaluation

5.1.1 Mid-Term Third Party Project Assessment. Urbis Philippines, Inc., an independent group commissioned by DAP conducted a study to assess the initial effects vis-à-vis the overall objective, specific objectives, planned outputs and implementation processes and strategies adopted by the Project. Specifically, the *Results Monitoring and Evaluation Study* involves a scope of 50 ARCs nationwide at fourth year of project implementation (as of 30 September 2005), a physical accomplishment close to 70% and financial accomplishment a little over 59%. Evaluation parameters include effectiveness, efficiency, relevance, sustainability and appropriateness of organizing arrangements.

The scope is nationwide covering 50 ARCs, 40 of which are ARCs covered by the Project, 5 ARCs with baseline data (Group 1 Control ARCs) and 5 ARCs without baseline data (Group 2 Control ARCs). The 40 ARISP II-covered ARCs are distributed as follows: 61.8% (21 ARCs) in Luzon; 26.5% (9 ARCs) in the Visayas; 11.8% (4 ARCs) in Mindanao. Study methodology involved use of secondary data sources, collection of primary data through a household survey, key informant interviews) and focus group discussions; Data processing of over 150 output tables using SPSS software; Data analysis involved comparison of 'with' and 'without' the Project, 'before' and 'after' the Project (2001 versus 2004 conditions) and ARB versus non-ARB households.

In brief, the findings of the study are as follows: increase of 20.1 percent in the farmer's income from ₱37,080 to ₱58,550; 36% increase in average rice production, from 64.6 cavans per hectare to 89.6 cavans per hectare; 34% reduction in transport cost, from ₱22.76 to ₱15.03 per person; 58% reduction in travel time, from 42 to 17 minutes; 152% increase in water availability for potable drinking, from 7.5 hours per day to 19 hours per day and 70 percent savings on time for fetching potable water, from 40 minutes to 12 minutes. Further, an increase in the farmers' cooperatives by 36 percent, 66 percent increase in savings among the cooperatives assisted and that farmers adopted diversified farming and other livelihood projects which are appropriate to their needs and skills, were confirmed. The Table below shows the key performance indicators of the study.

Table 5-1. Key Performance Indicators

Indicator	Target
Logframe indicators	
Household income	Increased by at least 20% over baseline survey data (at constant prices) 3 years after ARISP II completion
Productivity	Increased from 3.15 mt/ha in 2001 to 5.0 mt/ha in 2005
Cropping intensity	Increased to 200% in 2005
Transport cost	Reduced by 38%
Hauling cost	Reduced by 50%
Travel time	Shortened by 46%
Post-harvest losses	Reduced by 5%
Incidence of water-borne diseases	Reduced
Households with access to water	Additional 13,000 households
Time to fetch water	Reduced
Economic activities of households	Increased
Maturity & credit worthiness of cooperatives	Increased by 2 levels
No. of irrigators' associations (IAs) organized	193 IAs
No. of farmers trained	At least 4,500 farmers
Proxy indicators of household income	More household assets acquired
	Households' perception of their socio-economic condition is positive
Proxy indicator of productivity	Better food security

The following are the specific findings of the study based on the performance indicators.

a. Effects on Household Income

Income levels

- The enabling environment created by government through its various services to ARCs is shown by:
 - More households in ARISP II ARCs with on-farm income in 2001 (2.5%) than in 2004 (51.5%);
 - Also more with off-farm income in 2001 (0.6%) than in 2004 (23.1%);
 - In 2004, more ARISP II households had on-farm income (51.5%) compared to Group 1 Control households (46.8%)
- From 2001 to 2004, household incomes had already increased by 20.1%, which is the target 3 years after ARISP II (**Table 5-2**).

Table 5-2. Increase in Household Income

ARC Category	2001 (Pesos)	2004 (Pesos)	% Increase
ARISP II ARCs	36,000	43,250	20.1
By ARB classification			
ARB households	37,200	47,100	26.6
Non-ARB households	36,000	42,000	16.7
By status of projects			
Where all projects completed	37,080	58,550	57.9
Where not all projects completed	36,000	41,540	15.4

Proxy indicator - Data on households that acquired assets reinforce the finding that household incomes had indeed increased in 2004.

Perceived effects - More households perceive themselves to be 'poor' in 2001 than in 2004 (**Table 5-3**).

Table 5-3. Perceived Effects

ARC Category	2001			2004		
	'Poor'	On-the-Line	'Not Poor'	'Poor'	On-the-Line	'Not Poor'
ARISP II ARCs	55.4	39.9	4.7	28.0	64.5	7.5
ARB households	48.0	45.5	6.4	23.7	68.6	7.7
Non-ARB households	58.8	37.4	3.9	30.6	62.0	7.4
Group 1 Control ARCs	57.0	33.1	9.9	43.3	47.5	9.2
ARB households	53.2	32.3	14.5	38.2	52.9	8.8
Non-ARB households	60.0	33.8	6.3	47.9	42.5	9.6

Poverty incidence - Using official results of the Family Income and Expenditure Survey in 2001 and 2003 as benchmark, it appears that poverty incidence decreased in 10 regions where 85% of RME-covered ARCs (34 ARCs) are located, while it increased in 4 regions. The four regions --- Region V (Bicol Region), Region VI (Western Visayas), Region VIII (Eastern Visayas) and Region IX (Western Mindanao). Poverty incidence is generally higher in Control ARCs than in ARISP II ARCs.

b. Effects of Irrigation Subprojects

Productivity - Measured in terms of palay yield, productivity in ARCs with functional ARISP II-supported irrigation system is estimated at 3.8 mt/ha. While the average recorded yield is 24% short of the target in 2005 (5.0 mt/ha), it is an improvement over 2001 observations --- by 50% in areas covered by any irrigation system and by 66% in areas not covered by any irrigation system. It is also better than the other estimates in 2004 --- by 15% compared to areas covered by any irrigation system and by 46% compared to areas not covered by irrigation.

Cropping intensity - Gleaned from the proportion of households that produced a second or third crop, noting that there had been no significant change in area planted, it appears that the targeted cropping intensity of 200% in 2005 is achievable.

Food security - A household is food secure when its own produce of rice is able to meet its food requirements. In ARISP II, it appears that increased yield and cropping intensity are being translated to better food security among households. In 2004, the proportion of ARISP II households that is self-sufficient in rice (43.4%) is higher than those in Group 1 Control ARCs (31.2%), although about the same as those in Group 2 Control ARCs. More ARB households in ARISP II ARCs (54.3%) are self-sufficient in rice compared with their counterparts in Group 1 Control ARCs (30.6%). More ARISP II ARB households are also self-sufficient compared with non-ARB households.

c. Effects of Road Subprojects

Transport cost - A reduction in transport cost is recorded in 16 ARISP II ARCs where there is at least one completed or ongoing road subproject --- by at least 38% in 14 ARCs and by less than 38% in 2 ARCs. The same is true for hauling cost where a reduction is observed in 13 ARCs --- by at least 50% in 7 ARCs and by less than 50% in 6 ARCs.

Travel time - Travel time for people has also been reduced in 24 ARCs --- by at least 46% in 10 ARCs and by less than 46% in 14 ARCs. Transporting cargo is faster too in 21 ARCs --- by at least 46% in 7 ARCs and by less than 46% in 14 ARCs.

d. Effects of Post-harvest Facilities. The objective of the post-harvest facility sub-component is to reduce post-harvest losses by 5%, presumably in palay and corn. Rather than quantify post-harvest losses, which requires experimentation and is not possible within the time frame of the study, the Study Team made a qualitative assessment of the effects of post-harvest facilities. Users of post-harvest facilities provided by ARISP II were asked about their level of satisfaction in using the facilities. Some 76% are either 'very satisfied' or 'satisfied' with the facilities. Some 95% opine that the ARISP II-supported facility had made their households 'better off.'

e. Effects of Rural Water Supply Facilities

- Not enough primary data to determine the incidence of water-borne diseases, but key informants, FGD participants and 63% of survey respondents attest that they now have access to clean and safe water;
- Time spent to fetch water has gone down four-fold --- from 2 to 3 hours in 2001 to about 30 minutes in 2004.
- The reduction in time spent to fetch water allows household members, especially women, to engage in economic activities such as vegetable gardening, animal raising, and to participate in community activities;
- By September 2004, about 5,800 more households had access to safe and potable water, which is expected to increase to 10,690 more once the ongoing subprojects are completed. This is 82% of the target number of households (13,000 more households).

f. Effects of Institutional Development Assistance

- Focusing on cooperative development, the DAP employed the COCI methodology in determining the level of maturity of cooperatives. The target is to move the maturity level of cooperatives by at least 2 levels.
- From baseline year to end-of-ARISP II intervention, the COCI of 74% of cooperatives moved up by at least two levels. No cooperative remained below the Establishing High (EH) level.
- From baseline year to the RME study period, the COCI of 48% of cooperatives also moved up by at least two levels.
- During the RME period, the lowest development level reached by cooperatives is the EH level.
- Based on the COCI of cooperatives at different periods, the ID component of ARISP II has been moderately successful.
- Development of irrigators' associations is the responsibility of the NIA. Out of the 193 target IAs, 17 IAs or about 9% had been organized.
- The Project has exceeded its target of at least 4,500 farmer-trainees under the agricultural support services, having trained about 4,600 farmers on better technologies.

g. Synergy in Project Components. Using the road subproject as focal point, synergy in components is evident in the following:

- Better productivity is achieved in areas where there is a combination of road and irrigation subprojects. Crop diversification is practiced in these areas --- planting of cash crops in place of long gestation crops like tobacco.
- Expanded membership and increased capital build up are two of the more pronounced integrative effects of road and cooperative development subprojects. Road subproject opened the cooperatives to more business opportunities.
- Combination of road and post-harvest facility subprojects lends to more markets and better prices for farmers' produce.

h. Relevance of Subprojects and Activities. ARISP II interventions are very relevant to the needs of the communities and are the same interventions requested by them. Majority of community members reached by the Study Team during the FGDs and the household survey are hopeful that ARISP II would continue under a third phase. Any extension would allow them to pursue other priorities identified under ARISP II.

i. Suitability of Organizing Arrangements. The division of tasks as well as the re-grouping of tasks for coordinated action, both at the DAR and in national partner agencies, are clearly defined in manuals that had been updated and disseminated to concerned units. The reporting relationships and chain of command are clearly defined in the organizational charts. Project personnel are technically equipped, are conscious of the need to operate within a team environment. These factors, including the strong interpersonal relationship among Project personnel, are key contributors to the success that ARISP II has achieved at this stage.

j. Attribution of Changes in Socio-economic Conditions. Earlier in this report, mention was made of the 'better off' condition of majority of survey respondents in 2004 than in 2001. Among those who perceive themselves to be 'better off', such condition is attributed to the following subprojects: Rank 1 - road subprojects; Rank 2 - rural water supply subprojects; Rank 3 – irrigation subprojects; Rank 4 – post-harvest facility subprojects; and Rank 5 – institutional development interventions.

k. *Remaining Challenges.* The challenge to management is how to sustain the positive effects of subprojects as well as the operation and maintenance of infrastructures established and of organizations strengthened under the Project. More focus and attention on these matters is advisable for the remaining months of ARISP II. Some concerns came up in the course of this study such as the unexpected findings on third crops in non-irrigated farms, how the COCI approach could complement the ALDA system of DAR, the optimal combination of subprojects for better synergy and the level of net farm income particularly in areas with high investment in infrastructure. The Study recommends that in-house studies be carried on these subject matters.

5.1.2 End-of-Project Field Reports

Based on available reports submitted by the DAR Regional and Provincial PMOs covering several ARCs, in particular those lifted from the IDC-Quarterly Performance Monitoring Reports (QPMR) and the FAPsO Results-Based M&E System, a number of preliminary results have already become observable from several covered ARCs.

5.1.2.1 Infrastructure Development Component

a. *Communal Irrigation Facilities.* According to the PPMO reports, farm productivity, more particularly in terms of palay yield, increased during the wet season by 38.70% (from an average of 3.23 MT/ha to 4.48 MT/ha). During the dry season, the increase was by 41.74% (an average of 4.72 MT/ha from 3.33 MT/ha).

Taken against the global target of increasing palay production from 3.15 MT/ha to 5 MT/ha, the foregoing results indicate that while there may be some difficulty in attaining the target of 5 MT/ha, the targeted 58.73% rate of increase is actually achievable. This is especially so when one considers the fact that many of the irrigation facilities had just been completed at the time of the reports; thus, their full potentials had not yet been actualized.

The PPMO reports arrived at findings that the number of croppings per year for palay increased by 100% (from an average of 1/year to 2/year). This development was attributed to the effects of irrigation on the farmlands that benefited from this component.

b. *Farm-to-Market Roads.* Average travel time was cut down by around 58.15% (from 41.67 minutes to 17.44 minutes) per the PPMO reports. These figures indicate that the global target of a shortened travel time of 46% has already been achieved.

Average transportation cost per person decreased by around 33.96% (from ₱22.76 to ₱15.03), according to the PPMO reports.

Average hauling cost (for palay) also decreased. Per the PPMO reports, the decrease was from ₱72.44 to ₱49.41 (or by 31.79). The global target of reducing hauling cost by 50% is easily very attainable—as in fact it has already been reached in many areas covered by FMR subprojects.

Traffic density in terms of average daily vehicle count increased by 81.82% (i.e., from 55 to 100). The increase in the inflow and outflow of vehicles to and from the farms and the market centers indicates that they have now become more accessible to one another. Taking it further, therefore, this positive situation presupposes the entry of more economic activities and opportunities into the ARCs.

c. *Post-Harvest Facilities.* There were no reports yet that could aid in ascertaining any significant results, particularly in terms of reduction of post-harvest losses and increase in the farm gate prices of commodities. This situation, however, could be readily explained by the fact that most of the PHF subprojects were just recently completed, and it is estimated that any substantial effects would be discernable only around months or years after the start of operations. Further studies are needed to validate findings and to quantify the effects as to reducing post-harvest losses and increasing the farm gate prices of commodities.

d. *Rural Water Supply.* The estimated number of households (18,586) with direct access to potable water has exceeded by 13.31% the global target of 18,029 HH. However, despite the increase in HH with access to clean and safe water, there is still a need for a study to determine and assess any effects in terms of reduction of water-borne and/or -related diseases.

Water availability increased by 152.32% (from a daily average of 7.53 hours to 19.00 hours).

Time spent in fetching water decreased by 68.36% (from an average of 40.67 minutes to 12.87 minutes) per the PPMO reports. A significant implication of this situation is, since less time is now being used up for this activity, more time is now available especially among the womenfolk to engage more actively in economic activities such as vegetable gardening and animal raising, as well as participation in community functions.

5.1.2.2 Institutional Development Component

a. *ARC Level of Development.* Of the 150 ARCs assisted under the Project, 128 (or 85.33%) were subjected to ARC Level of Development Assistance (ALDA) for the years 2001 through 2006 per data made available by the DAR Bureau of Agrarian Reform Beneficiaries Development (BARBD). Using the results of these assessments, the following were derived:

- i. Comparing the years 2001 [start] and 2006 [end], a total of 102 ARCs (or 79.69%) showed varying degrees of improvement in their respective ALDA levels. On the other hand, the levels of 22 ARCs (or 17.19%) remained unchanged while those of 4 ARCs (or 3.12%) went down slightly.
- ii. The number of ARCs categorized as Level 5 in 2001 increased from 14 (10.94%) to 83 (64.84%) in 2006. This reflects a remarkable 492.86% increase. Particularly worthy of mention at this point are five (5) ARCs that managed to consistently remain at Level 5 all throughout the six-year period (**Table 5-4**).

Table 5-4. List of ARCs with Level 5 ALDA Throughout Six Years

Region	Province	ARC
I	Ilocos Norte	Sinamar
	Pangasinan	Sto. Domingo
III	Bataan	Balanga BSTC
	Bulacan	Maronquillo
IV-A	Cavite	Naic

- iii. Just as significantly, at the other end of the spectrum, all of the 24 ARCs previously categorized as Level 1 in 2001 moved to higher levels in 2006. Most notable are seven (7) ARCs which rose dramatically from Level 1 in 2001 to Level 5 in 2006 (**Table 5-5**).

Table 5-5. List of ARCs with ALDA Level Increase

Region	Province	ARC
I	Pangasinan	San Macario Sur
III	Nueva Ecija-South	Gabaldon
IV-A	Batangas	San Isidro/Nazi
		MBC
IX	Zamboanga del Sur	Tambulig Cluster
XII	South Cotabato	POBUSILLA
XIII	Agusan del Norte	ROSSAN

Beyond any doubt, the Project was able to create an impact on the ARCs it assisted as indicated by the generally appreciable improvements in their ALDA status. However, the

extent by which these positive movements can be attributed to the interventions introduced under the Project cannot yet be distinctly determined as this will still have to be subjected to further study in the future.

b. *Organizational Maturity Development of Farmers' Organizations.* Of the 146 cooperatives assisted under the Project, 97 cooperatives (or 66.44%) were consistently assessed by BARBD for their organizational maturity ratings and levels throughout a six-year period spanning 2001 to 2006. Using the results of the Organization Maturity Assessment (OMA) instrument, and comparing in particular the years 2001 [start] and 2006 [end], the following were derived:

- i. In terms of rating, 80 cooperatives (or 82.47%) registered improvements with an average rate of increase of 13.76%. On the other hand, the ratings of 17 cooperatives (17.53%) went down slightly by an average of 6.75%. Four (4) cooperatives registered the biggest improvements (**Table 5-6**).

Table 5-6. Cooperatives With Improvement in OMA Results

Region	Province	Cooperative	Increase
XIII	Surigao del Sur	Bayan Free Farmers MPC	37.00%
I	Ilocos Sur	Tay-ac MPC	35.50%
III	Aurora	Simbahan ARBs Cooperative	33.99%
CAR	Mountain Province	Madongo MPC	32.78%

- ii. The organizational maturity levels of 59 cooperatives (or 60.82%) improved during the period, while those of only 8 (or 8.25%) went down slightly. The rest (30, or 30.93%) remained unchanged.

Of the 30 cooperatives with unchanged maturity levels, 15 managed to consistently remain at Level 5 all throughout the six-year period (**Table 5-7**).

Table 5-7. Cooperatives with Level 5 OMA

Region	Province	Cooperative
CAR	Mountain Province	Besao MPC
		Dagopan MPC
		Sayapot MPC
I	Ilocos Norte	Namnama MPC
	Pangasinan	Guelew MPC
		Sto. Domingo MPC
II	Isabela	ARBA MPC
III	Bataan	Greater Bani MPC
	Bulacan	Maronquillo MPC
	Nueva Ecija-South	Tagumpay-Bayanihan PMPC
IV-A	Laguna	San Benito MPC
X	Bukidnon	Bismartz Small Farmers MPC
XI	Davao del Sur	St. Michael's MPC
		Kooperatiba ng New Murcia
XII	Sultan Kudarat	Bacbacan MPC

- iii. Nine (9) cooperatives improved dramatically from Level 1 in 2001 to Level 5 in 2006 (**Table 5-8**).

Table 5-8. Cooperatives with Level 1 to Level 5 OMA Improvement

Region	Province	Cooperative
CAR	Mountain Province	Madongo MPC
I	Ilocos Sur	Arnap Sunrise MPC
	Pangasinan	Catuday Farmers MPC

III	Aurora	Simbahan ARBs Cooperative
		Borlongan ARBs MPC
IV-B	Palawan	Punang Christian Muslim Native MPC
XIII	Surigao del Norte	Sering Agra Credit Cooperative
	Surigao del Sur	San Roque MPC
		Bayan Free Farmers MPC

- iv. Also worth noting is the marked increase in the number of cooperatives classified as Level 5. In 2001, there were 33 Level 5 cooperatives, equivalent to 34.02% of the total number covered by OMA. This number increased to 72 (or 74.23%) in 2006, indicating a remarkable 118.18% rise in the number of Level 5 cooperatives over a six-year period.
- v. Just as significantly, only one cooperative (SANVIDAKINSI MPC) stayed at Level 1 at the end of 2006 although it managed to move up to Level 4 in 2004 and Level 3 in 2005.

As a whole, the OMA findings serve to validate the information on cooperative development gathered and submitted by the PPMOs. They also strongly support the final COCI results reported by DAP which, using the same set of cooperatives covered by the OMA, showed a similar pattern of growth among these organizations.

5.2 Economic Performance

More specific to the policy framework and the project goal, the Project as designed, aimed to contribute to the Government's overall poverty reduction campaign which has been articulated in the Medium Term Philippine Development Program, i.e., "to fight poverty and build prosperity for the greatest number of Filipino people."

In particular, the goal of the Project was to help increase HH incomes in Project-assisted ARCs. As articulated in its logical framework, the goal was to increase HH incomes by at least 20% over the baseline survey data, estimated in constant prices, three (3) years after project completion.

As reported by the PPMOs, the average annual HH income (farm, off-farm, and non-farm combined) among the ARCs covered by the Project increased to ₱70,392.33 from a baseline of ₱55,510.09. This corresponds to an increase of around 26.81%, which could be partly attributed to the interventions under the Project.

A similar trend was observed under the mid-term RME study conducted by Urbis. In this study, it was found out that, even while still at its fourth year of implementation, the Project saw the average annual HH income in assisted ARCs increase by around 20.14%.

Aside from presenting statistical figures in terms of income, the RME study also probed into how the beneficiaries actually perceived their socio-economic conditions mainly as a result of the interventions initiated by the Project. Here, it was found out that fewer households in 2004 perceived themselves to be "poor" as compared to their situation in 2001. Conversely, therefore, more households considered themselves to be better off in 2004 than in 2001.

Also, using official results of the Family Income and Expenditure Survey in 2001 and 2003 as benchmark, the RME found out that, as a whole, poverty incidence in the Project ARCs was generally lower in 2004 than in 2001. Specifically, poverty incidence in Project-assisted ARCs decreased in 10 regions. However, it increased in 4 Regions (i.e., Regions V, VI, VIII, and IX).

The foregoing figures indicate that the overall goal of a 20% increase in HH incomes is very attainable, as it may in fact have already actually been achieved in some ARCs. Also, poverty incidence seems to have been significantly reduced in most ARCs covered by the Project. All of these, however, will have to be followed through and fully validated in a further study. In the meantime, the challenge remains for DAR to help in sustaining the socio-economic growth achieved in these ARCs through the interventions of the Project.

6.0 INNOVATIVE APPROACHES AND STRATEGIES

6.1 Infrastructure Development Component

To enhance the existing mechanisms for the infrastructure development component, the following were adopted in order to address implementation bottlenecks and pave the way for effective and efficient implementation of sub-projects:

- a. Conduct of training and coaching by the CPMO/Consultants on the preparation of feasibility studies, particularly on the hydrological aspect of irrigation planning and design for all NIA regional and provincial planning engineers, on the preparation of detailed design of roads and structures for DPWH engineers and on feasibility studies and detailed design of rural water supply for LGU and DAR engineers. This resulted in better quality of studies/design.
- b. Employed team validation approach in the evaluation of the proposed projects. The team approach requires that both institutional and technical experts validate and evaluate the proposed subproject together; thus, ensuring that the required technical, institutional and economic considerations are appropriately satisfied prior to final recommendation of said proposed projects.
- c. The conceptual design stage was introduced in ARISP II, where NIA/DPWH submitted the preliminary designs and design calculation of major irrigation/road structures for review by the CPMO through the Consultants prior to preparation of final design by NIA/DPWH. At this stage, design issues were identified and whenever necessary further site validation and technical discussion were undertaken to effectively address technical issues.
- d. The Pre-Construction Conference was also introduced in ARISP II. Although this was done in the latter part of the project, this process resulted in better coordination, smooth prosecution of civil works and effective monitoring of the sub-projects. During the conference, the final design of the project, program of work/contract agreements, quality control plan, construction strategy and other conditions of the project were discussed by the implementing agency to the construction team that will be assigned to the project, concerned LGU and DAR engineers, beneficiaries and other stakeholders. The objective of the conference was to have a common understanding of the details of the sub-project, including the responsibilities of implementing office and officers assigned.
- e. The granting of authority by the NIA-CO to the NIA-Regional Offices for the procurement of civil works that are beyond the authority of the NIA-RIO addressed the delays in the procurement procedures.
- f. The conduct of Technical Consultation meetings, whenever necessary, among implementing offices of DPWH, NIA, LGU, CPMO Consultant and concerned DAR-R/PPMOs during pre-engineering and implementation stages facilitated resolution of outstanding issues.
- g. The conduct of quality control inspection by the DPWH-Quality Assurance Unit prior to final inspection and acceptance of completed subprojects served as guarantee that completed subprojects passed the approved standards and specifications.
- h. Related to the establishment of AIM-C, the existing PHF designs were modified to suit the requirements for market information dissemination, marketing of products at the federation level, agri-extension and microfinance operation.

6.2 Institutional Development Component

The Project's Institutional Development Component embarked on several pioneering activities that showcased ARC connectivity, e.g., the establishment of the AIM-C; microfinance technology dissemination for ARC Cooperatives; credit facilitation; and adoption of an integrated physical and institutional approach to O&M performance assessment known as the Appraisal through Rapid Reconnaissance of Operations Work (ARROW).

These initiatives likewise brought forth important insights on how the ID component under Phase III of ARISP will be implemented and managed.

6.2.1 The Agrarian Information and Marketing Center (AIM-C): During the course of implementation of the Project, it was observed that primary cooperatives, given their limited size of operations, were experiencing difficulties of sustaining the viability of their existing business operations, much more to become globally-competitive entities. Foremost of the operational concerns noted include low price of farm products, low productivity and insufficient capital to implement new businesses. To address these concerns, the Project adopted a two-dimensional approach to promote and develop ARC connectivity during its last three years of project duration, to wit: (i) formation of provincial-based ARB cooperative federation for purposes of economies of scale and improving bargaining power of the ARBs/farmers; and (ii) establishment of AIM-C building with the primary goal of addressing problems related to ARBs/farmers' access to market information, new technologies and marketing.

The AIM-C strategy was pursued as an innovation to the implementation strategy in individual ARCs where the promotion and development of POs, services and business were treated independently. It was observed that the inter-ARC involvement was not clearly defined. Hence, development did not radiate province-wide nor significantly contribute significant improvement in the ARCs responsiveness to market forces and competitiveness.

The prominent features of the AIM-C strategy are the following:

- a. ARC Involvement.* The bias is to involve all ARCs in the province. This perspective is a departure from the practice of involving only ARISP I and II-assisted ARCs, or DAR unit/project assistance which is usually limited to their specific programmed-assisted ARCs.
- b. Institutionalization of ARC Connectivity.* The AIM-C strategy espouses the formation of cooperative federation which is a structure formalized by participating cooperatives. The cooperatives represent ARC concerns, products, among others, at the federation level; thus realizing inter-ARC linkages and collaboration. This is not deliberately undertaken in other IDC strategies.
- c. Scope of services/operations:* The major services or operations of AIM-C are microfinance, marketing, and agri-extension which are developed and implemented by, for and operated for all ARCs. This is an improvement from the conventional approach of developing such services/operations independently for each ARC.

In setting up the AIM-C and making it operational, the Project deployed a Consultant and an Agrarian Cooperative Business Officer (ACBO), as well as provided training support to the Federation.

A Livelihood Development Expert was tapped to assist CPMO conduct a comprehensive study of rural development in Japan with three cases studied, namely: Sakuma town, island development for Nijjima village, and agricultural development in Narita City. The Project decided to adopt the concept of "chuku-han" (antenna shop) of Sakuma town which established the direct sale system for livelihood improvement project due to the latter's similarity in economic and institutional development level of cooperatives in the Philippines. The antenna shop was later changed to AIM-C. Specifically the consultant developed the guidelines on establishment of the AIM-C. It served as major reference for the pilot testing of AIM-C.

The ACBO, deployed to strengthen the business and enterprise development of cooperative federation, was functionally under the guidance of the CPMO and Consultants. The ACBO was assigned to the PPMO and assisted by Agricultural Support Development Specialist and Institutional Development Coordinator in the PPMO. Likewise, said officer worked hand-in-hand with the ARISP Implementing Team at the ARC level headed by the Municipal Agrarian Reform Officer.

The Board of Directors (BOD), management staff of federations and their primary cooperative/association members were trained on different modalities such as: formal, exposure trip/immersion in existing operation of microfinance institutions, production technology, product packaging, and market outlet operation. The training provided were mostly oriented on the types of business/service of the federations. Organizational development training conducted was limited to Strategic Planning Workshop and PSP formulation.

The tripartism implementation strategy of the Project was further concretized in AIM-C where government sector's roles were evident when: a) LGU provided the lot and assisted the federation in the clearing of informal settlers on it; and b) SUC actively participated in making operational the agri-extension services of the AIM-C by sharing their matured technologies, expertise, among others. The participation of the private sector was prominent in the business ventures pursued by the Federation in partnership with business entities (institutional buyers and suppliers) and resource providers (e-trade facility, seed companies, etc). The AIM-Cs are presently being operated by the federation of cooperatives.

The AIM-C strategy has an inherent built-in mechanism for ARCs to exchange experiences, share know-hows and jumping board for more sustained collaborative efforts in pursuing ARC development, holistically. This facilitated the concern of providing a venue for regular inter-ARC sharing which is absent in the other IDC strategies.

The AIM-C strategy promotes the practice of pooling of resources among primary cooperatives to meet client requirements and pursue other development programs collectively. Unlike in other IDC strategies where pooling of resources take place and limited at the primary cooperative level and sourced out from individual members.

d. Initial Results. The pilot-testing of AIM-C done in the provinces of Quezon (for Luzon) and Agusan del Norte (for Mindanao) yielded encouraging results.

The input-level results are the following:

- i. ARC Reached: 25 ARCs are involved in AIM-C-Pagbilao and 33 ARCs in AIM-C-Butuan City, Agusan del Norte. The AIM-C in Butuan City is now working towards involving other ARCs in other provinces of CARAGA Region.
- ii. Co-op Federation Organized: One federation of cooperatives per pilot province was organized. The federations in Quezon and Agusan del Norte were registered with Cooperative Development Authority (CDA) as the QFARC and FEDARCCO, respectively.
- iii. Membership: The CDA-registered two (2) federations have a total membership of 58 primary cooperatives/farmers' associations as follows:
 - QFARC with 25 member cooperatives, and
 - FEDARCCO with 33 member cooperatives/farmers' associations.

The output-level results obtained were:

- i. *Marketing:* 54 products from 33 cooperatives in QFARC and 25 products from 8 cooperatives in FEDARCCO are displayed and sold in the AIM-Cs. The recorded average sales of the two federations are ₱5,000 per day. Business to business (B2B) Centers were established in these AIM-Cs enabling the federations to post 19 ARC products in their website geared towards electronic-trade.

ii. *Agri-extension:* QFARC entered into a MOA with the Quezon National Agricultural School (QNAS) for provision of technical support to QFARC's agri-business ventures such as swine (breeding to meat processing), crop (demonstration farm to trading) and poultry (egg to dress chicken production). The existing extension programs of government line agencies such as DA and DAR and of the LGUs were tapped by FEDARCCO in the conduct of trainings for its members. Likewise, graduates of the President Diosdado Macapagal Agrarian Reform Scholarship provided technical expertise during the trainings. Classroom trainings were conducted in the AIM-C building.

iii. *Micro-finance:* FEDARCCO entered into joint venture agreement with Baba Foundation Inc. (BFI) and provided 565 farmers/women with micro-finance services such as loans, savings, micro-insurance and payment services. Meanwhile, QFARC is in the process of negotiating/finalizing its microfinance ventures with a cooperative bank and a rural Bank operating in Quezon Province

6.2.2 Micro-finance Technology Dissemination for ARC Cooperatives. Cognizant of the ARBs and their organizations' prevalent problems of lack of access to capital or formal lending institutions, pre-identified primary cooperatives were assisted to perform micro-financing as a long-term solution. The MF technology dissemination provided an opportunity and/or mechanism for the pre-selected cooperatives to gain knowledge and skills on the MF program of the microfinance institutions (MFIs). The MFIs shared with the pre-identified ARISP-II cooperatives their MF technology, resources and other best practices on MF.

The MF modeling has resulted to the following accomplishments and milestones:

a. *Pilot Cooperatives.* Three (3) cooperatives were assisted, namely Epiphany Multi-Purpose Cooperative (EMPC) of Minagbag-Abut ARC in Isabela, Dizon Farm Workers Cooperative (DFWC) of Mawab Cluster ARC in Compostela Valley and Los Arcos Multi-Purpose Cooperative (LAMPCO) of Prosperidad ARC in Agusan del Sur, have adopted and now operating MF technologies, particularly the GRAMEEN and Association for Social Advancement (ASA) models.

b. *Partner MFIs.* Hometown Finance Corporation was tapped by EMPC as its partner MFI for MF technology transfer. DFWC and LAMPCO selected BFI as their partner MFI under a joint venture agreement.

c. *Initial Results of Implementation:*

- i. Clients: 398 individual clients; 8 MF centers with an average member of 31 MF solidarity groups of 5-10 individuals.
- ii. MF products: Four (4) major types of MF products were developed by the participating cooperatives, these are loans, savings, micro-insurance and payment services.
- iii. Loans released: A total of ₱3.5 million was extended by the DFWC, EMPC and LAMPCO to its clients. A 100% collection rate is posted by these cooperatives.
- iv. Savings mobilized: A total outstanding savings of ₱301,268.37 was mobilized by DFWC and LAMPCO through savings products, such as capital generation fund, center fund and reserve fund while EMPC has an outstanding savings of ₱665,834.51.
- v. Micro-insurance: ₱28,344.00 was contributed/pooled by 195 clients as their welfare fund. Likewise, ₱13,502.90 was collected as loan insurance involving 195 loan clients.
- vi. Payment Service: The MF programs of DFWC were able to collect a total of ₱51,755.00 CBU payments of its 72 individual clients.

6.2.3 Credit Facilitation. Credit facilitation undertaken under the Project was aimed to improve the access of its cooperatives with no external borrowings to the different credit facilities/programs of the formal lending institutions operating in various localities of the country. In ARISP I, credit facilitation involved providing assistance to ARB cooperatives for them to be able to obtain loans from LBP.

a. *Cooperatives assisted:* 192 participants from 63 cooperatives with no external borrowings were trained through 3 batches of Credit Facilitation Training Program;

b. *Creditors tapped:* During the training, 10 creditors, namely, United Coconut Planters Bank (UCPB), LBP, Philippine Credit Finance Corporation (PCFC), QuedanCor, NLSF, Peace Equity Fund (PEF), Rural Banks, Cooperative Banks, Mindanao Alliance for Self-Help Society – Southern Philippine Education Cooperative Center (MASSPEC) and Fundacion Santiago, shared their respective loan programs and requirements.

c. *Initial Results.*

- i. *Credit obtained:* Among the 63 trained cooperatives, 8 cooperatives were able to avail credit assistance from 5 creditors consisting of 1 NGO, 2 LGUs, 1 LBP and 1 commercial bank involving seven (7) types of livelihood projects in the total amount of ₱2.2 M. Meanwhile, 10 cooperatives are in the process of accomplishing the loan documents of their prospective creditors.
- ii. *Credit facilitation tool:* A draft handbook on credit facilitation for cooperatives was developed and validated with LBP, Cooperative Union of the Philippines (CUP), Polytechnic University of the Philippines (PUP)-Institute of Cooperative, CDA, primary cooperatives and DAR field staff.

6.2.4 Adoption of ARROW as Sustainability Tool. Mindful of the need to ensure the sustainability of the Project's gains in the ARCs, particularly on the subject organizations, and in order to arrest the decline in the organizational maturity of these organizations, the CPMO devised an instrument called "Appraisal through Rapid Reconnaissance of Operations Work "(or ARROW).

This instrument, which covered post-harvest facilities, rural water supply, cooperative and the Provincial AIM-C, was designed for use primarily by the RPMOs which will continue to monitor and evaluate the ARCs and the subject organizations after the Project's phase out. It is also targeted that instrument be institutionalized eventually at the subject-organization-level for them to perform their own assessment or evaluation of the physical and institutional aspects of the subprojects to ensure sustainability.

The ARROW was first used to evaluate the physical development of the system and organizational development of the water users associations sometime in the middle of 2006, and was later on pilot-tested in selected cooperatives which either experienced a decline in their organizational maturity levels or continued to remain at the lowest maturity level.

Initial Results. Although implemented on a limited scale and trial basis, the assignment of ARROW to the RPMOs has significantly enhanced their ability to perform monitoring and evaluation function of the different components/subprojects of the Project. The ARROW has likewise shown and facilitated a better understanding by the Project stakeholders of the interface dimensions of institutional development and physical infrastructure enabling them to address the findings more comprehensively instead of a compartmentalized manner.

In the case of RWS subcomponent, the Regional PMOs have already conducted the ARROW for almost 90% of completed subprojects. As a result of its conduct, repairs and maintenance activities in some of the facilities found to be needing maintenance works were facilitated. In the same manner, the ARROW effected adjustments in the O&M policies of WUAs, i.e., monthly tariff fee, frequency of water testing, water use policies, among others.

6.3 Project Management

As mentioned earlier, project management for ARISP II was mainstreamed into the regular structure and operations of DAR, NIA, DPWH, and LGUs. This set-up was pioneered in ARISP I drawing from the existing CARP Implementing structure and mechanisms. In this aspect, ARISP II has been cited for its best practice in terms of mainstreaming ODA project operations within the DAR bureaucracy and for its relatively smooth and effective inter-agency coordination mechanisms.

Within DAR, a Central PMO, 15 Regional PMOs and 62 Provincial PMOs (CPMO, RPMOs, and PPMOs) were organized through the issuance of Special Orders signed by the Secretary designating regular staff of DAR to perform their respective functions in the implementation of ARISP II in concurrent capacity. The core team at each level is composed of a project manager, assistant project manager, institutional development coordinator, agricultural development coordinator, engineer, and administrative support staff. Financial matters are handled by the regular accounting, budget, and cashier units of DAR at all levels. This set-up ensured that all project policies, operations, decision-making are known to and managed by the DAR officials at all levels.

At the Central level, the Project is governed by the Project Coordinating Council, an inter-agency body headed by the DAR Secretary, which approved the guidelines and policies of the project. The Project operates under DAR's "one-PMO system" wherein the CPMO is supervised by the Project Implementation Officer (PIO) and Executive Director of FAPSO and financial transactions are handled by the DAR Finance and management Office. The CPMO takes care of the day-to-day operations, planning and coordination with implementing agencies, oversight agencies and donors, funds programming, contracts supervision, and progress monitoring, among others. A consulting firm assisted the CPMO in engineering, institutional and financial management aspects. Technical and administrative support staff were hired to assist the CPMO core team.

At the regional level, the RPMO is headed by the DAR Regional Director who is also the head of the inter-agency PMO composed of counterparts from NIA, DPWH, NGO partner, and other implementing units in the region. The DAR Regional Office, as Regional Project Manager, oversees planning, project evaluation, implementation, operations and monitoring and evaluation of all project activities of the different PPMOs within the regions.

The set-up is replicated in the PPMO where the PARO is the project manager and head of the inter-agency PMO at the provincial level. The PPMO supervises field activities through the MARO and the Development Facilitators assigned to each ARC.

This project management set-up has gained wide acceptance and enhanced ownership of the project among the DAR offices nationwide. Although the set-up is not perfect and has its own intricacies, it has proven that the DAR bureaucracy has developed its capacity to implement and successfully complete a large-scale Japan ODA loan project.

The presence of standard operations manuals and guidelines which were disseminated to field implementers, partners and LGUs enabled the project teams at various levels to work harmoniously under a common operational framework and in a more organized manner. Standard operating procedures and communications flow ensured that protocol is observed, all key officials concerned are informed and that project activities are properly coordinated with concerned offices.

Project delivery mechanisms were in the form of the central, regional, and provincial inter-agency PMOs which held meetings wherein project status and problems were discussed, issues were resolved, and decisions were made. Regular coordination meeting were done in many areas, although coordination and inter-agency relationships were strained in some areas. At the ARC level, the ARC

Implementing Team headed by the MARO and composed of the field representatives of NIA, DPWH, LGUs, NGOs, and farmers organizations also hold coordination sessions during project implementation. These mechanisms have proven to be facilitative and effective in many areas.

7.0 PHASE-OUT AND SUSTAINABILITY

7.1 Infrastructure Development Component

7.1.1 Turn-over. The phase-out of the Project commences once the turn-over documents have been duly accomplished, approved and signed by concerned parties. Different turn-over documents (TOD) are required for each of the subcomponents (**Table 7-1**).

Table 7-1. Required Turn-Over Documents

Subprojects	Turn-over Documents
1. Irrigation	Certificate of Acceptance, Certificate of Ownership (for sub-projects with 30 % equity generated), and Amortization schedule (for sub-projects with 10 % equity generated)
2. PHF	Certificate of Acceptance and Certificate of Ownership
3. Farm-to Market Road	Certificate of Acceptance
4. Rural Water Supply	Certificate of Turn-over and Acceptance

As of Project completion date, the required turn-over of 91 irrigation subprojects, 108 FMR subprojects, 60 PHFs and 80 RWS were executed. After March 31, 2007, subprojects not yet turned-over shall be the responsibility of the agencies concerned and ensure that the required TODs are to be complied with by the following: NIA for the irrigation and PHF subprojects; DPWH for the FMR subprojects; and the DAR-Provincial PMO for the RWS subprojects.

7.1.2 Operations and Maintenance Manual. The concerned subject-organizations prepared their respective O&M Manual which will serve as their reference for the day-to-day operation of the facilities/systems provided.

At present, 69 IAs/IGs formulated their O&M Manual required for the completed subprojects. After March 31, 2007 NIA shall ensure that irrigation and PHF subprojects which were not yet turned-over shall comply with the required O&M manual; while DAR-Provincial PMO shall ensure that the WUA/WUG formulate their manual.

7.1.3 Maintenance of the Facilities

a. Farm-to-Market Roads and Rural Water Supply. The concerned Municipal LGU are allocating annually funds for the maintenance of the FMR subproject as stipulated in the Sangguniang Bayan Resolution. Also, the MLGU shall assume responsibility in the major repairs and replacement of water systems while minor repairs shall be shouldered by the WUA/WUG.

b. Irrigation Systems. The concerned Irrigators Association shall collect 100% irrigation service fee (ISF) from the member-irrigators, in the form of cash or in-kind, for the operation of the system and periodic maintenance and repair of the facilities.

c. Post -Harvest Facility. For the service-type PHF, the Cooperative shall collect 100% service fee for maintenance of the facility. Also, for the business-type PHF, the Cooperative has to generate capital build-up for capital in their business operation.

7.2 Institutional Development Component

a. Phase-out Plan and Sustainability Plan. The phase-out and sustainability plans were prepared one month prior to the completion of LBPIs' engagement for cooperative development. A phase-out plan spells out the remaining activities to be carried out by the DAR PPMOs through its BDCD once the engagement of LBPIs has been terminated. It facilitates the smooth transition

of the development intervention into DAR's regular PBD functions. In this plan, the project monitoring activities of the Provincial Project Management Offices (PPMOs) were integrated into the regular function of the BDCD.

The sustainability plan was formulated in order to provide the "blue print of action" of the cooperatives stating therein the activities to be undertaken beyond the project life.

b. Operations Manual. The Project facilitated the development of Operations Manuals for use by the management and staff of the subject-organizations who assumed the responsibilities in operating and maintaining the completed facilities. This enhanced their technical competence enabling them to perform their tasks and functions in accordance with the standard level of performance. Operations Manuals were formulated by the concerned subject-organizations for cooperative management, operations and maintenance of communal irrigation systems and rural water supply systems operation and management/maintenance.

c. Mechanisms for Updating IDC Plans and Programs

i) PO Level. At the PO level, there is an established mechanism of continuously updating plans and programs which were formulated and adopted during the Project's implementation through their respective Board of Directors and General Assembly meetings. Likewise the POs' Audit Committee is regularly conducting performance review to ensure that plans and programs are properly executed.

ii) DAR IDC Support. DAR spearheaded the updating of the ARC Development Plans based on the municipal/barangay development plan employing the participatory area planning (PAP) methodology. This will be regularly done in order to track down progress in ARC development as well as the status of the performance of the subprojects already installed. At Central Office level, the Support Services Office shall continue to monitor ARC development including the status of Project-assisted POs and infrastructure facilities and systems.

iii) Continuing Training Support. Expectedly, the subject-organizations tasked to operate and maintain the infrastructure facilities will continuously encounter turn-over in the composition of their leadership and management structure due to election, personnel advancement and for whatever reasons. Moreover, the development of second line leaders is vital in the organization. Hence, subject organizations set aside portion (usually 10 % of their income) of their internally-generated funds to finance their own training, education and development programs. Training programs are periodically conducted for management and staff of the subject-organizations.

7.3 Sustainability Monitoring

7.3.1 The Appraisal through Rapid Reconnaissance of Operations Work (ARROW). The CPMO formulated the ARROW as an assessment tool to gauge the current status of the RWS, PHF, cooperative development and agri-support development subprojects. It is likewise intended to determine areas for improvement on the business operations and operations and maintenance of the facilities and management of the agri-support subproject interventions. The ARROW results serve as bases in providing further assistance geared towards sustainability of the project-generated benefits. The DAR Regional Offices have been trained and are now tasked to conduct ARROW once the completed subprojects are turned- over to the subject-organizations and every semester thereafter. It is also targeted that instrument be institutionalized eventually at the subject-organization-level for them to perform their own assessment or evaluation of the physical and institutional aspects of the subprojects to ensure sustainability.

7.3.2 National Inspectorate Team/Field Inspectorate Teams. The DAR FAPsO, cognizant of the need to establish a unified monitoring system to assess the completed physical infrastructure subprojects implemented under the different ODA projects of the Department, has created the National Inspectorate Team at the Central Office level and the Regional/Provincial Inspectorate Teams at the field levels. Aside from the monitoring and assessment of the physical status of completed subprojects, the teams are tasked to evaluate the compliance of LGUs with O&M

requirements, assess the capacity of POs and other O&M groups at the community level to ensure continuous maintenance and recommend measures on improving technical monitoring of the subprojects. The above mechanism ensure that activities related to sustainability monitoring of completed subprojects are incorporated in the respective annual workplans of the DAR field offices through the R/PCITs.

7.4 Project Management and Administration

7.4.1 Benchmarking. All baseline data developed and established for the 150 ARCs will be turned-over to the DAR-Support Services Office for their reference in ARC development monitoring and subsequent identification and formulation of responsive development plans and programs.

7.4.2 Project Implementation Manuals. Each subcomponent has an implementation manual which includes operation and maintenance which are available at the DAR Regional and Provincial Offices to serve as ready reference.

7.4.3 Inter-agency Collaboration. The established interagency collaboration under the Project will continue to function beyond Project completion. This will be pursued through the DAR's regular structure utilizing the CARP Implementing Teams and Provincial Agrarian Reform Coordinating Committee (PARCCOM). This will ensure coordinated actions of various stakeholders towards sustained operations of the subprojects.

Per Project Agreement, implementing agencies (NIA for irrigation, DPWH for FMR and Municipal LGUs for RWS) shall continue to monitor and provide technical assistance, including the provision of regular funding support necessary for facilities maintenance, in addition to the irrigation service fees (in the case of CIS/PIS) or water tariff (in the case of RWS) to be generated by the concerned subject organizations. Likewise, the sustainability of the turned-over subprojects are supported by the LGU through a resolution by the Local Development Councils (LDCs) urging them to give priority for funding in their annual investments programs.

8.0 LESSONS LEARNED AND INSIGHTS

In general, the implementation of the Project has gone smoothly albeit some budgetary constraints, operational and coordination problems, natural calamities, and other issues which confronted the Project. Nonetheless, the Project has achieved some level of efficiency which can be attributed, to a large extent, to the fact that much of the operating systems and procedures have already been established since ARISP I and the management and coordination mechanisms have been responsive enough to institute streamlining measures and improvements required to address bottlenecks and facilitate operations. In as much as Project operations were mainstreamed into the regular structure and systems of the DAR, DPWH and NIA, the systems and operating procedures of the Project were cascaded without much difficulty down to the field offices and front-liners of implementation. This was further facilitated by the high spirit of cooperation and teamwork promoted by the PMO among the different partner/implementing agencies and stakeholders.

But as in any other project undertaking, challenges, issues and constraints cropped up during implementation as the Project had to face and make adjustments, in consideration of field realities, changing situations and unforeseen circumstances.

By and large, those which had far-reaching and major impacts on the Project were mostly risk factors which were external to and beyond the control of project management. One of these is the severe fiscal and budgetary constraints in 2001 and 2002 when only about 25% of the annual budget was released. Budgetary constraints was identified as a risk factor during project planning but foreign-assisted projects have usually received high budget support until 2002. The very limited available funds actually prolonged pre-engineering activities and as a consequence, construction works were started later than schedule. Two, the severe typhoons and flashfloods which occurred in 2005 and 2006, brought damages to several irrigation and road subprojects which were then still under construction, hence prolonged the construction period to give time for restoration works. As a result, twelve (12) subprojects were still ongoing by the time the loan expired but these were completed after a few months. These two (2) factors had their major impact on increased costs per unit, reduction in physical targets given a fixed approved budget cover and time extension.

Aside from the external factors, some issues and challenges faced during implementation, which are internal to the Project, have been noted as an aid to the review, design, and implementation of future projects. These matters are discussed in the following sections. In summary, the operational issues and challenges are inherent in a multi-sectoral project which involves different implementing agencies and organizations not to mention its nationwide coverage. Issues revolved around the non-observance of certain guidelines, procedures, processes and technicalities that need either stricter implementation or enhancement, as well as a re-assessment and modification of certain policies and institutional and implementation arrangements on the part of the Project Management.

Among the more notable issues identified for the Infrastructure Development Component which affected some subprojects were the following: delays in implementation; project cost-overruns; delays in downloading of funds; incomplete pre-engineering works which resulted in variation/change orders and additional works; risky scheduling of construction works during rainy season which resulted in structural damages due to floods/typhoons; insufficient and/or inaccurate technical and economic data; insufficient equipment deployed by some contractors or implementing agency; and prolonged period of time for pre-construction activities including some bidding problems.

For the Institutional Development Component, the more prominent issues observed were delays in the delivery of training support to cooperatives by the NPI; difficulty in finding qualified LBPIs in some provinces that satisfy the guidelines/criteria set by the Project; inclusion of cooperatives which are not yet ready for the Project; cost over-runs on irrigation development activities; difficulties in recruiting some irrigators and reaching the 80% membership requirement before construction of irrigation facilities; delays in the turn-over and acceptance of irrigation system by

two (2) IAs in 2 subprojects; the unique set-up and operation of shallow tube well was not considered in the Implementation Manual for IA Development; absence of regular monitoring for ISF collection; low monthly tariff collection performance for completed Level II-RWS; technologies and approaches remained individualized in many ARCs and unable to significantly increase production and consolidate operation to commercial levels except in two (2) ARCs; declining trend in CBU for four (4) cooperatives.

The issues and challenges succinctly described above are better explained and illustrated in the following discussions of the different Project components. Actions taken by management, including component-specific recommendations and insights, where applicable and appropriate, are likewise discussed below.

8.1 Infrastructure Development Component

8.1.1 Irrigation and Drainage Facilities Subcomponent. Many of the issues and challenges encountered in implementing irrigation subprojects are related to pre-engineering design and estimates, construction practices, and typhoon and flood damages.

a. The importance of sufficient pre-engineering studies for irrigation subprojects cannot be overemphasized because they provide the basis for the design of structure. Several irrigation subprojects were found to be short of detailed investigation which had its impact on costs. For instance, the cost of excavation for diversion structures and canals increased tremendously in 57 subprojects due to the presence of rocks underneath the ground which, during the detailed design and POW preparation have been considered as common excavation. This cost increase went beyond the standard physical contingencies programmed for the Project and contributed in the cost increase per hectare of irrigation subprojects. To minimize this in future projects, a more detailed technical investigation should be undertaken, especially canal alignment, flood phenomenon and topography of the diversion site, before a subproject is approved for implementation. This is to ensure that costly flood mitigating measures and possible extensive damages during and after completion of the subproject are avoided.

b. Sub-surface investigations should be conducted in canals and major structures that would involve deep excavation in order to better estimate the type, scope, volume and cost of materials to be excavated.

c. A more detailed review of the POW should be made to include a review of the quantity calculations and Master List of Structures verified against the approved D/D Drawings. In some instances, some quantities and costs have not been included in the submitted POW in order to limit the overall project cost, and therefore, keep the unit cost within the standard cost parameters of NIA. However, many of these omitted quantities had to be covered during implementation, which entailed additional funding to meet the design requirements. These had either upscaled the total project cost, affected programming and, in some instances, downscaling in some items of work to complete the subproject within the approved cost, considering the limited funds.

d. Before the start of construction of major diversion structures located on large rivers, a review of construction schedule would be advisable to take the necessary mitigating measures in anticipation of floods which are likely to occur during critical stages of construction. Improvements in scheduling and construction methodology should be made and corresponding management measures should be taken to ensure their implementation during construction. Based on past experiences, major structures undertaken under Local Minor Contract (LMC) are more beneficial than those undertaken by FAW in terms of risk management and costs, especially in case of restoration of typhoon damages/flood damages. Under LMC, all costs can be charged under the Comprehensive All Risk Insurance (CARI) of the Contractor during construction stage unlike those undertaken by FAW wherein restoration works are financed by the Project.

e. Typhoons and other natural calamities are common risk factors during construction. Under the Project, typhoon damages on canals and canal structures have been severe in 16 subprojects due to insufficient protection works, particularly on earth and lined canals located along sidehills.

Slope protection in some canal embankments had to be introduced as they are located alongside waterways/ivers. On a larger scale, several on-going subprojects were affected by flooding at the time when work on the main channel was on-going and cofferdam was set up to block the major part of the waterway. Scouring of the river banks occurred as the flood flows cannot be accommodated within the remaining portion of the river channel. In order to avoid such occurrences, the formulation of and adherence to a well-planned construction scheme and schedule should be strictly imposed. Such construction implementation plan should include a scheme for the diversion and care of the river which would ensure that during the typhoon season, the whole, or at least a major portion, of the main river channel is open and would be able to accommodate the flood discharge that can be reasonably anticipated within the construction period.

f. While it is recognized that protection works are important in enhancing the stability of the structures, these, however, could only be provided on a limited scope because of the big investment costs required. Future projects should increase the allocation for protection works and restoration of typhoon damages to ensure completion of the subprojects.

g. A Pre-Construction Conference should be conducted prior to actual implementation. The resulting record of Pre-Construction Conference should be kept at the DAR-PPMO and should be regularly monitored and updated. In line with this, it is also recommended that the Earned Value Management System (EVMS) be implemented for irrigation subprojects. The system integrates scope, schedules and resources monitoring in measuring project performance and will enable the implementing agencies to address problems before they occur.

h. Some implementing units need improvement in construction methodology, approaches and scheduling methodology to minimize, if not prevent, major damages on diversion and canal structures during the rainy season. Future projects may pursue this through the review process, technical consultations, advisory services, formal training and closer construction monitoring.

i. Training for DAR and NIA Engineers involved in the planning, design and implementation of irrigation subprojects should be further enhanced and intensified to enhance the quality and appropriateness of designs.

j. Quality Assurance (QA) should always be conducted for irrigation subprojects and should form part of the standard operating procedure prior to project turnover and acceptance. In this regard, the appropriate mechanism for QA should be organized and the necessary guidelines should be prepared for such purpose.

8.1.2 Farm-to-Market Road Subcomponent.

a. Infrastructure subprojects were reviewed as to appropriateness, structural soundness, and overall feasibility based on actual site conditions, design standards and guidelines as well as standard cost parameters. However, insufficient site verification, technical studies and data required in detailed design (D/D) resulted in re-routing, change orders and additional works in about 10% of the road subprojects which translated into prolonged pre-engineering review and approval, delays in construction schedule and cost overruns. In order to hasten the review of documents submitted, technical discussions with the concerned field units of DPWH were conducted to clarify data inconsistencies and facilitate submission of needed data. For future projects. It is advisable to include in the standard operating procedure a preliminary walkthrough, survey and feasibility study to be conducted jointly by DAR-RPMO/PPMO, DPWH-RO/DEO and LGUs so that possible issues could be addressed and discussed with during the site validation prior to the preparation/finalization of detailed plans and documents.

b. Normally, road portions found in good condition during project planning were excluded from the scope of rehabilitation work under the Project. However, in some approved subprojects, the exempted portions along the road stretches deteriorated or damaged during the construction stage resulting in a segmented finished project. In response, the LGUs' involvement were sought to properly maintain the exempted portions to match the rehabilitated portions and allow

unhampered access along the entire stretch of the road. In the future, it is important to validate and assess thoroughly the technical and structural durability of existing pavement for possible inclusion in the project scope. Another option is to include in the agreement with the LGU for it to treat the exempted portion as its counterpart so the necessary cost of maintenance will be deducted from its required equity contribution.

c. During the implementation stage, some subprojects were affected by delays in downloading of funds and relatively long time spent for pre-construction activities, especially for subprojects undertaken by Administration. This was partly addressed through regular coordination meetings between and among implementing agencies. However, there is still room for improving the systems and processes of downloading of funds to the district offices. Moreover, there is a need to facilitate the bidding process so that timing of construction will not be compromised. This is to ensure that construction could be maximized during the dry season in order to minimize work suspensions and typhoon and/or flood damages.

d. It was also observed that implementation of nine (9) subprojects were disrupted by several requests for additional works or variation orders. As a mitigating measure, CPMO initiated the conduct of Pre-Construction Conference among the personnel to be assigned to the project, DAR-PPMO/RPMO, concerned LGUs/IAs, etc. to discuss discrepancies between the as-staked plan and approved D/D, construction strategy and schedule. This proved to be effective in ensuring smooth implementation in majority of the subprojects. As further improvement in future projects, however, the preparation/submission of as-staked plans should be required to minimize, if not avoid, technical problems during implementation and to make documentation easier and faster. Aside from the conduct of the pre-construction conference, systems and procedures should be improved to allow prompt processing of requests for additional works and change orders. More efforts should be exerted to ensure implementation and compliance to the policies of prior approval, accountabilities for deviations in designs and substandard quality, and better enforcement of Republic Act (RA) 9184 or the "The Government Procurement Reform Act" and its Implementing Rules and Regulations, with regard to variation orders and penalties.

e. In general, subprojects implemented by contract encountered lesser problems than subprojects implemented by force account. Aside from this, implementation by Contract proved to be more beneficial on the part of the Government inasmuch as project risks, such as damages due to calamities, delays, quality, among others, are covered by insurance, performance bond and warranties.

f. Timely turn-over of completed subprojects undertaken by Administration should also be monitored to avoid unnecessary time and cost overruns when these subprojects incurred typhoon or flood damages requiring time extensions and repairs/remedial works and mitigating measures.

g. The standard designs for barangay roads, i.e. provision of earth embankment materials for shoulder, were observed to have created unfavorable road condition as the said embankment material contaminate the carriageway base course and sub-base course materials and get muddy during rainy periods causing damage to the carriageway. The shoulder material should be modified in future projects. This should be discussed with the DPWH-Bureau of Design and Standards so as to effect enhancement of the standard design for barangay roads.

h. Cost sharing with LGUs should also be encouraged and strengthened. However, mechanisms for assuring timely fund releases should be firmed up, including implementation arrangement. There were cases that LGU counterpart funds or committed cost-sharing were not downloaded on time and/or implemented which resulted to downscaling of work scope just to complete the subproject. On the positive side, majority of LGUs who were involved and properly consulted during the planning stage delivered their committed counterpart. The lessons learned on this aspect, including those of other FAPs, should be used as inputs in the preparation of cost-sharing schemes for future projects.

i. The quality assurance conducted by the DPWH-Regional Quality Assurance Unit (QAU) to all completed subprojects, as a prerequisite for acceptance of turn-over, is an effective way of ensuring that subprojects were constructed within the approved standards and design specifications of DPWH.

8.1.3. Rural Water Supply. Pre-engineering activities for RWS is the responsibility of the concerned Municipal LGU as part of its equity to the Project. Many cases of delays were encountered in the finalization of Feasibility Studies, Sectoral Development Plans, D/Ds and POWs by the MLGU since majority of the staff were not yet technically equipped in the preparation of water supply pre-engineering studies using Project guidelines. To address this, the CPMO through the Consultants conducted training workshops to equip the MLGU engineers, Municipal Planning and Coordination Officers and DAR PPMO engineers with technical know-how on pre-engineering, construction, testing and O&M of RWS subprojects.

In future projects, more intensive technical assistance to the MLGU should be provided to properly equip them in pre-engineering, construction and O&M stages, as well as appropriate orientation regarding the Implementing Rules and Regulations of RA 9184.

Further, there is a need to enhance the minimum requirements/standards of Levels 1 and II systems to ensure effectiveness, safety and durability of structures. The CPMO/Consultant actually recommended some enhancement in the standards such as provision of shed for communal faucets, provision of bigger splash pads including drainage, provision of water meter to communal faucets, among others. These enhancements in the standard design of Levels I and II systems should be adopted to ensure effective O&M and durability of completed RWS subprojects.

8.1.2 Institutional Development Component

8.1.2.1 Cooperative Development Subcomponent. As a matter of approach, the Project provided training to cooperatives and beneficiaries based on training needs analysis for the purpose of addressing the weaknesses in technical, organizational, management and financial capabilities, among others. Specifically, the management of cooperative training was lodged with DAP as National Partner Institution (NPI) and conducted by the respective LBPIs. Implementation, however, started later than expected due to delayed preparation and submission of training proposals, centralized evaluation and approval procedures, volume of proposals against limited number of staff, and slow transfer of funds down to the implementing LBPI. As a management response, procedures were streamlined and proposal evaluation were decentralized by assigning evaluation officers by island group. Further, by end of contract, the administration of remaining training for cooperative development including the balance of budget were assumed by CPMO and subsequently delegated to the regional and provincial PMOs for implementation.

The selection of LBPI to provide community organizing and coop development services to subject organizations was a joint function of DAR Provincial PMOs and DAP. In some areas, there were difficulties in finding qualified LBPIs hence, procurement of services took more than six (6) months against the average of 3 months. To encourage wider participation, the management allowed a shift from provincial level contracting to regional level which enabled qualified LBPIs from other provinces within the region to apply and participate in the Project.

For sustainability purposes, it is advantageous to engage an LBPI with financial capacity to bridge finance or advance implementation and continue assistance even after expiration of contract under the project. However, this cannot be ascertained during the selection stage. For future projects, the following options may be explored: a) require LBPI to allocate "Goodwill fund" to ensure timely start of ID contract; and, b) ensure that LBPIs mandate and plans and programs are aligned with DAR's program on agrarian reform and rural development as well as the plans of the subject cooperative. Experiences from BFI, Fundacion Santiago and Hometown Corporation have shown that their services may extend beyond contract period with ARISP II.

While under ARISP II, the preference is for organizationally prepared cooperatives, there had been a few cases where cooperatives that were dormant, debt-ridden and candidate for delisting by the CDA were covered under the Project for the reason that (1) no other cooperatives were operating in the ARC; (2) It was the only cooperative which has greater number (50 members + 1) of ARBs at the time of selection; and (3) preference of PPMO for cooperatives which was organized and assisted by DAR and assessed regularly under the ALDA. Based on these cases, the coop selection criteria appeared to have limited the options in finding a more capable subject organization to absorb and sustain project initiatives. In this regard, it is recommended that the criteria be revisited and amended the guidelines/criteria.

The TOR for all LBPIs based on contract is generic covering the areas of organization development and enterprise development, although their action plans and targets are based on the gaps and weaknesses identified based on the COCI. Fifty seven percent (57%) of the LBPIs, however, focused mainly on activities related to the basics of organizing apparently and have limited experiences and expertise on cooperative business development. The CPMO initiated jointly with the NPI the regular joint assessments and action planning to provide direction and manage the activities of the LBPIs. However, some more improvements may be instituted further in future projects which may include (1) a review of existing selection tool for all candidate cooperatives which can also serve as terms of reference in the selection of LBPI. The operations and review tool (ARROW) may be considered as complementary tool; (2) The existing selection criteria and TOR for LBPI contracting should be reviewed and/or accordingly revised to include practitioners with proven technical competence and financial capacities like BFI, Hometown Corporation, QNAS and UPLB; (3) Hire partners according to specific areas of engagement and with actual experiences in microfinance, business development, etc.; (4) Responsibilities and accountabilities for cooperative development may be rationalized wherein DAR-PPMO will handle the basic organizational development matters concerning primary cooperative while LBPI will be in charge of agri-business/enterprise development.

Tapping an NPI had the advantages of delegating the responsibility for the management of the Cooperative Development subcomponent and in the process defining accountabilities and sharing the risks involved in implementation of the Institutional Development component. It has actually facilitated disbursements of funds and helped simplify the procurement approval process. However, as in many nationwide and multi-stakeholder projects, there are rooms for improvement in terms of streamlining systems, procedures and mechanisms to facilitate project operations and enable timely delivery of expected outputs. Considering the nationwide coverage of ARISP II, an established network of offices at the regional level would have been an advantage in terms of managing the contracts of LBPIs.

8.1.2.2 IA/IG Development Subcomponent. Under ARISP I, the start of IDC activities started with the deployment of the IDO prior to the approval of the DD/POW. Under ARISP II, the activities started from the approval of final D/D by CPMO until the 2 cropping seasons after subproject turnover. In most cases, cost over-runs on IDC activities were incurred due to the delayed start of the construction period. As an option for future projects, the additional cost of ID activities incurred as a result of delays due to construction management may be shouldered by the implementing agency utilizing their regular fund.

For the cooperative as a subject organization for O&M of irrigation facilities, it was rather difficult to attain 80% of membership of potential irrigators as members because of the inability of members to pay the required CBU. This resulted in longer pre-construction period for some irrigation subprojects. It would therefore seem that the IA would be a better subject organization because it can easily satisfy the membership requirement as all members are motivated by a common interest as users of irrigation water.

The existing Implementation Manual for IA development has not considered the unique set-up and sustainable operation of shallow tube well irrigation. This type of irrigation system usually involves clustering of irrigator groups of more or less five (5) hectares of irrigation service areas. The IA assumed a passive role in water delivery and equipment maintenance/repair/replacement as these were performed by group. In this regard, the Implementation Manual may be revised to improve the role of IA in the management of pump irrigation system and strengthen the monitoring of NIA on pump irrigation system.

Some institutional problems like right-of-way and cost/equity reconciliation contributed in the delays in the completion and acceptance of the irrigation system by the IA. Adequate safeguards should be instituted during the planning and design stages to enable the beneficiaries to thoroughly understand the scope, costs as well as the positive and negative impacts of the project on their property, canal, water allocation, productivity, as well as their responsibilities on equity, water management, operations and maintenance.

Regular monitoring of IA/IG O&M performance that includes ISF collection efficiency, amortization payment, cropping intensity and area generation, by NIA is very important to ensure the sustainability of the irrigation system. This should be instituted in future projects. NIA may prepare a monitoring tool for financial performance of the IAs including ISF collection in ARISP III.

8.1.2.3 WUA/WUG Development Subcomponent. The average collection efficiency of water users' fees for 23 completed RWS was 62% which is relatively low compared to targets set by them. The shortfall in collection performance may be attributed to the desire of household-beneficiaries to have a more rationalized water fee. Hence, to address the occurrence of said problem in the future, provision of water meter in the communal faucet is recommended to be provided under future projects.

The three (3) options for selection of the subject organizations for O&M of RWS developed in ARISP II were found to be responsive because 78 WUAs/WUGs, or 95% of the total subject-organizations, were equally distributed by the options. However, the best option among the three has yet to be established because performance evaluation has not yet been conducted.

8.1.2.4 Agricultural Support Development Sub-component. For this subcomponent, more farmer beneficiaries were trained on improved technology and demonstration farms/learning fields and some were able to improve farm productivity and income. Aside from rice farmers, the application and replication of the technology was observed notably in ARCs where farmers are diligent and have enough capital, capable and active cooperative, and ready market such as in Laguna and Cavite for high-value crops (watermelons, honeydew, and vegetables). In the other ARCs, however, the lack of capital, weak coop management, crop failure and uncertainty of market seemed to dampen the motivation of farmers to continue using and expanding the technology. Among rice farmers, improvements in yield as a result of the training had its benefits in terms of food sufficiency especially in remote ARCs. It is observed that profitability and availability of market for the crops and products trigger the farmers to produce more and better crops and should be consciously considered in designing future agri-support projects.

It is also realized that main purpose of the subcomponent is to enrich farmers' knowledge and that more farmers apply the technology. Other factors influence the adoption, replication and sustainability of application of technology, hence separate and more creative strategies are needed to achieve such purposes.

As a first step, providing the enabling technology and initial inputs to the farmers is important in order to trigger better production but this may not always lead to more income because of price and market factors.

The agri-support projects implemented under the project somehow served as vehicle for farmers cooperative to manage a revolving project which provided production inputs to their members so that the coop can gather enough volume to start an agri-enterprise. Based on reports, the replication of appropriate technologies introduced in the demonstration farms/learning fields through the revolving fund scheme showed encouraging results, e.g. increase in yield, CBU, savings. However, declining trend was observed during the last 3 cropping seasons which may threaten long-term sustainability. Hence, It would be necessary to develop alternative schemes to improve viability of revolving fund and roll-over scheme such as cost and profit-sharing, programmed production and marketing customized to buyers, collective marketing through the AIM-C, etc.

In many cases, the desire to harness commercial volume of crops had not been possible in many areas except in ARCs where the cooperatives are well-organized and farmers are more enterprising. Technology application generally remained to be individualized and local mechanisms were not yet ready to consolidate production/operation to commercial levels. Further, primary cooperatives as conduit for agri-support roll-over schemes preferred to undertake multiple small-scale livelihood and farming activities which diluted their focus and overstretched their absorptive capacity. Although the variety of small projects provided some source of livelihood for the participating households, some of these had been short-lived due to lack of capital, low profitability, lack of market, and low motivation.

In short, the design and approach of agri-support projects for ARISP II has been responsive in terms of technology training and to some extent, building the management capacity of primary cooperatives. However, improvements should be made in terms of enhancing technical and management capacities for enterprise development and in consolidating production to form profitable enterprises. For ARCs desiring to venture into commercial production or processing, it may be necessary to tap second level organizations such as federations to perform technology training, marketing services, product enhancement, product standards and quality assurance in order to satisfy the demands and specifications of the market and to attain economies of scale. The design of future agri-support projects may be linked with common service facilities such as the AIM-C as a means to consolidate products and produce from various ARCs.

In summary, the following lessons learned from project implementation were noted:

a. Infrastructure Development. As indicated in the Results Monitoring Evaluation Study for ARISP II, an appropriate mix of infrastructure sub-components is critical to attain individual subcomponents' targets such that (a) better productivity in crops diversification can be achieved in areas where there is a combination of road and irrigation subprojects; b) road subprojects opened the cooperatives to more business opportunities hence have integrative effects to expand membership and increase of capital build-up; c) combination of road and post-harvest facility subprojects results in more markets and better prices or farmer's produce.

The mode of implementation of "By Contract" proved to be more beneficial to the Government than the subprojects undertaken by administration in terms of risk management and costs, especially in cases of restoration of typhoon damages, all costs can be charged to Comprehensive All Risk Insurance during construction period. There is also provision for correction of structural defects during warranty period. There is, therefore, a need to pursue implementation by contract for infrastructure subprojects especially those with major structures such as bridges and dams/diversion structures.

Timely turn-over of completed subprojects undertaken by Administration should also be monitored to avoid unnecessary time and cost overruns when these projects incurred typhoon and/or flood damages requiring time extensions and repairs/remedial works and mitigating measures.

The standard design for barangay roads, i.e. provision of earth embankment materials for shoulder, was observed to have created unfavorable road condition as the said embankment material contaminate the carriageway base course and/or sub-base course materials and get muddy during rainy period causing damage to the carriageway. The possibility of improving the design for shoulder material should be explored and discussed with the DPWH-Bureau of Design and Standards.

Cost sharing with the LGUs should also be encouraged and strengthened as it had fostered ownership and commitment of the LGUs to increase investments in the agrarian sector. Majority of the LGUs who were involved and properly consulted during the planning stage delivered their committed counterpart but there were cases where the LGU counterpart funds or committed cost sharing were not downloaded on time and or implemented which resulted in downscaling of work scope just to complete the project. Among the reasons is that the LGU's budget is either not yet

available or insufficient especially for the low-income municipalities. In this regard, it is necessary that more practical and flexible schemes of cost-sharing be developed to minimize delays in project implementation. Further, mechanisms for ensuring timely fund releases should be firmed up and more effective implementation arrangements should be drawn up to strengthen collaboration. The lessons learned on this aspect, including those of other FAPs should be used as inputs in the preparation of cost-sharing scheme for future projects

b. Institutional Development. The spirit of cooperativism in the ARCs was rekindled and strengthened thru the participatory approach to community organizing in terms of institutional development.

For the cooperative as a subject organization for O&M of irrigation facilities, it was rather difficult to attain 80% of membership of potential irrigators as members because of the inability of members to pay the required CBU. This resulted in longer pre-construction period for some irrigation subprojects. It would therefore seem that the IA would be a better subject organization because it can easily satisfy the membership requirement as all members are motivated by a common interest as users of irrigation water.

In ARISP II, the selection and contracting of Local-Based Partner Institution by the National Partner Institution for cooperative development initially took six (6) months thus delayed the start of actual implementation. It would be advisable to shift from centralized to decentralized (regionalized) system of contracting and management of technical support for subject organizations to bring forth timely and customized delivery of capability and capacity-building assistance.

Although the technical and financial resource-sharing between and among the LGUs, POs and partner-institutions contributed immensely to the successful adoption and dissemination of appropriate technologies, majority of the LGUs and POs experienced difficulties in putting up the required equity/counterpart. Limitations in equity/counterpart funding, therefore, affected the start and timely completion of ARISP subcomponents/activities. This is more evident in cases where large portions of LGU budget and PO funds were used as equity/counterpart for irrigation, RWS and FMR.

Lastly, it was observed that O&M of RWS required upfront funds for initial operating costs of deep wells and for major repairs/replacement of equipment and facilities which are usually beyond the financial capacities of many water users associations or which eventually drain the financial resources of some associations. Thus, options for joint O&M by LGU and PO should be explored or LGUs may be encouraged to assume in full the responsibility for O&M of water systems to ensure adequate and regular support for potable water supply systems.

c. Project Management. On the part of the overall ARISP II Project Management, the following realizations are worthy of citation, to wit:

Consistent with the CARP implementation set-up, ARISP tapped the national line agencies as the key implementers and utilized their existing multi-level organizational structures for implementation of different components. At the on-set, the Project is mainstreamed in these line agencies which contributed to the smooth implementation of the Project. ARISP has proven that with a clear and commonly understood/agreed upon Project Management Mechanism, interagency collaboration can be effectively carried out.

Common guidelines and plans that are understood, accepted and shared by implementers and beneficiaries played great importance in the implementation of the subprojects, which spelled out the success of cooperation and team work among the implementers and complementation of other stakeholders. These proved to be one of the widely-accepted and well-appreciated Project Management tools which helped attain the Project objectives.

Continuing education of partner agencies through seminar-orientations, workshops, coordination meetings and skills enhancement training have deepened their understanding and commitment on agrarian reform and in performing their assigned roles and functions under ARISP.

The Special Account Procedure as a disbursement method under ARISP has assured sufficient and timely release of cash support to NIA, DPWH and LGUs. This has truly facilitated the timely implementation and completion of infrastructure subprojects.

However, in relation to funding, it was noted that there is a need to allocate a portion of the budget to answer the costs of restoration of typhoon damages of infrastructure subprojects.

The ARC development strategy alone cannot address the issues of limited resources, services and business potentials of ARBs and cooperatives, thus there is a need for promotion of ARC connectivity through AIM-C with operation and management by the federation of cooperatives.

Lastly, although the sustainability mechanisms for completed infrastructure subprojects as well as for the different institutional development interventions have already been set in place, these still need to further enhance and strengthen local mechanisms to ensure that the gains of ARISP I and ARISP II are not negated.

09. CONCLUSIONS AND RECOMMENDATIONS

After seven years of implementation, ARISP II substantially completed the revised physical targets of the project and generated initial positive results and impact on the ARCs which received assistance. The actual accomplishments represent what the project can reasonably attain under the circumstances where factors of changing site conditions, price escalation, foreign exchange movement, natural calamities and budgetary constraints had significant bearing upon project implementation.

150 ARCs were provided assistance, as originally targeted, with a package of services drawn-up and implemented thru a consultative and participative process. The combination of basic infrastructure, institutional development and agricultural development support pursued in an integrated manner had shown positive results in majority of the ARCs based on monitoring reports. The Results and Monitoring Study of Urbis Philippines, Inc presented that at mid-term, the project has registered positive progress in achieving the key performance indicators. The said study presented that in 2005, average household income increased by 20%, average rice production increased by 36%, transportation cost was reduced by 34%, hauling cost of farm produce decreased by 50%, additional 18,585 households gained access to potable water supply, 12,252 farmers were trained on different agricultural technology, and 403 community organizations (cooperatives, irrigators associations, and water users associations) were organized and/or strengthened. Other important benefits noted were: 54.3% of ARB household are self-sufficient in rice; many household have acquired assets; and majority of the households in the ARCs covered perceive themselves to be 'not poor'.

Although the mid-term survey only captured the initial results of the Project, the trend indicates a high likelihood of achieving the key performance indicators and expected impact of the Project. Practically, more time is needed to allow the project interventions to set-in before the prospect of full benefits could manifest. Hence, a follow-on study is definitely needed after project closing to track the progress of key performance indicators, assess the sustainability of interventions, and substantiate the project impacts.

By and large, there are evidences recorded that the quality of life of ARISP II ARB households have improved since 2001, with spillover effects being experienced by non-ARB households. ARISP II interventions have been found to be very relevant to the needs and priorities of the ARCs as identified by them. Household incomes increased and households perceived that their socio-economic conditions as better than before brought about by enhanced productivity, better health and sanitation, and better prices for farm produce.

Notwithstanding the achievements of the project, the following recommendations are being presented hopefully to provide guidance for post-project activities to sustain the emerging positive results as well as to share insights and practical options in designing and implementing future projects especially with the forthcoming implementation of ARISP III:

1. Continuation of the integrated, area-based approach to ARC development while finding the optimal mix of component.

Under ARISP II, synergy between and among project components was noted to yield integrative effects. Based on the RME study, the linkages of road with irrigation and marketing-related interventions produced integrative effects such as improved harvest per unit area for irrigated rice and in diversification to cash crops, more business opportunities for cooperatives, and enhanced access to market. While these combination of projects yield positive effects, it is not certain at this point whether the emerging results are sufficient to bring the ARB households above the poverty threshold. Admittedly, the mix of intervention that would yield optimal results is still uncertain to date and further studies should be pursued along this line to guide the design of future projects.

2. Implementation of a supervised technology package for agricultural development to boost production and productivity

Support to agricultural development thru the establishment of techno-demo farms and pilot projects helped in upgrading the know-how of farmer cooperators and showed initial cases of success. However, it was observed that in some areas, application of technology by the farmers was rather lax which resulted in sub-optimal yields and consequent discouragement among some farmer-cooperators. Successful cases showed that, under normal circumstances, it is possible to attain high production targets if and when the prescribed technology module is applied properly and religiously. In future projects, therefore, it is recommended that a supervised technology package be implemented so that competent agricultural extension workers and technicians can guide and monitor the application of proper technology and agricultural management practices. The supervised technology package when implemented in synergy with irrigation and other components could boost the positive effects of the project. Along this line, the Volunteer Program for Agricultural Development and Farmer Scientist Training Program implemented under ARISP I are worth replicating with some practical improvements.

3. Establishment of connections between and among ARCs to expand the benefits to more farmers thru information sharing, group investments and collective marketing

The advantages of group production and marketing have been exhibited in the pilot Agrarian Information and Marketing Center (AIM-C) in Butuan City which is being managed by the FEDARCCO, a federation of cooperatives in Agusan del Norte. The said pilot project although still in the learning phase, has served as catalyst in building the capability of the federation to operate and manage businesses that allow consolidation of products from the different ARCs, collective marketing, information-sharing on current supply, demand and prices of agricultural products. It is suggested that this approach be replicated in other provinces, where and when it is found to be feasible to expand the results focusing on activities with greater economic benefits and wider outreach.

4. Implementation of market-driven production and agribusiness projects covering wider production areas and more farmer cooperators thru technology promotion, market linkaging, and agri-financing

Improvements in yields and farmers capabilities were realized under ARISP II. These helped many households become self-sufficient especially in rice and enhanced food security among families especially in areas covered by irrigation projects. However, there is still much potential to optimize production and introduce value-adding activities to enable farmers to reap better incomes by graduating from subsistence production to commercial level. In this regard, promotion of productivity enhancement, livelihood, enterprises and building the entrepreneurial skills of farmers should be continued. Interventions should also address the major hindering factors in enterprise development such as inadequate technical and financial capacities, limited access to rural finance, fragmented market and low level of private sector participation in agri-based enterprises.

5. Special Account procedure

The Special Account Procedure has fueled the implementation of projects and activities, ensuring the availability of cash support and timely release of funds especially for construction activities. However, there is a need to address the concern about the impact of foreign exchange fluctuations due to appreciation of the Yen against the Peso. Some measures to alleviate the budget impact may be taken such as maintaining the Special Account in Yen, reducing the amount of initial deposit, and/or maintaining a single exchange rate for every disbursement made to lessen the impact of yen appreciation against the peso.

6. Mainstreaming project management with technical assistance thru consulting services

ARISP II has become a trailblazer in terms of mainstreaming project planning and implementation into the regular structure and processes of DAR, implementing agencies and LGUs. Particularly for DAR, the key officials and staff of DAR at the central, regional, provincial and municipal levels were actually involved in decision-making, spearheaded coordination activities, supervised and monitored implementation of projects by the partner agencies and organizations, and facilitated turn-over and acceptance of projects. This project management set-up has placed DAR on top of the Project and has enhanced the sense of ownership of the Project among DAR offices.

In addition, the engagement of engineering and management Consultants proved to be advantageous for the project in terms of ensuring quality and cost-effectiveness especially of infrastructure subprojects. The technical assistance also helped a lot in improving the planning and technical capabilities of staff of LGUs, DAR, NIA and DPWH staff thru the dissemination of engineering guidelines, learning-by-doing with experts coaching, and formal technical training.

7. Pre-engineering and construction management

Sufficient and more detailed technical investigation should be undertaken for infrastructure projects to consider the nature of soil subsurface, flooding phenomenon, canal alignment and topography to avoid costly additional works and mitigating measures. More detailed review of programs-of-work should be done to check quantity calculations and avoid omission of critical quantities which, in the end, would entail substantial additional costs and disrupt funds programming.

Further, undertaking construction thru local minor contract was found to be more advantageous than thru force account works especially in terms of risk management and costs because of contract provisions for Comprehensive All Risk Insurance (CARI) during construction stage and one-year guarantee after construction. With proper and effective contracts management, projects are more likely to be completed within the approved design, cost and schedule.

Finally, quality assurance must always be conducted for all infrastructure projects prior to turn-over and acceptance. The system being used for the farm-to-market roads may be adapted to irrigation, post-harvest and potable water supply systems to ensure that completed projects are complying to existing standards.

8. LGU involvement and Cost-sharing

Many LGUs have proven their capacity to undertake pre-engineering studies and capability to implement projects particularly potable water supply in addition to providing the necessary counterpart funding for infrastructure subprojects. The participation of LGUs is expected to expand to other infrastructure projects especially in the light of the national policy of 50:50 NG-LGU cost-sharing whereby LGUs have to provide at least 50% equity out of the total project cost of devolved infrastructure projects.

Cost-sharing should be continued to enhance ownership of the projects among farmer beneficiaries, ARC organizations and local government units. As observed, the ARCs can pool and consolidate resources from the communities and local leaders to provide labor, materials, and cash counterparts to complete the implementation of infrastructure projects as well as provide complementary projects to boost the benefits of ARISP II interventions.

More liberal and innovative ways to implement this cost-sharing scheme have proven to be feasible under ARISP II, such as cost-sharing by scope of work or implementing complementary projects. This may be explored for replication in future projects.

9. Sustainability planning and monitoring mechanisms

The concern for long-term operation efficiency of subprojects provided under ARISP II remains to be a big challenge. As a first step, sustainability plans were prepared by the respective ARC organizations jointly with DAR and local government units for the continuation of project activities after turn-over. Further, sustainability monitoring tools called ARROW were introduced to the communities, DAR and LGUs as a way to regularly assess the operational status and physical conditions of potable water supply facilities. However, more stable and practical local mechanisms should be explored to ensure long-term sustainability of projects and activities and for reasons of viability, it is preferred that these are anchored on local structures and processes such as local government units, development councils, or existing indigenous mechanisms.

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LIST OF ACRONYMS

ACBO	Agrarian Cooperative Business Officer
AIM-C	Agrarian Information and Marketing Center
AIT	Area Implementing Team
ALAS	Agrarian Land Amortization Service
ALDA	ARC Level of Development Assessment
APM	Assistant Project Manager
ARB	Agrarian Reform Beneficiaries
ARC	Agrarian Reform Community
ARCDP	ARC Development Plan
ARF	Agrarian Reform Fund
ARISP I/II	Agrarian Reform Infrastructure Support Project - Phase I/II
ARROW	Appraisal through Rapid Reconnaissance of Operation Work
ASA	Association for Social Advancement
ASP	Agriculture Support Plan
BARBD	Bureau of Agrarian Reform Beneficiaries Development
BDCD	Beneficiaries Development Coordination Division
BFI	Baba Foundation Inc.
BLDC	Basic Leadership Development Course
BLGU	Barangay Local Government Unit
BOD	Board of Directors
BPRE	Bureau of Post Harvest, Research and Extension
BSP	Bangko Sentral ng Pilipinas
BWSA	Barangay Water Sanitation Association
b2b	Business to Business
CabCom	Cabinet Committee
CAR	Cordillera Administrative Region
CARI	Comprehensive All-Risk Insurance
CARL	Comprehensive Agrarian Reform Law
CARP	Comprehensive Agrarian Reform Program
CBU	Capital Build-Up
CDA	Cooperative Development Authority
CDAP	Cooperative Development Action Plan
CDW	Cooperative Development Worker
CHB	Concrete Hollow Blocks
CI	Cropping Intensity
CIP	Communal Irrigation Project
CIS	Communal Irrigation System
CLBU	Central Labor Base Unit (DPWH)
CO	Central Office
COA	Commission on Audit
COCI	Cooperative Organizational Capacity Index
COMAT	Core Management Team
CPMO	Central Project Management Office
CRW	Cost Reconciliation Workshop
CUP	Cooperative Union of the Philippines
DA	Department of Agriculture
DAP	Development Academy of the Philippines
DAR	Department of Agrarian Reform

DBM	Department of Budget and Management
D/D (DD)	Detailed Design
DEO	District Engineering Office
DF	Development Facilitator
DFWC	Dizon Farm Workers Cooperative
DOST	Department of Science and Technology
D/P (DP)	Development Plan
DPWH	Department of Public Works and Highways
DTI	Department of Trade and Industry
DW	Development Worker
EMPC	Epiphany Multi-Purpose Cooperative
EVMS	Earned Value Management System
FBs	Farmer-Beneficiaries
FAPs/O	Foreign-Assisted Projects/Office
FAW	Force Account Works
FEDARCCO	Federation of Agrarian Reform Communities Cooperatives
FFS	Farmers Field School
FMR	Farm-to-Market Road
FMS	Financial Management Seminar
F/S (FS)/FSR	Feasibility Study/Report
GO	Government Organization
GOJ	Government of Japan
GOP	Government of the Philippines
HDPE	High-Density Polyethylene Pipes
HH	Households
IA/IG	Irrigators' Association/Group
IARDS	Institute of Agrarian Rurban Development Studies
IC	Irrigation Component
ICC	Investment Coordinating Council
ID/IDC	Institutional Development/Component
IDO	Institutional Development Officer
ISF	Irrigation Service Fee
IRR	Implementing Rules and Regulations
JBIC	Japan Bank for International Cooperation
KRA	Key Result Area
L/A	Loan Agreement
LAA	Letter of Allotment Advice
LAD	Land Acquisition and Distribution
LAMPCO	Los Arcos Multi-Purpose Cooperative
LB/ES	Labor-Based Equipment-Supported
LBP	The Land Bank of the Philippines
LBPI	Local-Based Partner Institution
LCDP	Local Cadre Development Plan
LDC	Local Development Councils
LDW	Local Development Worker

LGU	Local Government Unit
LMC	Local Minor Contract
LTI	Land Tenure Improvement
M&E	Monitoring and Evaluation
MASS-SPECC	Mindanao Alliance for Self-help Societies - Southern Philippine Educational Cooperative Center
MARO	Municipal Agrarian Reform Officer/Office
MF/MFI	Micro-Finance/Institution
MIGS	Members in Good Standing
MLGU	Municipal Local Government Unit
MOA	Memorandum of Agreement
MOET	Minus One Element Technique
MPC	Multi-Purpose Cooperative
MTPDP	Medium-Term Philippine Development Plan
MWF	Members Welfare Fund
NCA	Notice of Cash Allocation
NCAA	Non Cash Availment Authority
NCPC	National Crop Protection Center
NEDA	National Economic and Development Authority
NGO	Non-Government Organization
NIA	National Irrigation Administration
NPI	National Partner Institution
NLSF	National Livelihood Support Fund
NWRB	National Water Resources Board
O&M (O/M)	Operation and Maintenance
ODA	Official Development Assistance
OECD	Overseas Economic Cooperation Fund
OMA	Organization Maturity Assessment
OVI	Objectively Verifiable Indicator
PAP	Participatory Area Planning
PARCCOM	Provincial Agrarian Reform Coordinating Committee
PBD	Program Beneficiaries Development
PBME	Project Benefit Monitoring and Evaluation
PCC	Project Coordinating Council
PCCP	Portland Cement Concrete Pavement
PCFC	Philippine Credit Finance Corporation
PCR	Project Completion Report
PDMS	Project Development Management Staff
PEF	Peace Equity Fund
PHF	Post-Harvest Facility
PIO	Provincial Irrigation Office
PM	Project Manager
PMO	Project Management Office
PO	People's Organization
POW	Program of Works
PPMO	Provincial Project Management Office
PSP	Policy, System and Procedure
PUP	Polytechnic University of the Philippines

QA	Quality Assurance
QAU	Quality Assurance Unit
QFARC	Quezon Federation of Agrarian Reform Cooperatives
QNAS	Quezon National Agricultural School
QPMR	Quarterly Performance Monitoring Report
QuedanCor	Quedan and Rural Credit Guarantee Corporation
RA	Republic Act
RCBC	Reinforce Concrete Box Culvert
RCPC	Reinforce Concrete Pipe Culvert
RDP	Road Development Plan
RME	Results Monitoring and Evaluation
RO	Regional Office
ROE	Return on Equity
ROI	Return on Investment
RPMO	Regional Project Management Office
RWS	Rural Water Supply
RWSA	Rural Water Sanitation Association
SAP	Special Account Procedure
SAPREM	Sustainable Agriculture Participatory Research and Extension Model
SARO	Special Allotment Release Order
SDP	Sectoral Development Plan
SEC	Security Exchange Commission
SMW	System Management Workshop
SNPV	Spodoptera Nuclear Polyhedrosis Virus
SO	Subject-Organization
SOE	Statement of Expenditure
SPA	Sub-Project Agreement
SSD	Support Services Division
SSO	Support Services Office
STK	Soil Test Kits
SUCs	State Universities and Colleges
TA	Technical Assistance
TEPs	Technical Enhancement Programs
TNA	Training Need Analysis
TOD	Turn-Over Documents
TOR	Terms of Reference
TP	Transfer Procedure
TPC	Total Project Cost
TWG	Technical Working Group
UCPB	United Coconut Planters Bank
UP	University of the Philippines
UPLB	University of the Philippines at Los Banos
VFS	Value Formation Seminar
VMGO	Vision, Mission, Goal and Objective
VPAD	Volunteerism Project Agricultural Development
WUA/WUG	Water Users' Association/Group

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Leodeagria Laureta

REGION II

Regional PMO

Regional Project Manager (current)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer

Araceli Follante
Paramon Furigay
Casiano Eclar Jr.
Charlito Tabilas

Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer

Leo Pagunuran
Isidro Ribunal
Peter Barasi
Estrelita Go
Teresita Terrayo
Teresita Accad

Provincial PMO-Cagayan

Project Manager (current)
Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer
Area Project Manager, Lasam
Development Facilitator, PENATUCA
Area Project Manager, Gattaran
Development Facilitator, LASVINAG
Area Project Manager, Sto. Niño
Development Facilitator, Cacabsat

Virgilio Acasili
Alfredo Lorenzo Jr.
Francisco dela Cruz
Blessie Taguibao
Aida Corsino
Domingo Garelo Jr.
Francisco Vallejo Jr.
Villamor Lara
Edmund Maguddayao
Josephine Laddaran
Leonita Abel
Gladys Auyang
Marvella Fernandez
Felipe Casticimo
Melvida Camayang
Melvida Castro
Arthur Urata
Araceli Tuliao

Provincial PMO-Quirino

Project Manager (current)
Asst. Project Manager (current)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Madella
Development Facilitator, Pinappagan

Eduardo Bareng
Roberto Collado
Mary Jane Guillermo
Reynaldo Lawayan
Nelia Salvador
Carolyn Martinez
Mary Ann Rhonalie Cagatao
Elizabeth Cuenca
Gina Herrera
Roberto Collado
Evangeline Ruiz

Provincial PMO- Nueva Vizcaya

Project Manager (current)
Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Specialist
M & E Specialist
Accountant (current)
Accountant (previous)
Cashier
Budget Officer
Area Project Manager, Bambang
Development Facilitator, Sama-sama

Joselito Garcia
Roberto Argonia
Annie Rose Llanera
Alexander Aggarsid
Rogelio Cacayan
Edwin Alegria
Marilyn Obena
Remedios Garingan
Ryan Meneses
Estelita Soco
Lily Turingan
Marlyn Surco
Remelyn Cataguiz

Provincial PMO-Isabela

Project Manager
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Naguilian
Development Facilitator, Cabaruan
Area Project Manager, Cordon
Development Facilitator, Capirpiriwan
Area Project Manager, Tumauni
Development Facilitator, Lapogan
Area Project Manager, Quezon
Development Facilitator, Minagbag-Abut

Ronald dela Rosa
Lucille Busog
Tomas Hernandez
David Villanueva Jr.
Samuel Pintucan
Alma Bueno
Constantino Gammad
Cristeto Acoba Jr.
Carmencita Alonzo
Ofelia Palomares
Leila Bayaua
Joey Rolando Umbias
Monalisa Mangantulao
Rogelio Rames
Visitacion Palis
Primitivo Solomon
Teresa Malana
Clarita Decano
Virgilio Cardenas

REGION III**Regional PMO**

Regional Project Manager (current)
Regional Project Manager (previous)
Regional Project Manager (previous)
Asst. Project Manager (current)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer

Teofilo Inocencio
Narciso Nieto
Renato Herrera
Eden Ponio
Ramon Manalastas
Corazon Lingat
Eloy Palomo
Victor Batu
Ma. Iryn Magcalas
Rosalina Singian
Nardy Espiritu

Provincial PMO-Bulacan

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , San Rafael
Area Project Manager , San Rafael
Development Facilitator, Moronguillo

Orlando Tumacay
Antonio Gita
Teofila Carpio
Artemio Tomacruz Jr.
Mercedita Anarcon
Celina Cruz
Imelda Juan
Marita Monteagudo
Nora Buencamino
Francisco Tobias
Ruben Santos
Hospicia Equia
Jesusa Leones

Provincial PMO-Pampanga

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager
Engineer

Arnel Dizon
Rodolfo Pangilinan
Donna Vitug
Wilmer Evangelista

Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M&E Specialist
Accountant (current)
Accountant (previous)
Budget Officer
Cashier
Area Project Manager , Mexico
Development Facilitator, Anao
Area Project Manager , Candaba
Area Project Manager , Candaba
Development Facilitator, Paligue

Edwin Pangan
Estelita Macapagal
Annelie Magtoto
Juanito Ramos
Aileen Manolo
Elisa Sicat
Carolina Tiamson
Antoniete Apostol
Abelardo Bondoc
Rolanco Baluyot
Sabiniano Lapuz
Salvador Totaan
Ramon de Guzman

Provincial PMO-Tarlac

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
M&E Specialist
Accountant (current)
Accountant (previous)
Budget Officer
Cashier
Area Project Manager, Concepcion (current)
Area Project Manager, Concepcion (previous)
Development Facilitator, Tinang
Area Project Manager, Bamban & Capaz (current)
Area Project Manager, Bamban & Capaz (previous)
Development Facilitator, PSP

Alfredo Reyes
Edson Arceo
Editha Petero
Emmanuel Aguinaldo
Roberto dela Cruz
Jorge Espinosa
Erlinda Noveda
Virginia Ocampo
Esteban Caoleng
Nenita Palomo
Josephine Dottallo
Teresita Baltazar
Cesar Reyes
Erlinda Pineda
Elizabeth Magcalas
Cristobal Gamido
Nelson Facun
Reynaldo Mendiola
Maximo Daniel
Ma. Luisa dela Cruz

Provincial PMO-Zambales

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Palauig
Development Facilitator, Bulawen -Salaza
Area Project Manager , San Felipe
Development Facilitator, Maloma

Eric San Luis
Domingo Marin Jr.
Loida Arcega
Rosa Reyes
Ruben Ligsay
Richard Rivera
Rosemarie Ledina
Marian Vinluan
Michael Orjalo
Ferdinand Abran
John Castrence
Nida Lovino
Xavier Nano

Provincial PMO-South Nueva Ecija

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager

Ileona Pangilinan
Alfonso Rayo
Romeo Cordero

Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant (current)
Accountant (previous)
Budget Officer
Cashier (current)
Cashier (previous)
Area Project Manager, Gabaldon (current)
Area Project Manager, Gabaldon (previous)
Development Facilitator, Gabaldon (current)
Development Facilitator, Gabaldon (previous)
Area Project Manager, Laur
Development Facilitator, Laur
Area Project Manager, Palayan City
Development Facilitator, Palayan City

Provincial PMO-Bataan

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Dinalupihan (current)
Area Project Manager, Dinalupihan (previous)
Development Facilitator, Saguing Maligaya
Area Project Manager, Balanga City
Development Facilitator, Balanga BSTC

Provincial PMO-Nueva Ecija North

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager
Engineer (current)
Engineer (previous)
Engineer (previous)
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Institutional Development Coordinator (previous)
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
Agri. Development Coordinator (previous)
M&E Specialist (current)
M&E Specialist (previous)
Accountant
Budget Officer
Cashier (current)
Cashier (previous)
Area Project Manager , Llanera

Dina Gonzales
Rowena Pascual
Cynthia dela Cruz
Melita Mamaclay
Manolo Romero
Genoveva Talplacido
Mario Mitra
Chat Pancho
Reynaldo Erive
Gil Belza
Borromeo Pascual
Roel Ilagan
Eduviges Ilagan
Pacifico Galdores
Benito Dayao
Lingkod Roque
Elvira de Leon

Ramoncito Estanislao
Clarence de Guzman
William Arceo
Neil Francis Pedralvez
Editha Navarro
Emmanuel Miguel
Edilberto Andraneda
Gloria Villa
Rosario Nayo
Rolando Tiongson
Carlito Manalili
Felix Salvador
Ana Alicia Flores
Guillerma Desepeda
Fe de Torres

Alfonso Rayo
Sebastian Reyes Jr.
Jocelyn Ramones
Ryan Bulanlagui
Al Ryan Rayo
Filipina Ramos
Marcelina Escobar
Erlinda Manuzon
Mary Pauline Mendoza
Lorna Cayetano
Dimas Paddayuman
Clarita Millo
Filipina Ramos
Carmelita Pelaez
Luciana Puno
Simeona Tejada
Evelyn Ramos
Florencio Medrano
Rogelio Palomo

Development Facilitator, Llanera

Amelia dela Cruz

Provincial PMO-Aurora

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer
Area Project Manager, Dinalungan (current)
Area Project Manager, Dinalungan (previous)
Development Facilitator, Simbahan/Mapalad (current)
Development Facilitator, Simbahan/Mapalad (previous)
Area Project Manager, Dipaculao (current)
Area Project Manager, Dipaculao (previous)
Development Facilitator, North Dipaculao

Felipe Simon
Darlene Galicia
Juan Salamanca Jr.
Annalyn Dukha
Rogelio Marzan
Vivencia Quesada
John Velasco
Elizabeth Espinosa
Fe Ritual
Eduardo Soliven
Emil Maure
Julieta Picart
Jose Jaime Vargas
Emil Maure
Romulo Velasco
Conrado Fajardo

REGION IV-A

Regional PMO

Regional Project Manager (current)
Regional Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer, Mainland Provinces
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant (current)
Accountant (previous)
Accountant (previous)
Cashier
Budget Officer

Dominador Andres
Homer Tobias
Dalangin Parel
Gloria Araullo
Marvin Labao
Sharlene Perino
Judy Zabala
Ma. Villa Panganiban
Analiza T. Junio
Ma. Norivel Catihanan
Maria Carr Ligutom
Imelda Juane
Violeta Guadarama

Provincial PMO-Quezon I

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer
Area Project Manager, Gen. Nakar
Development Facilitator, Umiray
Area Project Manager, Mauban
Development Facilitator, Santol-Polo-Bato-Concepcion

Plaridel Vera Cruz
Lucia Campomanes
Orlando Panganiban
Leonila Conrado
Flordeliza Jader
Luisa Merle
Demosthenes Medenilla
Marcelina Lopez
Dario Opistan
Romeo Viado
Corazon Mercado
Romeo San Agustin
Elmer Bago

Provincial PMO-Batangas

Project Manager (current)
Project Manager (previous)
Project Manager (previous)

Cynthia Lapid
Antonio Evangelista
Mirriam Santos

Asst. Project Manager (current)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator (current)
M&E Specialist (current)
M&E Specialist (previous)
Accountant
Budget Officer (current)
Budget Officer (previous)
Cashier
Area Project Manager, Rosario (current)
Area Project Manager, Rosario (previous)
Development Facilitator, San Isidro
Development Facilitator, Pinagsibaan-Putingkahoy
Area Project Manager, Lian
Development Facilitator, Prenza (current)
Development Facilitator, Prenza (previous)
Area Project Manager, Calatagan
Development Facilitator, BATAc

Provincial PMO-Laguna

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, San Benito
Development Facilitator, San Benito
Area Project Manager, Bay
Development Facilitator, Dila
Area Project Manager, Mabitac
Development Facilitator, Matulatula

Provincial PMO-Cavite

Project Manager (current)
Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Magallanes
Development Facilitator, Pacheco

Merle Manalo
Malic Ali
Ma. Surallah Rabino
Rafaelito Coronel
William Villena
Marcelina Cabel
Luzminda Falible
Josephine Aranda
Florescia Castillo
Loreta Solomon
Zenaida Cantos
Milagros Evangelista
Rowena Barcelona
Eva Romilla
Ariel Cortezano
Eufemia Catibog
Yolanda Luistro
Manuel Vaso
Crispina Madrigal

Fritzi Pantoja
Catalina Causaren
Rosalina Jumaquio
Glenn Quidayan
Carolina Basa
Rosalina Jumaquio
Rina Hinojosa
Glenn Quidayan
Melinda Coronado
Larina Lopez
Evelyn Signo
George Miras
Lydia Marasigan
Narcisa Matienzo
Maxima Mandocdoc
Marie Dimaculangan
Cornelio Villapando
Carol Lizo

Felixberto Kagahistan
Danilo Orbase
Ma. Rita Ganson
Franklin Maunes
Pamela Meneses
Josefina Avez
Marissa Galvez
Norivel Catihanan
Lurinda Famoso
Eufenia Paz
Carlito Cortez
Anita Fidel

Provincial PMO-Quezon II

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Mulanay
Development Facilitator, Canasid
Area Project Manager , Unisan
Development Facilitator, PTP

Alejandro Cruz
Elizabeth Villapando
Rolando Glifonea
Clemen Gamban
Zenaida Valles
Carmencita Gruta
Ma. Cecilia Arbis
Marilou Gliane
Minerva Doblón
Isabel Dilig
Gaudiosa Forneste
Cornelio Villapando
Cornelia Layba

REGION IV-B**Regional PMO**

Regional Project Manager (current)
Regional Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previos)
Asst. Project Manager (previous)
Engineer, Island Provinces
Institutional Development Coordinator
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
M&E Specialist
Accountant
Budget Officer
Cashier

Erlinda Pearl Armada
Homer Tobias
Luis Bueno Jr.
Antonio Evangelista
Leandro Caymo
Virgilio Laggui
Marilou Baslan
Ma. Dionne Cruz
Dalangin Parel
Rosanna Tabago
Josefina Lopez
Remelyn Babida
Carol Valera

Provincial PMO-Palawan

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, S. Española
Development Facilitator, Punang
Area Project Manager, Brooke's Pt.
Development Facilitator, Venturanza
Area Project Manager, Roxas
Development Facilitator, Abaroan

Conrado Guevarra
Ricardo Francisco
Regina Peñamora
Arnel Alzaga
Arsenia Magno
Gina Francisco
Gina Gavino
Maria Contrivida
Rossana Baluyot
Fortunata Siose
Leonora Abela
Betty Palatino
Evelyn Cadlaon
Edilberto Barrera
Edmund Acain

Provincial PMO-Oriental Mindoro

Provincial Project Manager (current)
Provincial Project Manager (previous)
Provincial Project Manager (previous)
Provincial Project Manager (previous)
Asst. Project Manager

Carolina Basa
Leticia Crucido
Alexander Juane
Antonio Evangelista
Isagani Placido

Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer
Area Project Manager , Calapan
Development Facilitator, Palhi
Area Project Manager , Pola
Development Facilitator, Matulatula
Area Project Manager , Gloria
Development Facilitator, Gloria Cluster

Provincial PMO-Romblon

Provincial Project Manager (current)
Provincial Project Manager (previos)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Taclobo
Development Facilitator, Taclobo

Provincial PMO-Occidental Mindoro

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Sibluyan
Development Facilitator, CLIPVIC

REGION V

Regional PMO

Regional Project Manager (current)
Regional Project Manager (previous)
Regional Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer

Melson Mañibo
Nomer Sebastian
Rizaldy Abog
Nimfa Lopez
Elizabeth Cabana
Esperanza Manalo
Sonia Caringal
Flor Lizen
Marina Balingasa
Rogelio Aldaba
Lucimer Paderes
Neroneo Autria
Augusto Cruzat

Catalina Causaren
Pacifico Bantang Jr.
Eduardo Falogme Sr.
Gregorio Forcadas Jr.
Elisa Fernando
Nenito Dulce
Oscar Rotoni
Lorelie Forio
Mellanie Lorzano
Elinet Fabro
Rosedel Fornal
Benjamin Fornal

Luisito Jacinto
Angelina Quijano
Tom Rey Abella
Maxima Griego
Magdalena Tolentino
Alex Macaladlad
Olivia Salgado
Alicia Jugo
Violeta Abante
Joselito Digma
Joselito Alfante

Wilfredo Leaño
Rogelio Rondan
Linda Hermogino
Desiderio Cornelio
Danilo Cea
Lerma Dino
Benjar Romero
Jesus dela Rosa
Hipolita Alvano
Diosdado Valencia
Miguel Bustamante Jr.

Provincial PMO-Albay

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Oas
Development Facilitator, San Vicente
Area Project Manager , Bacacay
Development Facilitator, Kaboronyugan

Salve Tonco
Edgar Polo
Escolastico Monilla Jr.
Rafael Bustamante
Wilfredo Paguio Jr.
Antonio Rabe
Erlinda Bragais
Metchie Strauss
Rene Palencia
Patricia Rastrullo
Loreta Serrano
Myrtle Neo
Jose Rex Balin

Provincial PMO-Camarines Sur

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Ocampo (current)
Area Project Manager , Buhi Iriga (previous)
Development Facilitator, May-ogob (current)
Development Facilitator, Buroc-busoc
Development Facilitator, San Antonio

Leonito Gaveria
Miguel Gracilla
Racquel Claveria
Vicenta Gapas
Rodel Martinez
Agusto Medina Jr.
Helen Perez
Renato Bequillo
Marissa Baduria
Armi Faurillo
Benito Mabagos
Mercedes Breboneria
Antonio Yapan
Edmundo Nacario
Macaria Monte
Ricardo Morante

Provincial PMO-Masbate

Project Manager (current)
Project Manager (previous)
Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Specialist
M & E Specialist
Accountant
Cashier
Budget Officer
Area Project Manager, Milagros
Development Facilitator, TAJAM

Rodrigo Realubit
Eliezer Reuyan
Mildred Macaraig
Samuel Ongcal Jr.
Jovito Rejuso
Romulo Wency Olaquer II
Larry Esureña
Emma Mañago
Alexander Delera
Mavie Teodoro
Nessy Pabilando
El Olivar
Asuncion Delgado

Provincial PMO-Sorsogon

Project Manager (current)
Project Manager (previous)
Project Manager (previous)
Asst. Project Manager
Engineer

Roseller Olayres
Emerson Moral
Lucia S. Vitug
Blenda Lucero
Gerardo Abrada

Institutional Development Coordinator
Agri. Development Specialist
M & E Specialist
Accountant
Cashier
Budget Officer
Bookkeeper
Clerk
Area Project Manager, Casiguran
Development Facilitator, Casiguran Cluster

Norberto Laguna
Ana Mae Ebuenga
Maribel Lubiano
Amaro Belen
Ella Luchavez
Brenda Baraquel
Cecille Dicen
Lynn Ibarra
Rodrigo Estremera
Marciana Olondres

REGION VI

Regional PMO

Regional Project Manager
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator (current)
M&E Specialist
Accountant
Cashier
Budget Officer (current)
Budget Officer (previous)

Alexis Arsenal
Mercy Lagaña
Susan Garrido
Roberto dela Cruz
Nelita Azucena
Delfa Banga
Lani Salarda
Jolyn Millama
Corazon Robles
Medalie Hilario
David Dionela

Provincial PMO-Aklan

Project Manager
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer (current)
Engineer (previous)
Institutional Development Coordinator
Agri. Development Specialist (current)
Agri. Development Specialist (previous)
M & E Specialist
Accountant
Cashier (current)
Cashier (previous)
Budget Officer
Area Project Manager, Ibabay Upland
Development Facilitator, Ibabay Upland

Daniel Martelino
Numeriano Cordova Jr.
Ernesto Anino
Nora dela Rosa
Haidero Peniano
Marissa Mendoza
Alexys Apolonio
Lourdes Dea Pelayo
Angieline Topacio
Connie Tendan
Emilie Jimera
Susan Diangson
Eufemia Maquinica
Anatolio Suner
Luzviminda Teodocio

Provincial PMO-Antique

Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Specialist (current)
Agri. Development Specialist (previous)
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Pandan

Ismael Garzon
Cecilia Romero
Noel Pagunsan
Arlene Quicoy
Florentino Siladan
Vicky Sandoy
Enriqueta Pacete
Arlene Quicoy
Darlene Cazeñas
Rhoda Bernadette Castillon
Meriam Calubiran
Romeo Sevilla

Development Facilitator, JINAFABRA
Area Project Manager, Sibalom
Development Facilitator, Bili

Ada Ocheda
Ludimer Capague
Joselito Gerardo Llantino

Provincial PMO - Capiz

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Specialist
M & E Specialist
Accountant
Budget Officer
Cashier (current)
Cashier (previous)
Area Project Manager , Panit-an
Development Facilitator, Capagao Timpas

Bernardo Erispe
Romeo Ocbeña
Glenn Maquiran
Nilda Celso
Grace Tunguia
Malene Hallares
Vivia Gelera
Nora Mae Maquiran
Josephine Consing
Merly Payo
Merly Blacano
Eva Tolentino
Cristeta Señeres

Provincial PMO-Iloilo

Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Specialist
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Passi City
Development Facilitator, Jaguimitan

Ricardo Fernandez
Ma. Ella Buenaventura
Antonio Mocero
Rosemarie Tarol
Rosalinda Daborbor
Edin Saldo
Marites Legaspi
Jose Larry Esclamado
Edna Lachica
Henry Dieron
Jasmin Guintivano

Provincial PMO-Negros Occidental

Provincial Project Manager
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer
Area Project Manager, San Carlos City
Development Facilitator, Bagonbon
Area Project Manager, Kabangkalan City
Development Facilitator, NORA (current)
Development Facilitator, NORA (previous)

Felicidad Banares
Gideon Yongque Jr.
Ronald Gareza
Arnulfo Figueroa
Gerardo Romay
Milagros Flores
Antonida Yulo
Mercy Cabayao
Marieta Bee
Leony Lamela
Reuben Ponce
Merlyn Sumayo
Dennis Florentino
Norman Rhys Israel
Rosendo Abaja

REGION VII

Regional PMO

Regional Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator

Datu Yusoph Mama
Eliasem Castillo
Josephine Bonachita
Carmelita Morales

Agri. Development Coordinator
M&E Specialist
Accountant
Cashier (current)
Cashier (previous)
Budget Officer

Bonifacio Javier
Estela Caluna
Evelio Ouano
Detta Tibay
Anabel Zapanta
Cirila Bandico

Provincial PMO-Bohol

Provincial Project Manager
Asst. Project Manager
Engineer (current)
Engineer (previous)
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M&E Specialist
Accountant (current)
Accountant (previous)
Cashier
Budget Officer
Area Project Manager, Trinidad
Development Facilitator, Estaca

Johnson Sinco
Roberto Malignat
Leonard Cagampang
Abundio Nuez
Joseph Dagamac
Corazon Estocado
Magno Tabaranza
Gil Torero
Lumirane Calamba
Ma. Joey Borja
Milagros Opus
Rachel Seplon
Necifora Lomod
Alpio Galido

Provincial PMO-Cebu

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
M&E Specialist (current)
Accountant (current)
Accountant (previous)
Cashier
Budget Officer
Area Project Manager, Pinamungahan
Development Facilitator, Anopog Camugao

Virgilio Alcomendras
Florentino Cabucos
Varinia Fabillar
Marmee Padul
Mary Lyn Remo
Victoriano Morato
Liza Cabaluna
Suzella Talle
Jerwin Tiamson
Andrea Paciana Labra
Eleanor Madera
Marcial Romano
Wigberto Donan
Victoriano Morato

Provincial PMO-Negros Oriental

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Bayawan
Development Facilitator, SDC-3 Narra

Grace Fua
Stephen Leonidas
Gerry Gumalo
Rita Ann Ambrose
Arnel Amor
Bonifacio Silot
Maria Zosa
Julam Colina
Rodolfo Temprosa
Eliza Temprosa
Bethoven Melodia
Myrna Toledo

REGION VIII**Regional PMO**

Regional Project Manager (current)
Regional Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer (current)
Engineer (previous)
Institutional Development Coordinator
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
M&E Specialist
Accountant
Cashier
Budget Officer

Homer Tobias
Tiburcio Morales
Reynaldo Villas
Paulina Canales
Diogenes Salamida
Constantino Cabanas
Josefina Amande
Rosemarie Arreglo
Melicia Ong
Francisco Diloy
Digna Baldeobar
Angelina Cadigoy
Segundino Matias

Provincial PMO-Leyte

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Merida
Development Facilitator, Puertobello
Development Facilitator, Sta. Fe ARC

Enrique Granados III
Marciano Costiniano
Serotina Cañas
Jose Mazo Jr.
Ben Ganzo
Melchor Cadapan
Ramon Castroverde
Leo Bautista
Renato Solaña
Cirilo Cotiamco
Felicisimo Olorvida
Melvin Aguilar

Provincial PMO-Biliran

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist (current)
M&E Specialist (previous)
Accountant (current)
Accountant (previous)
Cashier
Budget Officer
Area Project Manager, Biliran
Development Facilitator, Biliran
Area Project Manager, Naval
Development Facilitator, Naval

Venerio Yap
Prisco Macariola Jr.
Ismael Aya-ay
Rudy Florencio
Nerio Loyola
Noel Salloman
Ismael Aya-ay
Marilee Cabilar
Daisy Velasquez
Lilibeth Petilla
Joselito dela Peña
Diosdado Lempiado
Helen Curso
Julita Lacandazo
Elna Contratista
Violeta Abad
Merlyn Megabon

REGION IX**Regional PMO**

Regional Project Manager (current)
Regional Project Manager (previous)
Assistant Project Manager
Engineer

Julita Ragandang
Rogelio Tamin
Floripes Lagutin
Florinda Depamaylo

Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer

Luzuela Culanculan
Edna Alameda
Jerome AVECILLA
Amelita Alfanta
Ibrahim Marmay
Emerita Amahan

Provincial PMO-Zamboanga del Sur

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Ramon Magsaysay
Development Facilitator, Campo IV
Development Facilitator, Sapa Anding (current)
Development Facilitator, Sapa Anding (previous)
Area Project Manager , Guipos
Development Facilitator, Balongating

Romeo Pepe Ladao
Raymundo Bernardo
Nestor Ermac
Emerita Fuerzas
Nimfa Ogoy
Segundo Torres
Lusviminda Tamse
Ma. Cecilia Agnis
Gloria Bulahan
Pury Egipto
Leah Ricalcar
Ma. Marcylyn D. Robaro
Ruby Flor
Adelfa Ocampo
Mila Aniversario

Provincial PMO-Zamboanga del Norte

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Specialist
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Katipunan
Development Facilitator, Triple S
Area Project Manager, Polanco
Development Facilitator, Glivs

Rogelio Balladares Sr.
Raul Sy
Amando Alama
Hector Doctor
Leonesa Alpha
Ma. Luisa Alingal
Marirose Balladares
Fernando Adorio
Delma Castante
Milagros Jickain
Basilides Cuento
Elbert Alonzo
Concepcion Sandueta

REGION X

Regional PMO

Regional Project Manager (current)
Regional Project Manager (previous)
Regional Project Manager (previous)
Assistant Project Manager (current)
Assistant Project Manager (previous)
Assistant Project Manager (previous)
Engineer (current)
Engineer (previous)
Engineer (previous)
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Institutional Development Coordinator (previous)
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)

John Maruhom
Alimoden Domado
Antonieta Borra
Nicanor Peralta
Norberto Amora
Shirley Arquiza
Evelyn Salcedo
Alibasa Andig
Ruther Dahino
Mabel Loyola
Cecile Velozo
Mabel Loyola
Corazon Penaso
Violeta Cajés

M&E Specialist (current)
Accountant (current)
Accountant (previous)
Accountant (previous)
Cashier (current)
Cashier (previous)
Budget Officer (current)
Budget Officer (previous)

Vivian Z. Dolor
Helen Oclarit
Cecile J. Mindajao
Ellinor Judyfind Abragan
Amelita T. Mercado
Marilyn Pielago
Seny Fe Fabe
Gemma Pajo

Provincial PMO-Misamis Oriental

Provincial Project Manager (current)
Provincial Project Manager (previous)
Provincial Project Manager (previous)
Asst. Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M & E Specialist
Accountant (current)
Accountant (previous)
Cashier
Budget Officer
Area Project Manager ,Cagayan De Oro
Development Facilitator, Mambuaya
Area Project Manager ,Naawan
Development Facilitator, Don Pedro Patag

Zorayda Omar Macadindang
Norberto Amora
Teresita Depeñoso
Bella Veja Dilla
Marcos Bael Jr.
Ma. Gianelli A. Ecuacion
Amelia Fuentes
Carmencita Alboria
Lily Gaamil
Felipa Dimarucut
Jocelyn Geollegue
Gemma Pajo
Florenda Diolanto
Nicanora Espino
Policarpio Sanchez
Ronnie Legaspi
Flordeliza Gutos

Provincial PMO-Bukidnon

Provincial Project Manager
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator
Agri Development Coordinator
M & E Coordinator (current)
M & E Coordinator (previous)
Accountant
Budget Officer (current)
Budget Officer (previous)
Cashier
Area Project Manager, Don Carlos (current)
Area Project Manager, Don Carlos (previous)
Development Facilitator, Bismartz (current)
Development Facilitator, Bismartz (previous)
Area Project Manager, Cabanglasan
Development Facilitator, Cabanglasan (current)
Development Facilitator, Cabanglasan (previous)

Julio Celestiano Jr.
Jose Ma. Baguio Jr.
Ofelia Hernandez
Vicente Tan
Alex Bahala
Marivic Palma
Ma. Clara Sarmiento
Jose Ma. Baguio Jr.
Editha Jamis
Concepcion Abregana
Elgen Algas
Flor Batonghinog
Florencio Garcia
Tarcisio Mapalo
Alicia Garcia
Jessie Mapita
Dolores Apostol
Felipe Estrada
Jusan Tuazon

Provincial PMO-Misamis Occidental

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer (current)

Metalicop Unda
Roumundo JA Edades
Allan Apao
Elizardo Villaseca
Erlyn Suco

Engineer (previous)
Institutional Development Coordinator
Agri-Business Coordinator
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Aloran
Development Facilitator, Ladulcasban
Area Project Manager, Plaridel (current)
Area Project Manager, Plaridel (previous)
Development Facilitator, Mamanga Daku
Area Project Manager, Calamba
Development Facilitator, Siloy

Blessilda Calipusan
Azucena Acaac
Hiyasmin Undag
Merla Jimenez
Isabel Resma
Merlyn Paderanga Salac
Agnes Vocal
Federica Lacerna
Ruben Cajan
Maria Simborio
Alejandre Astrero
Diosdado Tabujara
Venerando Orog
Priscilla Calibo

Provincial PMO-Camiguin

Project Manager
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer (current)
Engineer (previous)
Institutional Development Coordinator
Agri. Development Coordinator (current)
M&E Specialist (current)
Accountant (current)
Accountant (previous)
Cashier
Budget Officer
Area Project Manager, Tacangon
Development Facilitator, Triple S

Rodolfo Gamo
Jesus Wagas
Cesario Egos
Sarah Fe Malaque
Jacinot A. Tagupa
Reuby Bullecer
Galvin Ladao
Susana Aranas
Marivel Lustre
Hermie Lim
Rosa Salas
Celia Patangan
Benito Namit
Eugenio Abecia

REGION XI

Regional PMO

Regional Project Manager
Assistant Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier (current)
Cashier (previous)
Budget Officer

Rodolfo Inson
Aurora Canezal
Mary Jean Lacaba
Jean Dumandan
Regalado Onajon
Adolfo Vega
Melaine Bual
Stella Vega
Emma Tumpag
Adelaida Hernando
Paulina Moreno

Provincial PMO-Davao Del Sur

Provincial Project Manager
Asst. Project Manager
Engineer (current)
Engineer (previous)
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M & E Specialist
Accountant

Abundio Baliong Jr.
John Biadnes
Jeanshirlyn Cajos
Frederic Clarin
Bernadette Carmela Flores
Wilson Antiga
Genaro Espinoza
Cristina Albarico
Jesusita Juban

Budget Officer (current)
Budget Officer (previous)
Cashier
Area Project Manager , Matanao (current)
Area Project Manager , Matanao (previous)
Development Facilitator, New Murcia (current)
Development Facilitator, New Murcia (previous)
Area Project Manager , Magsaysay
Development Facilitator, Kasuga (current)
Development Facilitator, Kasuga (previous)

Lucia Alerta
Gina Salamanes
Elsie Bulangkit
Eduardo Ignacio
David Yangyang
Mary Jean Nonol
Esther Geyrozaga
Fortunato Alcaria
Gliny Relatado
Noel Ocariza

Provincial PMO-Compostela Valley

Project Manager
Assistant Project Manager (current)
Assistant Project Manager (previous)
Asst. Project Manager
Engineer (current)
Engineer (previous)
Engineer (previous)
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
M & E Specialist (current)
M & E Specialist (previous)
Accountant
Budget Officer (current)
Budget Officer (previous)
Cashier
Area Project Manager, Monkayo (current)
Area Project Manager, Monkayo (previous)
Development Facilitator, Awao
Development Facilitator, Salvacion Union
Development Facilitator, Anopog Camugao (current)
Development Facilitator, Anopog Camugao (previous)

Eduardo Suaybaguio
Melchor Jamora
Samuel Bastillada
Leo Nuneza
Nelson Amaut
Maximillan Ampo
Ramel Caligdong
Nimfa Valencia
Ellordo Gualberto
Alberta Calope
Juliana Maceren
Anna Romanillos
Baodilla Quezon
Annie Abandula
Carmelita Quiandao
Loyda Rurac
Lourdes de Leon
Maximillan Ampo
Melchor Jamora
Gilberto Cajulao
Nancy Ramos
Cristina Horcasitas
Nancy Ramos

Provincial PMO-Davao Oriental

Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M & E Specialist
Accountant (current)
Accountant (previous)
Budget Officer
Cashier
Area Project Manager, Baganga (current)
Area Project Manager, Baganga (previous)
Development Facilitator, SANVIDAKINSI (current)
Development Facilitator, SANVIDAKINSI (previous)
Area Project Manager, Gov. Generoso
Development Facilitator, Poblacion Crispin dela Cruz (current)
Development Facilitator, Poblacion Crispin dela Cruz (previous)
Area Project Manager, Mat-I

Benjamin Luz
Alejandro Cajegas
Daniel Apale
Arlene Linsag
Joselito Polistico
Bernard Cosare
Romeleah Amolata
Merna Panugan
Eusebia Nopre
Delia Aragon
Eduardo Ignacio
Gabriel Bayoneta
Adeline Pantuhan
Elunie Gambong
Felipe Gaviola
Concordia Bolambao
Leo F. Lascuña
Dennis Nazareno

Development Facilitator, Don Salvador Lopez

Elisa Bayate

REGION XII

Regional PMO

Regional Project Manager
Assistant Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist
Accountant
Cashier
Budget Officer

Nasser Musali
Lumumba Pido
Cynthia Marie Ortega
Ma. Cecilia Machan
Anwar Acop
Angelito Cabacungan II
Angelina Cabañog
Tambas Usman
Malik Natu

Provincial PMO-Sarangani

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri-Business Coordinator
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Alabel
Development Facilitator, Batodo

Paysal Tumog
Rando Famor
Allan Ibañez
Maristela Olegario
Minda Solaña
Romeo Rellin
Marlene Dansalan
Chariza Jane Ancheta
Marites Muesco
Salvador Sulaña
Teresa Gay

Provincial PMO-Sultan Kudarat

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Sen. Ninoy Aquino
Development Facilitator, Sen. Ninoy Aquino

Aaron Arumpac
Pabil Marohomsalic
Cairoden Marohomsar
Vindy Quintero
Meriam Gabuat
Magdalena Viduya
Mary Jane Geneza
Nelia Berbolla
Nestor Juanday
Adriano Losaria
Ronald Corneja

Provincial PMO-South Cotabato

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager, Polomolok
Development Facilitator, Glamang
Area Project Manager, Tampakan
Development Facilitator, Pobusilla

Felix Frias
Rolando Ortiz
Nestor Villanueva
Regina de Leon
Maria Orig
Saida Simoy
Bernadette Policarpio
Melba Apalla
Genevieve Labrador
Joel Urtado
Rolando Comprendio
Leo Bongcayao
Vicente Bañaria

CARAGA

Regional PMO

Regional Project Manager
Assistant Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator
M&E Specialist (current)
M&E Specialist (previous)
Accountant
Cashier
Budget Officer

Felix Aguhob
Alejandro Otacan
Evangeline Hanginan
Hermigina Gabor
Rosalia Caduan
Milagros C. Cañas
Rowena Paciones
Wilfredo Pateres
Elena Fajardo
Marivel Ciocon

Provincial PMO-Agusan Del Sur

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator (current)
M & E Specialist
Accountant
Budget Officer
Cashier
Area Project Manager , Sta. Josefa (current)
Area Project Manager , Sta. Josefa (previous)
Development Facilitator, Angas-Awao-Sayon
Development Facilitator, TAPSI
Area Project Manager , La Paz (current)
Area Project Manager , La Paz (previous)
Development Facilitator, La Paz (current)
Development Facilitator, La Paz (previous)
Area Project Manager , Loreto
Development Facilitator, Loreto
Area Project Manager , Prosperidad (current)
Area Project Manager , Prosperidad (previous)
Development Facilitator, Prosperidad
Area Project Manager , Trento (current)
Area Project Manager , Trento (previous)
Development Facilitator, TUMABA

Marino Gayramon
Myrna Ferrer
Ronie Gayol
Divina Castilla
Reynaldo Paciente
Daisy Solomon
Vicky Masendo
Chita Sarmiento
Marivic Otaza
Raul Caliso
Vilma Romero
Bienvenido Uy
Hazel Desales
Amier Calamba
Jeremias Salapang
Jane Labotero
Freddie Pendon
Wilfred Agbulos
Luzminda Arciaga
Mario Anaviso
Alex Trazo
Timoteo Marte
Ruth Dramayo
Merla Guhao
Lino Tamisan

Provincial PMO-Agusan Del Norte

Provincial Project Manager
Asst. Project Manager
Engineer
Institutional Development Coordinator
Agri. Development Coordinator (current)
Agri. Development Coordinator (previous)
M & E Specialist
Accountant (current)
Accountant (previous)
Budget Officer
Cashier
Area Project Manager , Las Nieves (current)
Area Project Manager , Las Nieves (previous)

Andre Atega
Denia Jabagat
Ernesto Gatab
Roselita Gaquing
Annelyn Chan
Virgilio Ignacio
Raul Hermoso
Amy Joanne Tabinas
Regiemar Tabinas
Teresita Ledesma
Agnes Magallon
Teresita Estrella
Alex Gamolo

Development Facilitator, MAP
Development Facilitator, ROSSAN
Area Project Manager , Nasipit (current)
Area Project Manager , Nasipit (previous)
Development Facilitator, Cullit (current)
Development Facilitator, Cullit (previous)
Area Project Manager, Butuan City
Development Facilitator, Basag
Development Facilitator, Katimali

Provincial PMO-Surigao del Sur

Provincial Project Manager (current)
Asst. Project Manager
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M & E Specialist
Accountant (current)
Accountant (previous)
Budget Officer (current)
Budget Officer (previous)
Cashier
Area Project Manager, Hinatuan
Development Facilitator, Hinatuan
Area Project Manager, San Miguel
Development Facilitator, LISBAR
Area Project Manager, Marihatag
Development Facilitator, Marihatag Cluster

Provincial PMO-Surigao del Norte

Provincial Project Manager (current)
Provincial Project Manager (previous)
Asst. Project Manager (current)
Asst. Project Manager (previous)
Engineer
Institutional Development Coordinator (current)
Institutional Development Coordinator (previous)
Institutional Development Coordinator (previous)
Agri. Development Coordinator
M & E Specialist (current)
M & E Specialist (previous)
Accountant
Budget Officer
Cashier
Area Project Manager , Malimono
Development Facilitator, Malimono
Area Project Manager , Libjo
Development Facilitator, SPARC Dinagat Libjo
Area Project Manager , Alegria
Development Facilitator, Alegria

Raul Telen
Cecilia Concon
Rodrigo Bitangcor
Ma. Teresa Maneja
Vicente Sigales Jr.
Lucio Juni
Mauriel Fesalboni
Chona Maceda
Emma Parreño

Benjamin Matakasil
Hernane Apacible
Mayluna Simplicio
Rebecca Murillo
Lanie Quico
Chie Jimenez
Jocelyn Malabanan
Amour Azarcon
Memia Antoc
Doris Salang
Jesusminda Bucarile
Reynaldo Dedicatoria
Joel Tabulao
Gilbert Jolejole
Emeliano Abila
Myrna Tabang
Restituto Marilla
Reynaldo Moreno

Fe Mercado
Pedro Condolon
Gilberto Salva
Edivo Martinez
Catalino Resurreccion
Hamabad Jacquez
Mariecho Montilla
Perfecto Lisondra
Lina Alvarez
Mariecho Montilla
Dante Manlimos
Bethsaida Dolera
Marivic Peñaranda
Rosalinda Penera
Samuel Cascayan
Eliseo Abaniel
Raul Caliso
Porferio Rivero
Venancia Signar
Magdalena Senturias

Office of the Assistant Secretary for Support Services

Assistant Secretary (current)	ASec. Kashmir Leyretana
Assistant Secretary (previous)	ASec. Jose Mari Ponce
Assistant Secretary (previous)	ASec. Antonette Raquiza
Assistant Secretary (previous)	ASec. Carlito Añonuevo

Office of the Undersecretary for Field Operations and Support Services

Undersecretary, SSO (current)	Undersecretary Gerundio Madueño
Undersecretary, FOG (previous)	Undersecretary Narciso Nieto
Undersecretary, SSO (previous)	Undersecretary Jose Mari Ponce
Undersecretary, FOG (previous)	Undersecretary Efren Moncupa
Undersecretary, FOG/SSO (previous)	Undersecretary Conrado Navarro

Office of the Secretary of Agrarian Reform

Secretary (previous)	Secretary Horacio Morales
Secretary (previous)	Secretary Hernani Braganza
Secretary (previous)	Secretary Roberto Pagdanganan
Secretary (previous)	Secretary Jose Mari Ponce
Secretary (previous)	Secretary Rene Villa
Secretary (current)	Secretary Nasser Pangandaman

Japan Bank for International Cooperation

Chief Representative (1999-2001)	Seichi Kitazawa
Chief Representative (2001-2003)	Mitsuro Taruki
Chief Representative (2003-2006)	Osamu Murata
Chief Representative (2006- up to present)	Hiroshi Togo
Project Officer (2000-2007)	Iya Peñarroyo
JBIC Representative	Jun Watanabe

Partner Agencies

National Irrigation Administration

Project Manager	Reynaldo Adao
Division Manager	Delsy Revellame
Division Manager	Conception Cablayan
Deputy Director	Pete de Guzman
Technical Support	Honorio Bautista, Jr.
Admin and Finance Head	Domingo Gazmin
Engineer	Pedro Eustaquio
Sr. Engineer A	Fe Pilapil
Engineer	Louie Mendoza
Engineer	Crispin Agtarap, Jr.

Department of Public Works and Highways

Project Manager I	Ernesto Gregorio, Jr.
Technical Support	Armando Castillo
Project Accountant	Cecilia Vicguerra
Technical Coordinator	Manny Bulusan
Technical Coordinator	Rosie Villamin
Technical Coordinator	Melba Sasoy
Financial Coordinator	Mirande Monzon
Coop Budget Specialist B	Maria Fe Thazon

Development Academy of the Philippines
DAP Bldg., San Miguel Avenue Ortigas Center,
Pasig City, Philippines

President Eduardo Gonzales & staff

Bureau of Postharvest Research and Extension
CLSU Compound, Science City of Muñoz, Nueva Ecija, Philippines

Director Ricardo Cachuela and Staff

Philippine Rice Research Institute
Maligaya, Science City Muñoz, Nueva Ecija, Philippines

Director Leocadio Sebastian and Staff

Ugnayan ng Pinunugod/Oblation Corps
UP sa Los Baños, Los Baños, Laguna Philippines

Director Jose Medina and Staff

Urbis Philippines, Inc
Unit 901, OMM-CITRA Bldg., San Miguel Avenue.,
Ortigas Center, Pasig City, Philippines

Director Requito Bellosillo and Staff

National Economic and Development Authority
Blessed Jose Maria Escriva Drive Pasig City, Philippines

OIC- Director General Augusto Santos

Department of Budget and Management
Malacañang, Metro Manila Philippines

Director Nora Oliveros and Staff

Department of Finance
BSP Complex, Roxas Blvd., Malate, Manila, Philippines

Undersecretary Roberto Tan

Department of Foreign Affairs
Roxas Blvd, Malate, Manila, Philippines

Secretary Alberto Romulo

Commission on Audit
DAR, Nationwide, Philippines

Auditor Noel Jacob and Staff



Department of Agrarian Reform
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