Republika ng Pilipinas
Pambansang Pangasiwaan ng Patubig
(NATIONAL IRRIGATION ADMINISTRATION)
Lungsod ng Quezon

OFFICE ADDRESS: NATIONAL GOVERNMENT CENTER
E. DE LOS SANTOS AVENUE
QUEZON CITY

TELEPHONE NOS.: 929-60-71 TO 79
FAX NO.: 9262846

OUR REFERENCE

MC # 21, s. 2012

MEMORANDUM CIRCULAR

TO : THE SR. DEPUTY ADMINISTRATOR, ACTING DEPUTY ADMINISTRATORS, DEPARTMENT / REGIONAL / OPERATIONS / PROJECT MANAGERS, IMO DIVISION MANAGERS AND ALL OTHERS CONCERNED

SUBJECT : **NIA's APPROVED INFORMATION SYSTEMS STRATEGIC PLAN (ISSP) 2011-2013**

NIA's Information Systems Strategic Plan (ISSP) 2011-2013 hereto attached is already approved, hence; it will be implemented in accordance with the provisions of R.A. 9184, otherwise known as The Government Procurement Reform Act (GPRA) and its Implementing Rules and Regulations to ensure that the best cost-effective solution is acquired. The ISSP identified the critical information systems that will support and address NIA's strategic thrusts and programs.

Pursuant to No. 4.1.2.2 under Section No. 4.0 Specific Guidelines of National Budget Circular No. 535 s. 2011 stating among others that computers and other information technology equipment requires clearance/approved **Information Systems Strategic Plan (ISSP)** from the National Computer Center under the Information Technology Office of the Department of Science and Technology.

In view of the above, all purchase requests (PR) for computers and other information technology equipments shall conform to Information and Communications Technology (ICT) resource requirements of NIA's ISSP.

For your information and guidance.

ANTONIO S. NANGEL
Administrator

Date: April 10, 2012

Department of Science and Technology
Information and Communications Technology Office
NATIONAL COMPUTER CENTER

ISSP ENDORSEMENT

PRMO-OL2011-12-067
December 20, 2011

NIA
RECEIVED: 646 - 18
DATE: 1-24-12
ADMINISTRATOR OFFICE

MR. ANTONIO S. NANGEL
Administrator
NATIONAL IRRIGATION ADMINISTRATION
National Government Center
EDSA, Quezon City

Dear **Administrator NANGEL:**

This refers to your request for endorsement of the National Irrigation Administration Information Systems Strategic Plan (NIA ISSP) for the period 2011-2013.

We are pleased to inform you that the ISSP sufficiently identified the critical information systems that will support and address NIA's strategic thrusts and programs. Along this line, we are endorsing the ISSP. However, we recommend that during the implementation phase, you follow the provisions of R.A. 9184, otherwise known as The Government Procurement Reform Act (GPRA) and its Implementing Rules and Regulations to ensure that the best cost-effective solution is acquired.

The attached authenticated ISSP serves as your official copy which is to be submitted to DBM.

Thank you for investing time and effort in accomplishing your Information Systems Strategic Plan. You can rely on our support to all your ICT endeavors.

Very truly yours,

DENIS F. VILLORENTE
Officer-In-Charge
Office of the Director-General

NATIONAL IRRIGATION ADMINISTRATION
JAN 24 2012
538-120
SR. [illegible]

NCC Building
C.P. Garcia Avenue
UP Diliman, Quezon City 1101
Philippines
Trunkline No. (632) 920-0101
Fax No. (632) 920-7414

EVALUATED BY:

REVIEWED BY:

DIRECTOR

PLANS REVIEW & MONITORING OFFICE

NATIONAL COMPUTER CENTER

ENDORSED ISSP

DATE 12/20/11

Website: www.nia.gov.ph

INFORMATION SYSTEMS STRATEGIC PLAN

For the period **2011 to 2013**

NATIONAL IRRIGATION ADMINISTRATION

Name of Department/Agency

Prepared by:

Signature: ______________________

Name in Print: **JULIUS U. CABAUATAN**

Position: Information System Development Chief A

Tel. No.: (02) 927-0916, (02) 928-3756

Fax No.: (02) 927-0916, (02) 927-4179

E-Mail Address: jucabauatan@yahoo.com

Scope

[ ] Department-Wide

[ ] Department – Central Office/Head Office

- [ ] Central Office only
- [ ] With Regional Offices/Field Offices
- [ ] With Bureaus

[✓] Agency-Wide

- [ ] Central Office only
- [✓] With Regional Offices/Field Offices

RECOMMENDED BY:

EDITA P. RAGODON
Manager, Management Information Division
Corporate Planning Services; Designated IS Planner

APPROVED BY:

ANTONIO S. NANGEL
Administrator

INFORMATION SYSTEMS STRATEGIC PLAN 2011-2013

T A B L E O F C O N T E N T S

EXECUTIVE SUMMARY 1-2

PART I. ORGANIZATIONAL PROFILE

A. Agency Vision/Mission Statement 3-5
- A.1. Mandate
- A.2. Vision Statement
- A.3. Mission Statement
- A.4. Strategic Thrusts and Programs

B. Agency Profile 6-10
- B.1. Name of Designated IS Planner
- B.2. Current Annual Budget
- B.3. Organizational Structure
  - B.3-A Total Personnel Complement CY 2010
  - B.3-B Personnel Complement (NIA Proper)
  - B.3-C Personnel Complement (Projects)
- B.4. Organizational Functional Chart

C. NIA and its Environment (Functional Interface Chart) 12

D. Present ICT Situation (Strategic Challenges) 13-14

E. Strategic Concerns for ICT Use 15-17

PART II. INFORMATION SYSTEMS STRATEGY

A. Conceptual Framework for Information Systems 18

B. Detailed Description of ICT Projects 19

C. Detailed Description of Information Systems 20-28

D. Impact and Linkages of Information Systems 29-30

E. Database Required 31-34

F. Network Layout 35-36
- F.1 Existing Network Layout
- F.2 Proposed Network Layout

INFORMATION SYSTEMS STRATEGIC PLAN 2011-2013

TABLE OF CONTENTS

PART III. INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) SOLUTIONS

A. ICT Solutions of the Information Systems 37-38
B. ICT Strategy for Public Access 39

PART IV. RESOURCE REQUIREMENTS

A. ICT Resource Requirements
- A.1. Hardware 40
  - A.1.1 Network and Telecommunications 41
  - A.1.2 Deployment of ICT Equipment 42-61
- A.2. Software 62-63
- A.3. ICT Services 64
- A.4. ICT Manpower and Organizational Structure
  - A.4.1. Plantilla Positions, Number of Existing and Proposed Positions 65
  - A.4.2. Existing ICT Organizational Structure 66
  - A.4.3. Proposed ICT Organizational Structure 67-69
    A.4.3A Statement of Functions
  - A.4.4. Proposed ICT Organizational Structure in the Agency Organizational Chart 70
- A.5. ICT Training Needs 71

B. Other Resource Requirements 72

PART V. DEVELOPMENT OF INVESTMENT PROGRAM

A. ICT Projects Implementation Schedule (None) 73-74
B. Information Systems Implementation Schedule 73-74
C. Summary of Investment 75-78

INFORMATION SYSTEMS STRATEGIC PLAN 2011-2013

EXECUTIVE SUMMARY

This Information Systems Strategic Plan (ISSP) 2011-2013 is an update and enhancement of the NIA's 3-year ISSP (2005-2007).

Due to constraint in financial resources of the agency some ICT strategies planned in the 2005-2007 ISSP were not implemented. However, ICT activities to comply with the e-Commerce Law and e-Governance policy were started although not included in the ISSP (2005-2007). The 2011-2013 ISSP embodies the deferred activities in the old ISSP and new ICT requirements set by the government that the agency's financial resources could support. The funds shall come from savings and increased Irrigation Service Fee (ISF) collection of the agency.

The Conceptual Framework of the ISSP (2011-2013) is envisioned taking into consideration the mission critical function of the agency. It would serve the information needs of management for decision-making and requirements of other government agencies including the office of the President.

Based on the mission critical functions of the agency, nine (9) major information systems are to be developed and implemented.

- Project Preparation IS
- Project Implementation IS
- Irrigation Systems Operation IS
- Irrigation Systems Repair and Maintenance IS
- Institutional Development IS
- Light and Heavy Equipment Management IS
- Financial Management IS
- Human Resources Management IS
- Property and Supply Procurement, Inventory and Management IS

Some sub-systems of these major information systems are already operational and/or for enhancement. Others are still for development.

The computing scheme at the NIA Central Office is networked/open systems. Installation of the structured cabling system of the NIA network was completed last June 2003. Structured cabling was installed in order to improve network performance and for ease of operation and maintenance. The structured cabling system is capable of connecting 340 workstations/PCs to the network. Mission critical information system shall run on the network. Application systems and office automation used solely for departamental requirements would continue to run on stand-alone PCs.

EXECUTIVE SUMMARY

Regional and other field offices would continue to use stand-alone PCs. Transmittal of data/information and documents to the Central Office shall be thru the internet via e-mail facility.

For the agency's internet connectivity at the Central Office, a Memorandum of Agreement with DOST-ASTI has been signed. Connectivity to the DOST-ASTI "PREGINET" in Diliman, Quezon City is already completed and NIA has procured a broadband domestic leased line. Regional and Field offices shall connect thru Internet Service Provider in their locality.

Hardware requirements in the three-year plan are for the enhancement of the Central Office Network and for the Irrigation Systems Offices to replace obsolete/non-operational computers and printers used for the Computerized ISF Billing and Collection System.

Software strategy of the agency would be the gradual conversion and adoption of open system software. The strategy would solve problem of expensive licenses of new and/or update of proprietory software.

Information Systems and Application Systems would continue to be developed in-house with hiring of contract of service personnel and consultant, if needed.

The existing Information and Communication Technology (ICT) unit of the agency should be strengthened to cope with the increased ICT functions. Additional positions are proposed for the ICT unit under the Corporate Planning Services at the Central Office. ICT positions are also recommended in the regional offices to support the activities/functions at the field level.

The proposed ICT organizational structure envisions an ICT Organization that can operate and maintain the Central Office Network, maintain the agency's website and databases, develop and maintain the information systems, and support requirements including those at the field offices.

As per Executive Order No. 893 Promoting the Deployment and Use of Internet Protocol Version 6 (IPV6), the Agency shall be IPV6 compliant. The deployment of IPV6 will be adopted in order to cope up with the continued expansion of the internet in the country.

The total ICT investment for the 3-year plan is **P103,146,985.00**. Detailed breakdown of the budget is shown in the Summary of Investment of the ISSP.

PART I. ORGANIZATIONAL PROFILE

A. AGENCY VISION/MISSION STATEMENT

A.1 Mandate

- Legal Basis

The National Irrigation Administration is a government-owned and controlled corporation tasked with the development and operation of irrigation systems all over the country. It was created under RA 3601 which was signed on June 22, 1963 by then President Diosdado Macapagal.

By virtue of Presidential Decree (PD) No. 1 issued by President Ferdinand Marcos, all irrigation activities were integrated under the NIA. The Agency's powers were likewise broadened and capitalization increased from P300 M to P2 B by the issuance of PD 552 on September 11, 1972. Capitalization was further increased to P10 B under PD 1702 on July 17, 1980.

- Functions

  - Investigates and studies all available and possible water resources for irrigation;
  - Plans, designs, constructs and/or improves all types of irrigation projects and appurtenant structures;
  - Operates, maintains and administers all national irrigation systems;
  - Supervises the operation, maintenance and repair or otherwise, administers temporarily when necessary, all communal and pump irrigation systems constructed, improved and/or repaired wholly or partially with government funds;
  - Delegates partial or full management of national irrigation systems;
  - Charges and collects irrigation fees or administration charges from beneficiaries of systems constructed or administered by NIA;
  - Constructs multipurpose water resources projects that give other benefits aside from irrigation;
  - Imposes as administration and engineering overhead charge 5% of the total cost of projects it undertakes

PART I. ORGANIZATIONAL PROFILE

A.2 Vision Statement

NIA embraces the following vision:

For the Irrigation Sector

Nationwide existence of efficient irrigation systems -

- That are environmentally sound and socially acceptable
- Located in strategic agricultural areas
- Capably managed by viable and dynamic Irrigators Associations
- Profitably producing good quality rice and diversified crops
- Progressively improving the welfare of the farm families, the rural communities
- Sustainably supporting the Food Production Program of the Government

And for NIA -

- Transformed into a financially independent organization
- With its employees enjoying compensation and benefits comparable with other service-oriented government corporations
- Attaining its prominence as a leader in irrigation management in the Asian region
- Attaining excellence as a well managed government corporation

A.3 Mission Statement

Development and management of water resources for irrigation and provision of necessary services on a sustainable basis consistent with the agricultural development program of the government.

The objectives of NIA are:

- To develop and maintain irrigation systems in support of the agricultural development program of the government
- To provide adequate level of irrigation service on a sustainable basis in partnership with the farmers and Local Government Units (LGUs)
- To provide technical assistance to institutions in the development of water resources for irrigation
- To support economic and social growth in the rural areas thru irrigation development and management
- To improve and sustain the operation of NIA as a viable corporation and service–oriented agency

PART I. ORGANIZATIONAL PROFILE

A.4 Strategic Thrusts and Programs

- Focus on small-scale, labor intensive irrigation projects
- Prioritize implementation of projects in economically depressed areas, particularly in Mindanao
- Accelerate completion of on-going projects
- Pursue big projects funded by multilateral and bilateral institutions
- Build up capacity to promote local government unit participation in irrigation development
- Rehabilitate existing irrigation systems
- Improve or upgrade canal systems, drainage systems, flood protection works and farm-to-market roads
- Sustain operation and maintenance of National Irrigation Systems
- Accelerate Irrigators Associations development towards turnover of O&M of irrigation systems
- Rehabilitate, protect and manage watersheds of irrigation systems
- Intensify revenue generation; Irrigation Service Fee collection
- Evolve a lean, strong, well trained and sustainable organization

PART I. ORGANIZATIONAL PROFILE

B. **AGENCY PROFILE**

B.1. **Name of Designated IS Planner**

EDITA P. RAGODON
Division Manager
Management Information Division
Corporate Planning Services
cs_mid@nia.gov.ph; corplan_mid@yahoo.com

B.2 **Current Annual Budget (2011)** **P 3,355,092,000.00**

Current Operating Budget	**2,776,408,000.00**
Budget for Capital Outlay	**578,684,000.00**

B.3 **Organizational Structure as of December 2010**

• Total No. of Employees	-	**6,268**
• No. of Regional/Extension Office	-	**16**
• No. of Irrigation Management Offices	-	**38**
• No. of Division (MRIIS & UPRIIS)	-	**9**
• No. of Dam & Reservoir (MRIIS & UPRIIS)	-	**2**
• No. of Project Management Offices	-	**11**

PART I. ORGANIZATIONAL PROFILE

B.3-A **TOTAL PERSONNEL COMPLEMENT CY 2010**
As of December 2010

RESPONSIBILITY CENTER	MONTHLY	DAILY	TOTAL
NIA Proper	**3,721**	**1,421**	**5,142**
Projects	**328**	**798**	**1,126**
Grand Total	**4,049**	**2,219**	**6,268**

PART I. ORGANIZATIONAL PROFILE

B.3-B **PERSONNEL COMPLEMENT (NIA PROPER)**
As of December 2010

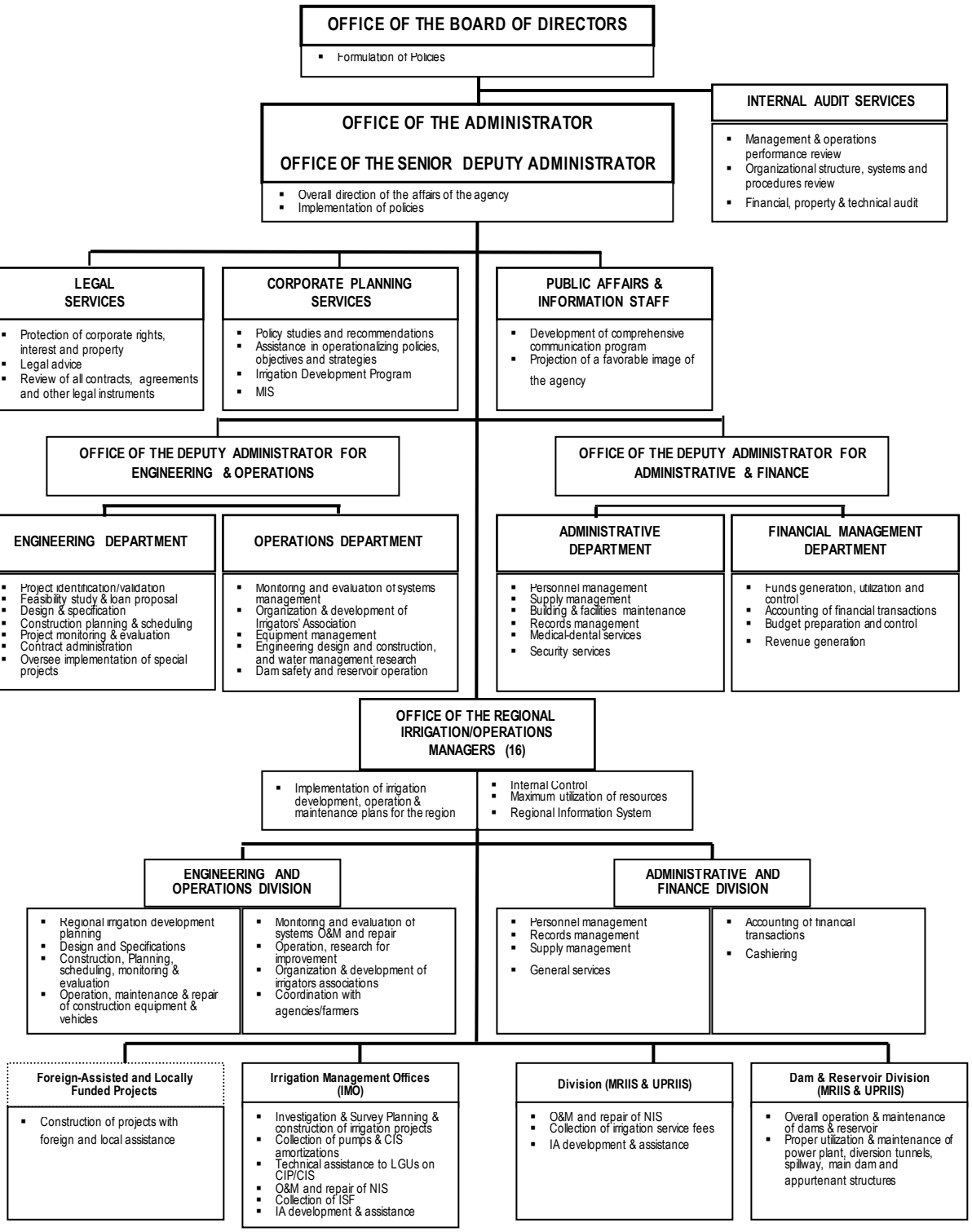
Responsibility Center	Monthly						Daily			**Total**
	Autho-rized	Perma-nent	Temp-rary	Un-placed	CTI	Sub-Total	COB Charged	Project Charged	Sub-Total	
Central Office	392	320	-	15	62	397	54	35	89	**486**
Region 1	231	115	-	-	38	153	6	33	39	**192**
CAR	136	71	7	-	18	96	-	46	46	**142**
Region 2	274	99	40	-	63	202	18	346	364	**566**
MRIIS	431	268	34	-	112	414	64	6	70	**484**
Region 3	235	155	22	5	109	291	9	23	32	**323**
UPRIIS	474	286	95	-	103	484	8	36	44	**528**
Region 4	239	200	12	6	77	295	29	17	46	**341**
Region 5	123	78	11	2	34	125	15	27	42	**167**
Region 6	207	184	13	-	17	214	23	57	80	**294**
Region 7	51	26	-	7	2	35	2	-	2	**37**
Region 8	178	88	13	-	6	107	39	165	204	**311**
Region 9	96	77	1	-	17	95	2	13	15	**110**
Region 10	128	98	6	1	23	128	12	94	106	**234**
Region 11	174	168	-	-	29	197	32	48	80	**277**
Region 12	309	246	33	1	42	322	9	70	79	**401**
Region 13	141	130	-	1	35	166	13	70	83	**249**
Total	**3,819**	**2,609**	**287**	**38**	**787**	**3,721**	**335**	**1,086**	**1,421**	**5,142**

PART I. ORGANIZATIONAL PROFILE

B.3-C **PERSONNEL COMPLEMENT (PROJECTS)**
As of December 2010

PROJECT	AUTHORIZED	MONTHLY	DAILY	TOTAL
FOREIGN-ASSISTED PROJECTS:				
Agno River Integrated Irrigation Project (ARIIP)	188	35	264	**299**
Banaoang Pump Irrigation Project (BPIP)	45	12	25	**37**
Casecnan Multipurpose Irrigation Power Project (CMIPP)	138	12	23	**35**
Help for Catubig Agricultural Advancement Project (HCAAP)	23	11	170	**181**
Malitubog-Maridagao Irrigation Project (MMIP)	138	11	31	**42**
Participatory Irrigation Development Project (PIDP)	16	12	6	**18**
Southern Philippines Irrigation Sector Project (SPISP)	60	20	9	**29**
SUB-TOTAL	**608**	**113**	**528**	**641**
LOCALLY-FUNDED PROJECTS:				
Addalam River Irrigation Project (ARIP)	40	22	-	**22**
Balog-Balog Multipurpose Project (BBMP)	433	15	244	**259**
Comprehensive Agrarian Reform Project-IC (CARP-IC)	270	171	22	**193**
Small Reservoir Irrigation Project (SRIP)	11	7	4	**11**
SUB-TOTAL	**754**	**215**	**270**	**485**
T O T A L	**1,362**	**328**	**798**	**1,126**

B.4. ORGANIZATIONAL FUNCTIONAL CHART



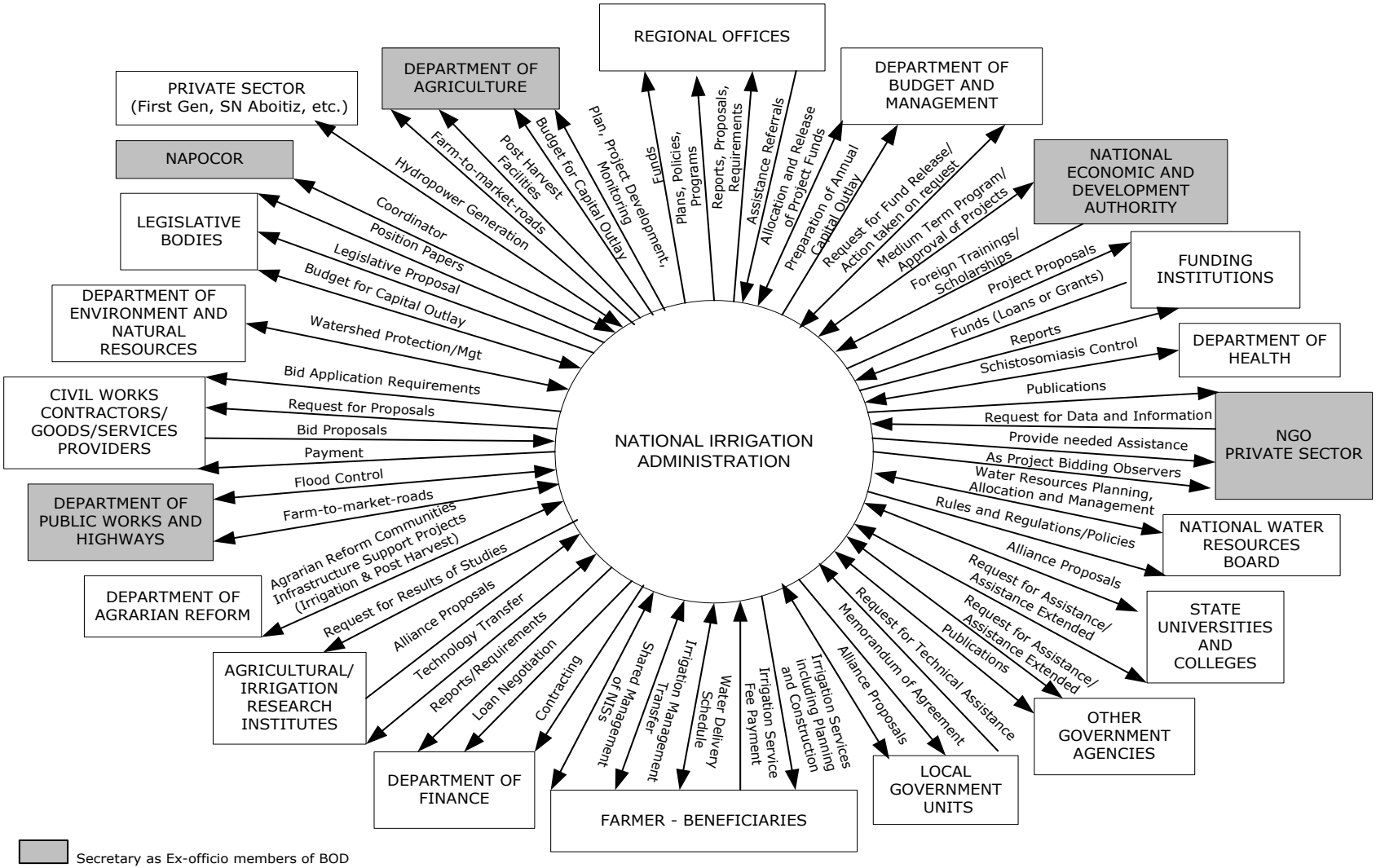
PART I. ORGANIZATIONAL PROFILE

B.1 **FOR DEPARTMENT-WIDE ORGANIZATIONS ONLY (NOT APPLICABLE)**

ORGANIZATIONAL UNIT	NAME OF AGENCY HEAD	DESIGNATED IS PLANNER			NO. OF EMPLOYEES	CURRENT ANNUAL BUDGET
		NAME	PLANTILLA POSITION	E-MAIL ADDRESS		

PART I. ORGANIZATIONAL PROFILE

C. NATIONAL IRRIGATION ADMINISTRATION AND ITS ENVIRONMENT (FUNCTIONAL INTERFACE CHART)



PART I. ORGANIZATIONAL PROFILE

D. PRESENT ICT SITUATION (STRATEGIC CHALLENGES)

The agency is promoting the use of Information and Communication Technology to efficiently carry out its mandate of developing water resources primarily for irrigation nationwide pursuant to the government policy of e-Governance. In spite of the meager financial resources, the agency is adopting ICT in the prosecution of its projects, operation and maintenance of irrigation systems and financial management and administrative services to improve delivery of its services.

The Central Office have acquired three hundred ninety seven (397) PCs and Printers, distributed to the different departments/offices. At the field level, there are 2,594 PCs and Printers distributed to the regional offices, provincial offices and irrigation systems offices.

The Local Area Network of the Central Office is now operational. Structured Cabling System was installed to facilitate operation and maintenance of the network. The structured cabling of the network would also facilitate network segmentation and improve network performance. The structured cabling network is capable of connecting 340 workstations/PCs.

The network is capable of the following services: Internet Access, Web based e-mail, Intranet, Messaging (file sharing, chatting, instant messaging), Anti-Virus Scanning, File and Printer Sharing and Document Tracking.

The agency has procured the E-1 Broadband Domestic Leased Line to connect NIA to the ASTI-DOST "PREGINET" in Diliman, Quezon City. Access to Information and Data from other Agencies would now be easy. Submission of electronic documents from field offices with internet connection would be fast. With the broadband connection the NIA Central Office would have the capability for Video Conferencing with its field offices.

Several information/application systems are already developed and are operational e.g. Payroll System, Equipment Inventory and Management System, Irrigation Service Fee Billing and Collection System, etc.

Office automation is now widely used in all NIA offices. Office staff are trained in the use of office automation software like, WORD, EXCEL, POWER POINT and Desktop Publishing.

PART I. ORGANIZATIONAL PROFILE

The NIA Website was launched in August 2002, hosted by the Department of Agriculture. The Website was developed in-house and is on Stage 3 of the UN-ASPA Stages of E-Government. The Website contains the basic website content prescribed under NCC – MC No. 2002-01, among others. The remaining stages are still for development. Current ICT Staff of the agency would need additional training and experience to do the job in-house. Hiring of Consultant/Developer to do the remaining three stages is contemplated, if fund would be available.

PART I. ORGANIZATIONAL PROFILE

E. STRATEGIC CONCERNS FOR ICT USE

E.1 NARRATIVE DESCRIPTION

The National Irrigation Administration established by Rebuplic Act No. 3601 in 1963 as a government owned and controlled corporation is mandated to develop, improve, operate and maintain irrigation systems throughout the country. NIAs operating offices comprise **16 RIO**, **38 IMO**, **9 DIVISION (MRIIS & UPRIIS), 2 DAM & RESEVOIR (MRIIS & UPRIIS)** and **11 PMO** and located in almost all provinces nationwide. This presents constraint in data/information collection, dissemination and sharing among the various units.

With the advent of information and communication technology it offers strategic solution to support the needs of the different operating units in order to improve the agency's operation and delivery of services.

The use of ICT in the execution of its mandate from irrigation project conception to construction would accelerate completion of projects and benefit the food production program of the government. Thru the use of ICT critical information can reach top management on time for decision-making. ICT solutions are used in project scheduling, program of work, resource allocation and monitoring of status of projects.

In irrigation systems operation, ICT can be used in preparation of water allocation and delivery schedules for early dissemination to farmer-beneficiaries. The use of Geographic Information System in spatially referenced geographic data is deemed necessary to improve performance of the NISs. Improved NIS performance results to the increase in irrigated areas, more efficient use of water and higher productivity per unit volume of water used.

Build-up of database on the history of NISs repair and rehabilitation in digital format would be undertaken to provide reliable information in the preparation of repair and rehabilitation program of irrigation systems.

In view of the thrust of the agency towards irrigation management transfer to Irrigators Associations, the use of GIS would facilitate determination of accurate boundaries of areas to be turned over to the IAs.

PART I. ORGANIZATIONAL PROFILE

As mandated by law, NIA collects Irrigation Service Fee (ISF) from the farmer-beneficiaries to cover the cost of operation and maintenance of irrigation systems. As per Irrigation Service Fee Collection Efficiency Report (ISFCER), average Collection Efficiency for past 3 years on Current Account is 58.73% and on Back Account is 2.25%. Computerization of ISF Billing and Collection System is a strategy which was adopted starting year 2005 to improve ISF collection performance.

The strategic solutions offered by ICT are also utilized in Equipment Management, Financial Management and Administrative Services for efficient use of resources and timely delivery of service.

E.2

MAJOR FUNCTIONS	CRITICAL MANAGEMENT/ OPERATING/ BUSINESS SYSTEMS	PROBLEMS	INTENDED USE OF ICT
Development of New Irrigation Projects	Creation of Irrigation Project Proposal	Inconsistent number of pipe-line projects that are ready for implementation	Project Preparation IS: Build-up of basic Planning Databases
Project Implementation	Monitoring of Status of Projects and Evaluation Of Project.	Late Submission of Reports. Delayed Completion of Projects.	Project Implementation IS: On-line submission of Reports
Irrigation Systems Operation	Monitoring of ISF and Water Management Activities	No established record of spatially Referenced Geographic Data	Irrigation Systems Operation IS: Use of GIS Database
Repair and Maintenance of Irrigation Systems	Repair of Damaged Structure and Maintenance of Facilities	No Organized Record of repair and rehabilitation of NIS and CIS	Irrigation Systems Repair and Maintenance IS: Build-up of History of NISs and CIS Repair and Rehabilitation Databases
Irrigation Service Fee Collection	ISF Billing and Collection	Delayed Preparation and Issuance of Bills. Low ISF Collection Efficiency.	Financial Management IS: Computerization of Billing Process

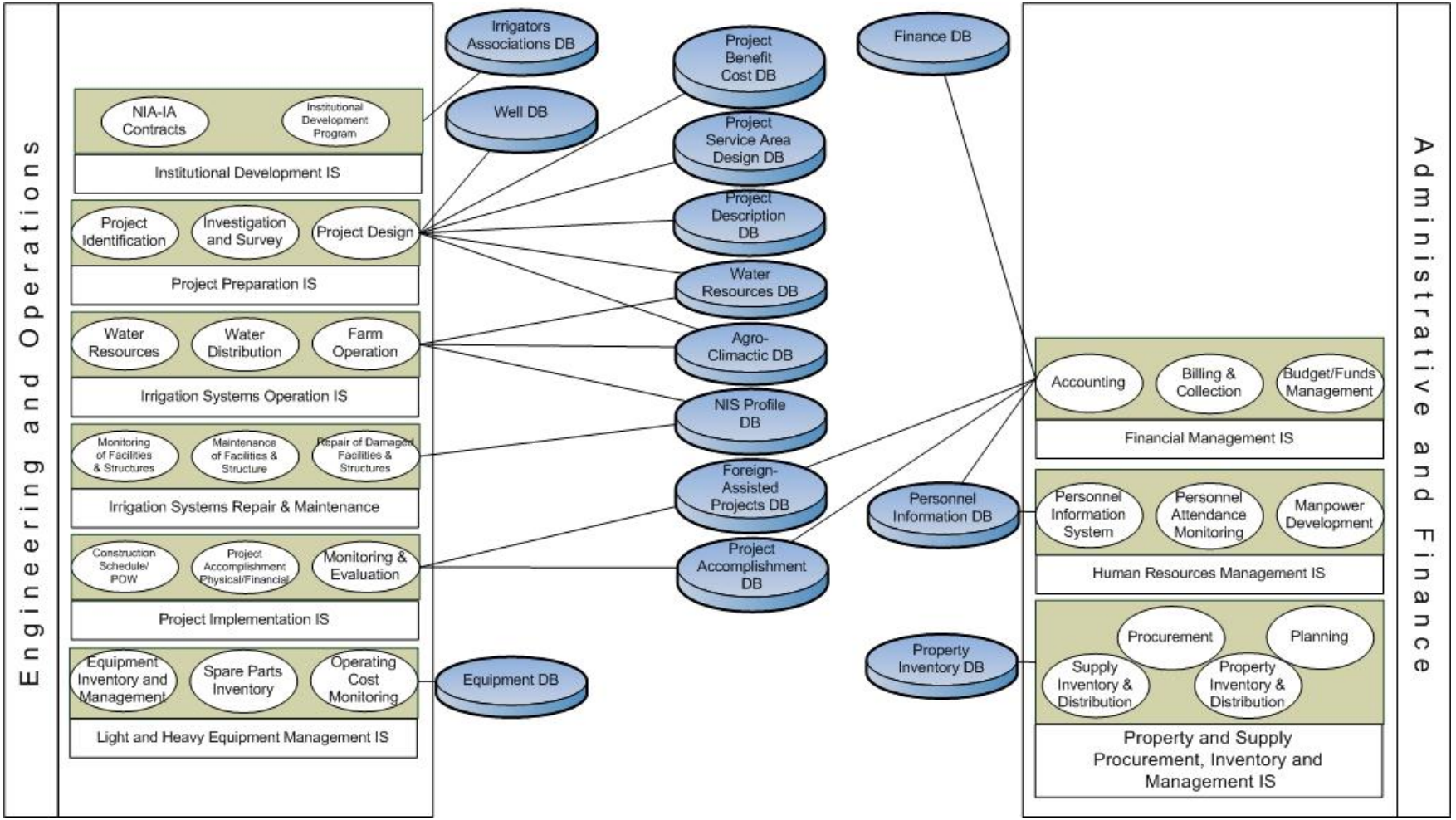
PART I. ORGANIZATIONAL PROFILE

E.2

MAJOR FUNCTIONS	CRITICAL MANAGEMENT/ OPERATING/ BUSINESS SYSTEMS	PROBLEMS	INTENDED USE OF ICT
Institutional Development	Organization and Development of Farmer-beneficiaries	Un-updated verification records of IAs boundaries, farm lots	Institutional Development IS: Use of GIS Database
Light and Heavy Equipment Management	Optimum Utilization of Resources	Delays in relocation of Equipment/motor vehicle when needed	Light and Heavy Equipment Management IS
Finance and Administrative Service	Accounting/Budget Management	Discrepancy in reported figures	Financial Management IS: Computerization of Accounting System.
	Personnel Management	Un-updated leave and personnel profile	Human Resources Management IS: Use of Biometric – Finger scan to be linked to Personnel Information System and Accounting System
	Procurement, Properties and Supplies Inventory and Monitoring	Difficulty in locating Property/slow processing and Issuance of Property Accountability	Property and Supply Procurement, and Inventory Management IS: Computerization of MRs and Office Equipment and Supplies Inventory

PART II. INFORMATION SYSTEMS STRATEGY

A. CONCEPTUAL FRAMEWORK FOR INFORMATION SYSTEMS (DIAGRAM OF IS INTERFACE)



PART II. INFORMATION SYSTEMS STRATEGY

B. DETAILED DESCRIPTION OF ICT PROJECTS (NONE)

NAME/TITLE OF ICT PROJECT	
BRIEF DESCRIPTION	
STATUS	
INFORMATION SYSTEMS COVERED	

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PRO-POSED
PROJECT PREPARATION IS	The IS aims to facilitate packaging of proposed irrigation project from conception to construction. It is made up of three sub-systems. 1. Project Identification IS – aims to facilitate in identifying and prioritizing project development opportunities. It will provide information like potential, needs, problems as well as constraints of proposed project. 2. Investigation and Survey IS – provides mapping, hydrology, geology and land resources and agro-socio-economics information. 3. Project Design IS – to provide information in determining the feasibility of the project. Data include water utilization, land use, environmental impact system/environmental impact assessment project facilities, and agricultural economy.	For Development	In-House Development/ out-sourcing		Net worked
PROJECT IMPLEMENTATION IS	This aims to monitor work progress of the on-going projects. It will facilitate vital information on engineering details and will help Project Managers particularly on the cost effectiveness to carry out the project. It is made up of three sub-systems.	For Development	In-house Development		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PRO-POSED
	1. Construction Schedule/ POW IS – aims to provide construction schedules and cost estimates of construction works. 2. Monitoring and Evaluation IS – provides monitoring and evaluation of progress of construction work. 3. Project Accomplishment Physical/Financial IS – provides monitoring of Physical and Financial Accomplishment of on-going projects.				
IRRIGATION SYSTEMS OPERATION IS	The IS aims to address three (3) aspects of irrigation systems operation, namely: a) Water Resources IS – The subsystem aims to provide efficient up – to - date information on water sources (availability and dependability) & hydrologic and agro-climatic data to enable effective assessment of water requirement, allocation and distribution and appropriate irrigation practices. b) Water Distribution IS - The Sub-system aims to facilitate planning and developing water delivery schedule and in evaluating water requirements and allocation in various parts of the service area.	For Development	In-house Development		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
	c) Farm Operation IS – The Sub-system aims to monitor farm operations such as farm management practices, availability of farm inputs, farming activities in various parts of the service area, crop harvested, yield, etc. These information are used for planning.				
IRRIGATION SYSTEMS REPAIR & MAINTENANCE IS	The system aims to monitor and maintain historical/ record of performance of various structures. It is made up of three sub-systems: 1. Monitoring of Facilities and Structure IS – the sub-system aims to monitor performance of various facilities and structures such as discharge rates and capacity of canals, flow control structures, utilization rate and operational efficiency. 2. Repair of Damaged Facilities and Structures IS – the sub-system would also monitor damaged facilities and structures for repair or rehabilitation 3. Maintenance of Facilities and Structure IS – the sub-system aims to maintain historical / record of various structures.	For Development	In house development/ out-sourcing		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
INSTITUTIONAL DEVELOPMENT IS	The system aims to monitor the various activities in the institutional development. It is made up of two sub-systems: NIA-IA Contracts IS – aims to monitor the implementation of Management Turnover Program (MTP) and the Irrigation Management Transfer (IMT) Program in the National Irrigation System (NIS). It also determines the number of IAs, members and area covered. Institutional Development Program IS – aims to monitor various activities in the development of Irrigators Associations: training needs, operations activities to support the Irrigation Management Transfer Program.	For development	In-house Development		Net worked
LIGHT AND HEAVY EQUIPMENT MANAGEMENT IS	The system aims to optimize utilization of light and heavy equipment including motor vehicles. The system is made up of three sub-systems: The Equipment Inventory and Management IS - provides data in the management, allocation and deployment of light and heavy equipment including motor vehicles. The Operating Cost Monitoring IS - monitors the operation and maintenance cost of the equipment and repair history.	For Enhancement For Enhancement	In-house Development In-house Development		Net worked Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
	The Spare Parts Inventory IS - also integrated to facilitate procurement of spare parts vital to the repair of equipment. The sub-system also monitor fast moving spare parts and spare parts in stock for efficient and effective procurement system.	For Enhancement	In-house Development		Net worked
FINANCIAL MANAGEMENT IS	This system shall manage the different stages of financial function of NIA to include budgeting, accounting, funds monitoring, and Billing and Collection to strengthen the competence of NIA. It is made up of the following sub-systems:				
	Accounting IS – This system shall automate and consolidate transactions and summary information coming from all the different operating units. It shall also capture all disbursements made by the units and generate reports on all accounting transactions such as Journals, Ledgers, Trial Balance and Financial Statements.	For Development	In-house/out sourcing		Net worked
	Budget/Funds Management IS – aims to increase the effectiveness of budgetary system a management tool for planning investment and programming, directing, controlling, and evaluating financial operation of the agency.	For Development	In-house/out sourcing		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
	It monitors and determines actual expenditures as against project accomplishment for evaluation purposes. Billing and Collection IS – aims to improve the billing and collection process. It is composed of the following five (5) modules: 1. Irrigation Service Fee (ISF) Billing and Collection System 2. Light and Heavy Equipment Rental 3. Communal Irrigation System (CIS) Amortization 4. Pump Amortization 5. Other Accounts	For Development Developed and Installed in all NIS For Enhancement For Development For Development For Development For Development	In-house/outsourcing In-house Developed In-house In-house In-house In-house	Stand-alone	Net worked Net Worked Net Worked Net Worked Net Worked Net worked
HUMAN RESOURCES MANAGEMENT IS	This system shall facilitate processing of all transactions within the Administrative Office such as maintaining and managing plantilla positions and 201 files, process and manage leave applications and leave credits, identify necessary training needs, etc. Personnel Information System (PIS) – The IS aims to provide efficient up-to-date information on	For Development	In-house/outsourcing		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
	employees identification and family background, education, skills, training, employment history, service records, examinations passed, awards, etc.				
	Personnel Attendance Monitoring IS – The sub-system aims to monitor employee attendance, undertime, tardiness and earned leaves. The system facilitates the keeping of records of attendance and facilitate computation of earned leaves.	For Development	In-house/out sourcing		Net worked
	Manpower Development System – The sub-system aims to facilitate the planning, developing, coordinating and implementing a comprehensive human resource development program thru maintenance of training needs database of all units.	For Development	In-house		Net worked
PROPERTY AND SUPPLY PROCUREMENT, INVENTORY AND MANAGEMENT IS	The system intends to be fully integrated with Personnel IS and Financial Management IS. It will support the following sub-systems:				
	Planning sub-systems aims to provide tools to generate the Annual Procurement Plan (APP) by Department and Agency total.	Under Development	In-house		Net worked
	- able to consolidate work and financial program.	Under Development	In-house		Net worked
	Procurement Sub-system intends to provide functionalities as follows:				

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
	- Able to consolidate list of procurement per department per month - Provide facility to capture requirements by requisitioning department and generation of Purchase Request (PR), Purchase Order (PO), etc. - Able to select mode of Procurement - Capable of generation of Abstract of Bids - Provide tracking PRs and POs - Provide report generation and logical query facilities - Provide management control facilities to check requisition vs APP and consumption vs APP - Support type of purchases such as regular purchase (canvassing, sealed bids, public bidding) and emergency purchase).				
	Supply Inventory and Distribution Sub-system intends to provide major functionalities as follows: - Maintain a flexible supplies table/database - Allow immediate access to supplies table/ database - Provide data capture facilities for stock receipts and issuances - Monitor stock levels and status - Capable of generation of Abstract of Bids - Includes the processes such conduct of periodic /annual inventory, stock disposal, stock transfer	Under Development	In-house		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

C. DETAILED DESCRIPTION OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM/ SUB-SYSTEM	DESCRIPTION	STATUS	DEVELOPMENT STRATEGY	COMPUTING SCHEME	
				EXISTING	PROPOSED
	- Provide facility for generation of forms and reports such as Distribution List, Inventory List, etc. Property Inventory and Distribution Sub-system intends to provide major functionalities as follows: - Maintain a flexible assets table - Allows automatic creation of assets database directly from purchase orders - With automated tracking of receipts and issuance - Provide automatic generation of labels - Provides accurate property and office equipment inventory - Allows immediate access to asset information - Allows automated tracking of equipment and other properties for disposal - Use bar coding - With automatic periodic generation of the following reports: ▪ Report of waste materials ▪ Inventory and inspection report of unserviceable property ▪ Inventory of equipment ▪ Equipment Ledger ▪ Memorandum Receipt ▪ Other related reports	Under Development	In-house		Net worked

PART II. INFORMATION SYSTEMS STRATEGY

D. IMPACT AND LINKAGES OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM	IMPACT		LINKAGES		
			INTERNAL		EXTERNAL
	STRATEGIC THRUSTS AND PROGRAMS ADDRESSED	BENEFITS	OWNER	USER/S	USER/S
Project Preparation IS	Focus on small-scale, labor intensive locally funded projects. Pursue big projects funded by multilateral and bilateral institutions.	Facilitation of data and information to address requirements of funding agencies	PPD – Engineering Department	Engineering Department CORPLAN, EXECOM BOD Engineering & Operations Sector	DA NEDA
Project Implementation IS	Prioritize implementation of projects in economically depressed areas, particularly in Mindanao. Accelerate completion of on-going projects.	Timely comp-letion of on-going project; generate jobs in rural areas	CMD – Engineering Department SMD – Operations Department IEC – Operations Department	Engineering Department CORPLAN, EXECOM BOD Engineering & Operations Sector	Office of the President, DBM DA NEDA
Irrigation Systems Operation IS	Rehabilitate existing irrigation systems. Rehabilitate, protect and manage watersheds of irrigation systems.	Better control on the management of watersheds of irrigation systems for sustainable food production	SMD – Operations Department	Operations Department Irrigation System Offices, RIO/ Engineering & Operation Sector CORPLAN EXECOM	DA, Office of the President
Irrigation Systems Repair and Maintenance IS	Improve or upgrade canal systems, drainage systems, flood protection works and farm-to-market roads	More precise and efficient collection of data on operation and maintenance of NIS	SMD – Operations Department	Operations Department Irrigation System Offices, RIO/ Engineering & Operation Sector CORPLAN	DA, DBM

PART II. INFORMATION SYSTEMS STRATEGY

D. IMPACT AND LINKAGES OF INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEM	IMPACT		LINKAGES		
			INTERNAL		EXTERNAL
	STRATEGIC THRUSTS AND PROGRAMS ADDRESSED	BENEFITS	OWNER	USER/S	USER/S
Institutional Development IS	Build up capacity to promote local government unit participation in irrigation development	Speedy access to information relating to participation of farmer beneficiary in irrigation management.	IDD – Operations Department	Operations Department CORPLAN IMO/RIO Engineering & Operation Sector	DA NCIA
Light and Heavy Equipment Management IS	Improve monitoring and evaluation of equipment repairs, maintenance and utilization	Timely availability of equipment information with regards to status of needed equipment in project implementation, repair and rehabilitation of NIS.	EMD - Operations Department	Operations Department CORPLAN PPD/EMD IMO/RIO Engineering & Operation Division	Private Contractors LGU
Financial Management IS	Intensify revenue generation by maximizing collection from existing source of income and tap other sources of income.	Promote transparency in the management of funds.	Accounting Division – Financial Management Department Cash Division – Financial Management Department	CORPLAN Project Offices RIO/IMO Engineering & Operation Finance & Administrative All Sectors	DBM DOF
Human Resources Management IS	Evolve a lean strong, well trained and sustainable organization.	Efficient, timely and accurate generation of reports. Accurate and well organized payroll and attendance monitoring	HRD – Administrative Department	CORPLAN, IAS RIO Project Offices Finance & Administrative Sector All Sectors	CSC
Property and Supply Procurement, Inventory and Management IS	Sustain operation and maintenance of National Irrigation Systems	Cost reduction, systematic inventory and procurement of supplies and properties.	PPD – Administrative Department	All Department/ units	Procurement Services, Private Suppliers

PART II. INFORMATION SYSTEMS STRATEGY

E. DATABASES REQUIRED

NAME OF DATABASE	GENERAL CONTENTS/ DESCRIPTION	STATUS	INFORMATION SYSTEMS SERVED	DATA ARCHIVING STORAGE/ MEDIA
NIS PROFILE	Name of System, Region/Province; Towns/ Province Served, Source of Water Supply, Approved Water Rights, Completion Date, Original Construction Cost, last Date of Rehabilitation, Current Status, Firmed-up Service Area, Designed Area, Potential Area, No. of Land Owners, no. of Farmers Served, Average Farm Size, No. of Lots, Diversion Type, Diversion Capacity, Length of Main Canal, Length of Laterals, No. of Turnouts, Length of Service Roads, Length of Access Roads, Drainage Capacity, Farm ditch Density, Climatic Condition, Average Annual Rainfall, main Crops, Irrigated Area, Benefited Area, Average Yield	For Update	Irrigation Systems Operation IS; Irrigation Systems Repair and Maintenance IS	CD/External Drive
PROJECT DESCRIPTION DB	Name of Project, Location, Present irrigated/rainfed cropped area for wet and dry, Proposed Service Area for dry and wet season, Engineering Data, No. of Beneficiaries	For Conversion	Project Preparation IS	CD/External Drive
PROJECT BENEFIT COST DB	Detailed items of work cost, Total Project Cost, Project Benefits – Annual Palay Production, Value of Production, Annual net incremental benefit and benefit build-up period in years, Estimated O&M cost per hectare, Internal Rate of Return	For Conversion	Project Preparation IS	CD/External Drive
PROJECT SERVICE AREA DESIGN DB	Potential Irrigable Area, Arable Land, Land Classification, Non-Arable Land, Location and Area of Existing National, Communal and Private Irrigation Systems within or adjacent to the Proposed Irrigable Area, Recommended Operating Water Surface Elevation at Intake, Prevailing Cost of Construction Materials at Project Area	For Conversion	Project Preparation IS	CD/External Drive

PART II. INFORMATION SYSTEMS STRATEGY

E. DATABASES REQUIRED

NAME OF DATABASE	GENERAL CONTENTS/ DESCRIPTION	STATUS	INFORMATION SYSTEMS SERVED	DATA ARCHIVING STORAGE/ MEDIA
WATER RESOURCES DB	Name of River, Location of Proposed Diversion Point, Location of Stream Gauging Station, Available Stream flows and/or discharge measurement, Estimated monthly discharges – minimum, maximum and monthly mean, Rainfall Station, Evaporation Station and other observed data, name of existing system and water rights, Land Resources, Land Classification, Soil Type, Moisture holding capacity, Drainability	For Conversion	Project Preparation IS; Irrigation Systems Operation IS	CD/External Drive
AGRO-CLIMATIC DB	Rainfall, Temperature, Evaporation, Wind Velocity, Sunshine Duration	For Build-up	Project Preparation IS; Irrigation Systems Operation IS	CD/External Drive
PROJECT ACCOMPLISH-MENT DB	Name of Project Date of Evaluation Physical Accomplishment: Current Year Status – Mode, Force Account, Works, Contract Work, Total Overall Status – Mode, Force, Acct., Works, Contract Work, Total Financial Accomplishment: Estimated Cost particulars – POW in %, Amount Expenditures – Particulars, Current Year, Overall Status Field Funding – Particulars, Amount Generated Area–Particulars, Service Area, Problems/Constraints Project Component: Direct Cost – Contract works, Force Account Works, Total Indirect Cost – GESA, Agri-institu tional development, consulting services, procurement by govern-ment, physical contingencies, price escalation, etc.	For Conversion	Project Implementation IS; Financial Management IS	CD/External Drive

PART II. INFORMATION SYSTEMS STRATEGY

E. DATABASES REQUIRED

NAME OF DATABASE	GENERAL CONTENTS/ DESCRIPTION	STATUS	INFORMATION SYSTEMS SERVED	DATA ARCHIVING STORAGE/ MEDIA
FOREIGN-ASSISTED PROJECTS DB	Name of Project Location/Coverage Loan Number Amount of Loan: Total, Used, Canceled Project Cost: Estimate, Actual Effectivity Date Loan Closing Date: Original, Actual Date Signed Rate of Interest Terms Service Area: Design, Actual Target Beneficiaries: No. Date Stated Completion Date: Original, Actual	For Conversion	Project Implementation IS; Financial management IS	CD/External Drive
WELL DB	Location, Strata-Log, Resistivity Log, Construction Data, Water Level Data, Discharge History, Water Quality	For Conversion	Project Preparation IS	CD/External Drive
IRRIGATORS ASSOCIATIONS DB	Name of IA, Date organized/ registered, List of Members, Area covered, O&M Contract, Articles of Incorporation and By-Laws	For Conversion	Institutional Development IS	CD/External Drive
EQUIPMENT DB	Property No., Type Code, Location Code, Project Code, Condition, Serial No., Make, Model, Capacity Code, Capacity Description, Date of Acquisition, Life, Cost of Acquisition, Engine Make, Engine Model, Engine Serial No.	For Update	Light and Heavy Equipment Mgt IS	CD/External Drive
FINANCE DB	It will contain Disbursement Voucher, Agency Budget Matrix, Allotment and Obligations Slips, Registry of Allotments and Obligations, Special Allotment Release Order, Official Receipts, Order of Payments, Deposit Slips and Report of Collections and Deposits.	For Conversion/ Build-up	Financial Management IS	CD/External Drive

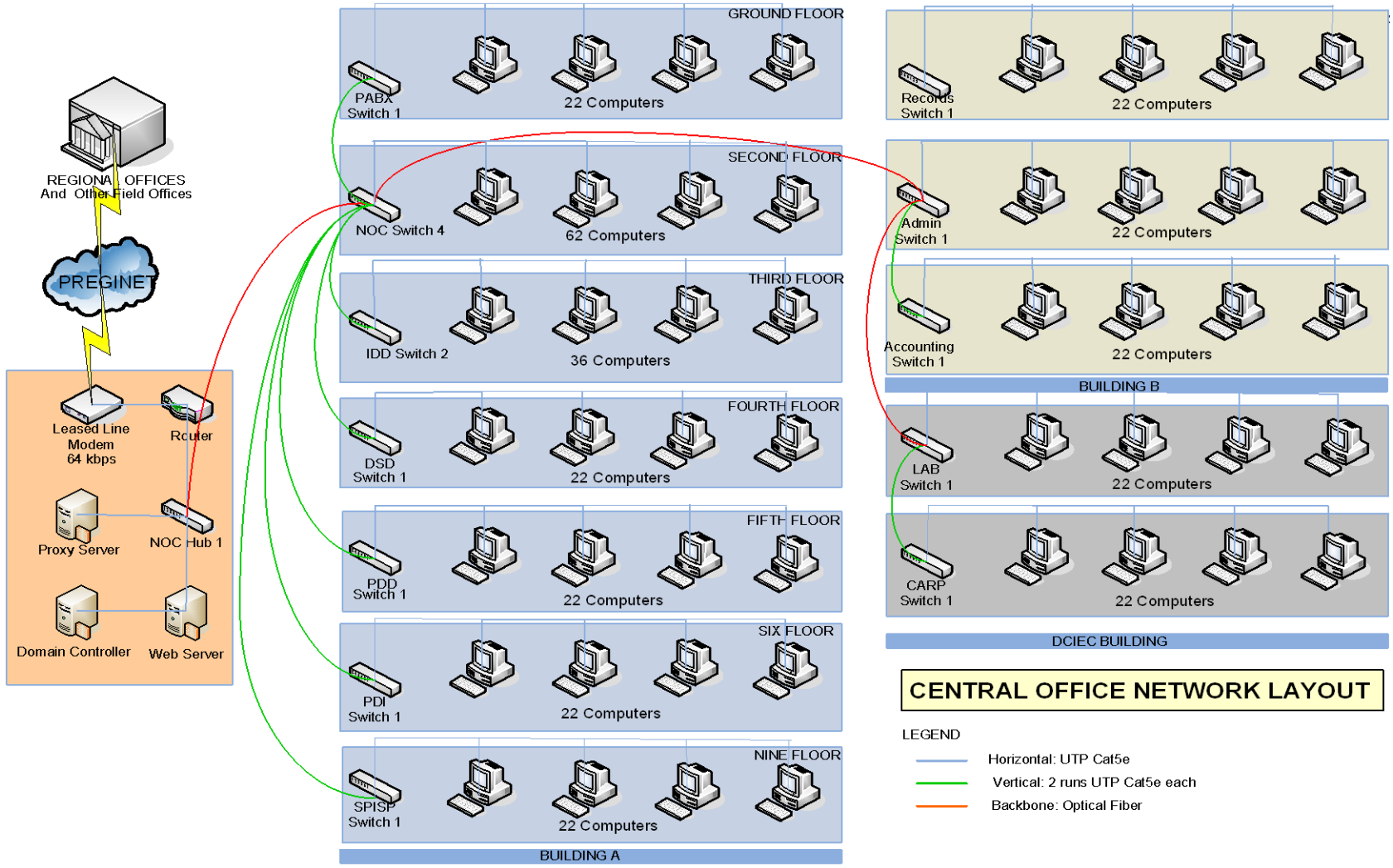
PART II. INFORMATION SYSTEMS STRATEGY

E. DATABASES REQUIRED

NAME OF DATABASE	GENERAL CONTENTS/ DESCRIPTION	STATUS	INFORMATION SYSTEMS SERVED	DATA ARCHIVING STORAGE/ MEDIA
PERSONNEL INFORMATION DB	It will include Personnel Information Family and Educational Background, Eligibility, Service Record, Trainings, Special Skills/Hobbies and other related information.	For Conversion	Human Resources Mgt IS Financial Management IS	CD/External Drive
PROPERTY INVENTORY DB	Information about a specific equipment or property which includes data about the equipment's Property Number, Current User as well as history of previous users, Acquisition Price and date of acquisition, Description and other additional details about the equipment.	For Conversion	Property and Supply Procurement and Inventory Management IS	CD/External Drive

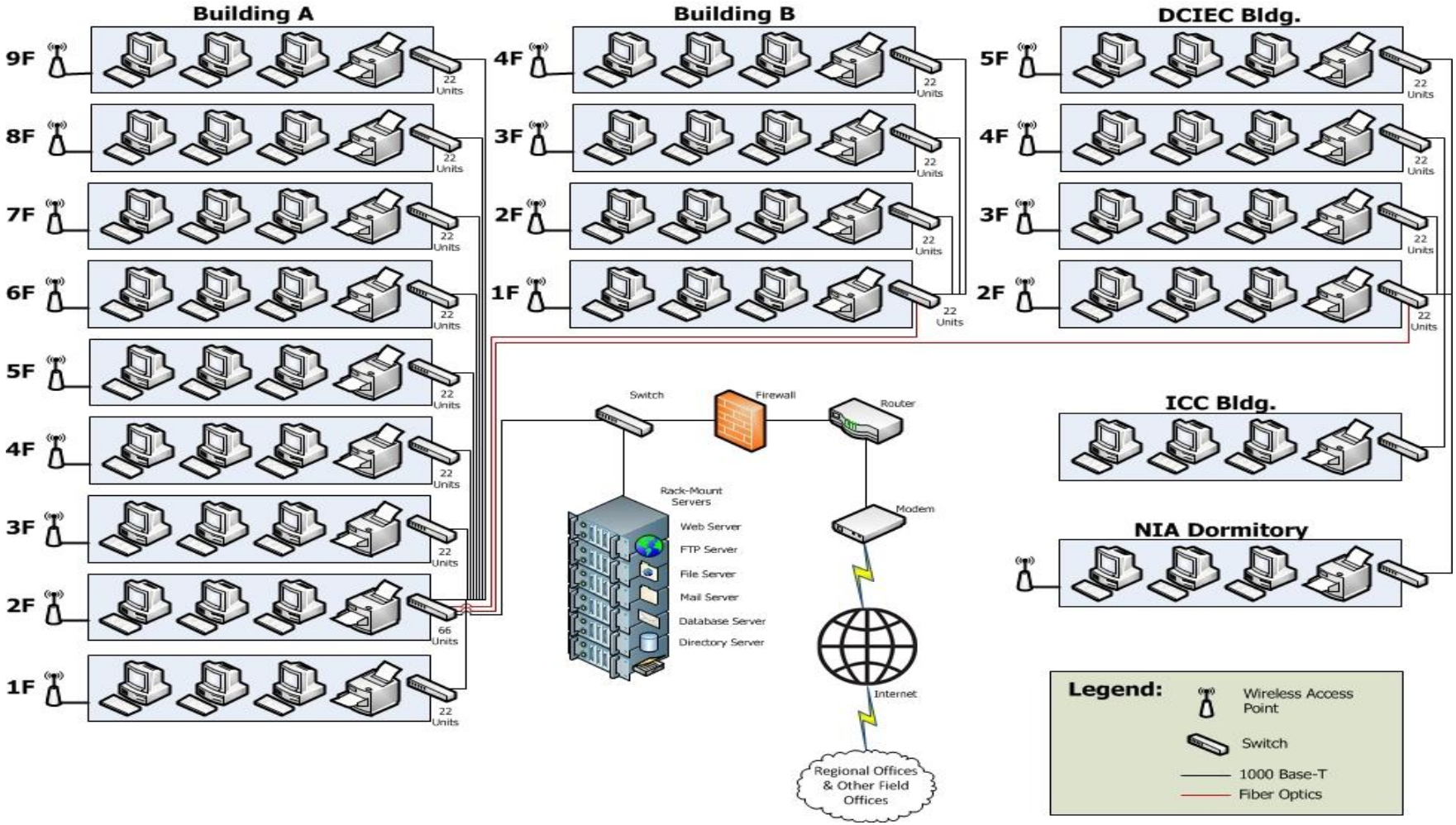
PART II. INFORMATION SYSTEMS STRATEGY

F1. EXISTING NETWORK LAYOUT



PART II. INFORMATION SYSTEMS STRATEGY

F2. PROPOSED NETWORK LAYOUT



PART III. INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) SOLUTIONS

A. ICT SOLUTIONS OF THE INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEMS	ICT SOLUTIONS	
	EXISTING	PROPOSED
Project Preparation IS		Computerized application systems
Project Implementation IS		Development of the System in the NIA Intranet
Irrigation Systems Operation IS		Computerized Application Systems Processing to run in stand alone PCs for the use of the field offices and networked application for central office GIS
Irrigation Systems Repair and Maintenance IS		Computerized Application Systems Processing to run in stand alone PCs for the use of the field offices and networked application for central office
Institutional Development IS		Conversion to databases for network development
Light and Heavy Equipment Management IS		Enhancement of the IS to run on the NIA network

PART III. INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) SOLUTIONS

A. ICT SOLUTIONS OF THE INFORMATION SYSTEMS

NAME OF INFORMATION SYSTEMS	ICT SOLUTIONS	
	EXISTING	PROPOSED
Financial Management IS		Full implementation for Operationalization of the Program for Computerization of the Billing and Collection by 2013 on stand alone PCs Conversion to databases and development of computerized application systems
Human Resources Management IS	Manual/use of Biometric Finger Scan for data capture	Biometric
Property and Supply Procurement, Inventory and Management IS		Conversion to databases and development of computerized application systems

PART III. INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SOLUTIONS

B. ICT STRATEGY FOR PUBLIC ACCESS (NARRATIVE)

In compliance with E-Commerce Law and the directive of the President to be at least in Stage One of the UN-ASPA Five Stages of the e-Government by June 2002. The NIA official Website was launched in August 2002. The agency's Website serves as the source of basic public information on irrigation development in the country. The NIA Website address is **www.nia.gov.ph**. The Website is at Stage Three of the UN-ASPA Five Stages of e-Government.

The Website would provide useful and timely information to the agency's farmer beneficiaries, LGUs, other government offices and general public. Update is done quarterly or whenever necessary.

The Website has the following features/contents:

- Provides links to other government agencies
- Provides downloadable forms like PNC-ICID Membership, News Releases, Announcements, Advisories, others
- Provides information on irrigation and project developments
- Provides publications such as NIA Currents, Annual Report, Mid-Year and Year End Report, BSPP Primer, Training Manuals

Links to:

- NIA Consult Website
- PNC-ICID
- NCIA
- NIA Regional Office Website
- Government Portal

Requests for information/data on irrigation not found in the Website may be sent thru e-mail.

PART IV. RESOURCE REQUIREMENTS

A. ICT RESOURCE REQUIREMENTS

A.1. HARDWARE

ITEM	NUMBER OF UNITS				
	EXISTING	PROPOSED ACQUISITION			
		YEAR 1	YEAR 2	YEAR 3	TOTAL
SERVERS	14	2	1	2	5
QUAD CORE	25	-	-	-	-
CORE 2 DUO	366	-	-	-	-
DUAL CORE XEON	227	-	-	-	-
PENTIUM D	168	-	-	-	-
PENTIUM 1V	558	-	-	-	-
PENTIUM III	153	-	-	-	-
PENTIUM II	82	-	-	-	-
PENTIUM PRO & OTHER PC	195	-	-	-	-
LAPTOP/NOTEBOOK/MOBILE	466	92	5		97
PRINTERS					
- OFFICE JET ALL-IN-ONE	-	78	-	-	78
- DOT MATRIX	222	138	48	36	222
- DESKJET/INKJET/BUBBLE JET	414	88	15	-	103
- LASER JET	53	4	-	-	4
- WIDE FORMAT INKJET COLOR PRINTER	-	22	-	-	22
SCANNERS	63	8	3	2	13
REMOVABLE DISK DRIVE (PORTABLE)	76	15	9	-	24
MULTIMEDIA/LCD PROJECTOR	34	81	8	-	89
DIGITAL CAMERA	86	81	3	-	84
PLOTTER	2	-	-	-	-
UNINTERRUPTED POWER SUPPLY	390	-	-	-	-
AUTOMATIC VOLTAGE REGULATOR	620	-	-	-	-
i-SERIES PROCESSOR (DESKTOP)	-	326	20	-	346
EXTERNAL HARD DISK DRIVE (PORTABLE)	-	8	-	-	8
EXTERNAL USB POWERED OPTICAL DRIVE	-	5	-	-	5
UPS WITH BUILT-IN AVR 500VA	-	120	20	-	140
VIDEO CAMERA	-	81	-	-	81
TRIPOD PROJECTION SCREEN	-	81	-	-	81

PART IV. RESOURCE REQUIREMENTS

A.1.1. NETWORK AND TELECOMMUNICATIONS

ITEM	NUMBER OF UNITS				
	EXISTING	PROPOSED ACQUISITION			
		YEAR 1	YEAR 2	YEAR 3	TOTAL
Hubs and Switches	40	-	3	-	3
Router	38	-	-	-	-
Modem	215	-	-	-	-
Structured Cabling System @ Central Office	1	-	-	-	-
LAN Card	182	20	20	-	40
Structured Cabling Infrastructure: Gigabit connectivity without fibre with 10/100/1000 mbps Gigabit ports on Cat. 5 @ Central Office	-	-	-	1	1
E1 Domestic Leased Line (Central Office)	1	1	1	1	3
Internet Subscription (Regional Office)	-	1	1	1	3

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
NIA CENTRAL OFFICE			
Office of the Administrator – 1	Server	3	3
Sr. Deputy Administrator – 1	Quad Core	19	-
Deputy Administrator – 2	Core 2 Duo	53	-
Board of Directors – 1	Dual Core Xeon	32	-
Departments – 8	Pentium D	3	-
COA – 1	Pentium IV	51	-
Office of the Ombudsman - 1	Pentium III	27	-
	Pentium II	11	-
	Pentium Pro & other PCs	19	-
	Laptop/Notebook	22	6
	Dot Matrix Printer	33	4
	DeskJet/InkJet/BubbleJet Printer	69	7
	Laser Jet Printer	4	-
	Scanner	7	2
	Removable Disk Drive (Portable)	-	18
	Multimedia/LCD Projector	-	4
	Digital Camera	-	3
	Plotter	-	-
	Hubs and Switches	4	3
	Router	-	-
	Modem	-	-
	Structured Cabling System (10/100/1000) Structured Cabling Infrastructure	-	1
	LAN Card	182	40
	Uninterrupted Power Supply	38	-
	Automatic Voltage Regulator	56	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	2
	External USB Powered Optical Drive	-	5
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
NIA CENTRAL OFFICE - PMO PARTICIPATORY IRRIGATION DEVELOPMENT PROJECT			
	Server	-	2
	Quad Core	-	
	Core 2 Duo	2	-
	Dual Core Xeon	-	-
	Pentium D	-	-
	Pentium IV	3	-
	Pentium III	3	-
	Pentium II	2	-
	Pentium Pro & other PCs	1	-
	Laptop/Notebook	4	87
	Office Jet All-in-One	-	78
	Dot Matrix Printer	-	86
	DeskJet/Ink Jet/Bubble Jet Printer	-	88
	Laser Jet Printer	-	4
	Wide Format Ink Jet Color Printer	-	22
	Scanner	-	5
	Removable Disk Drive (Portable)	-	6
	Multimedia/LCD Projector	-	81
	Digital Camera	-	81
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	206
	External Hard Disk Drive (Portable)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	-
	Video Camera	-	81
	Tripod Projection Screen	-	81

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
NIA CENTRAL OFFICE – PMO	Quad Core	-	-
CARP-IC	Core 2 Duo	8	-
SPISP	Dual Core Xeon	2	-
SRIP	Pentium D	-	-
	Pentium IV	16	-
	Pentium III	1	-
	Pentium II	1	-
	Pentium Pro & other PCs	-	-
	Laptop/Notebook	8	4
	Dot Matrix Printer	-	4
	DeskJet/InkJet/BubbleJet Printer	-	8
	Laser Jet Printer	-	-
	Scanner	-	2
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	-	4
	Digital Camera	-	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	4
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	4

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
CAR	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 3	Core 2 Duo	6	-
	Dual Core Xeon	6	-
	Pentium D	-	-
	Pentium IV	38	-
	Pentium III	9	-
	Pentium II	2	-
	Pentium Pro & other PCs	2	-
	Laptop/Notebook	44	-
	Dot Matrix Printer	18	6
	DeskJet/InkJet/BubbleJet Printer	66	-
	Laser Jet Printer	23	-
	Scanner	7	-
	Removable Disk Drive (Portable)	18	-
	Multimedia/LCD Projector	7	-
	Digital Camera	16	-
	Plotter	-	-
	Hubs and Switches	2	-
	Router	2	-
	Modem	-	-
	Uninterrupted Power Supply	46	-
	Automatic Voltage Regulator	39	-
	i-Series Processor (Desktop Computer)	-	6
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	6

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 1	Server	-	-
Regional Irrigation Office – 1	Quad Core	3	-
Irrigation Management Office - 3	Core 2 Duo	18	-
	Dual Core Xeon	4	-
	Pentium D	20	-
	Pentium IV	1	-
	Pentium III	7	-
	Pentium II	4	-
	Pentium Pro & other PCs	9	-
	Laptop/Notebook	19	-
	Dot Matrix Printer	10	7
	DeskJet/InkJet/BubbleJet Printer	18	-
	Laser Jet Printer	1	-
	Scanner	3	-
	Removable Disk Drive (Portable)	3	-
	Multimedia/LCD Projector	4	-
	Digital Camera	9	-
	Plotter	-	-
	Hubs and Switches	2	-
	Router	2	-
	Modem	-	-
	Uninterrupted Power Supply	9	-
	Automatic Voltage Regulator	51	-
	i-Series processor (Desktop Computer)	-	7
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	7

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 2	Server	7	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 3	Core 2 Duo	21	-
	Dual Core Xeon	-	-
	Pentium D	8	-
	Pentium IV	20	-
	Pentium III	2	-
	Pentium II	3	-
	Pentium Pro & other PCs	-	-
	Laptop/Notebook	6	-
	Dot Matrix Printer	8	8
	DeskJet/InkJet/BubbleJet Printer	15	-
	Laser Jet Printer	-	-
	Scanner	6	-
	Removable Disk Drive (Portable)	39	-
	Multimedia/LCD Projector	1	-
	Digital Camera	1	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	2	-
	Modem	-	-
	Uninterrupted Power Supply	2	-
	Automatic Voltage Regulator	30	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
MRIIS	Server	1	-
Regional Irrigation Office – 1	Quad Core	1	-
Irrigation Management Office - 5	Core 2 Duo	20	-
	Dual Core Xeon	18	-
	Pentium D	9	-
	Pentium IV	22	-
	Pentium III	1	-
	Pentium II	-	-
	Pentium Pro & other PCs	2	-
	Laptop/Notebook	21	-
	Dot Matrix Printer	27	12
	DeskJet/InkJet/BubbleJet Printer	14	-
	Laser Jet Printer	2	-
	Scanner	3	-
	Removable Disk Drive (Portable)	2	-
	Multimedia/LCD Projector	2	-
	Digital Camera	5	-
	Plotter	-	-
	Hubs and Switches	4	-
	Router	7	-
	Modem	-	-
	Uninterrupted Power Supply	9	-
	Automatic Voltage Regulator	39	-
	i-Series processor (Desktop Computer)	-	12
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	12

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 3	Server	-	-
Regional Irrigation Office – 1	Quad Core	6	-
Irrigation Management Office - 3	Core 2 Duo	28	-
	Dual Core Xeon	5	-
	Pentium D	1	-
	Pentium IV	31	-
	Pentium III	5	-
	Pentium II	1	-
	Pentium Pro & other PCs	6	-
	Laptop/Notebook	31	-
	Dot Matrix Printer	-	9
	DeskJet/InkJet/BubbleJet Printer	-	-
	Laser Jet Printer	-	-
	Scanner	-	-
	Removable Disk Drive (Portable)	1	-
	Multimedia/LCD Projector	-	-
	Digital Camera	-	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	9
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	9

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
UPRIIS	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 5	Core 2 Duo	9	-
	Dual Core Xeon	30	-
	Pentium D	11	-
	Pentium IV	26	-
	Pentium III	8	-
	Pentium II	4	-
	Pentium Pro & other PCs	28	-
	Laptop/Notebook	17	-
	Dot Matrix Printer	-	16
	DeskJet/InkJet/BubbleJet Printer	-	-
	Laser Jet Printer	-	-
	Scanner	-	-
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	-	-
	Digital Camera	-	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	16
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	16

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 4	Server	-	-
Regional Irrigation Office – 1	Quad Core	2	-
Irrigation Management Office - 5	Core 2 Duo	19	-
	Dual Core Xeon	8	-
	Pentium D	11	-
	Pentium IV	32	-
	Pentium III	9	-
	Pentium II	1	-
	Pentium Pro & other PCs	21	-
	Laptop/Notebook	24	-
	Dot Matrix Printer	-	7
	DeskJet/InkJet/BubbleJet Printer	-	-
	Laser Jet Printer	-	-
	Scanner	-	1
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	-	-
	Digital Camera	-	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	7
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	7

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 5	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 2	Core 2 Duo	28	-
	Dual Core Xeon	20	-
	Pentium D	5	-
	Pentium IV	40	-
	Pentium III	6	-
	Pentium II	7	-
	Pentium Pro & other PCs	8	-
	Laptop/Notebook	42	-
	Dot Matrix Printer	13	8
	DeskJet/InkJet/BubbleJet Printer	17	-
	Laser Jet Printer	1	-
	Scanner	6	1
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	5	-
	Digital Camera	15	-
	Plotter	-	-
	Hubs and Switches	7	-
	Router		-
	Modem	-	-
	Uninterrupted Power Supply	42	-
	Automatic Voltage Regulator	45	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 6	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 4	Core 2 Duo	39	-
	Dual Core Xeon	2	-
	Pentium D	1	-
	Pentium IV	51	-
	Pentium III	17	-
	Pentium II	6	-
	Pentium Pro & other PCs	19	-
	Laptop/Notebook	43	-
	Dot Matrix Printer	-	9
	DeskJet/InkJet/BubbleJet Printer	-	-
	Laser Jet Printer	-	-
	Scanner	-	1
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	-	-
	Digital Camera	-	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	9
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	9

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 7	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office -	Core 2 Duo	4	-
	Dual Core Xeon	-	-
	Pentium D	-	-
	Pentium IV	4	-
	Pentium III	3	-
	Pentium II	-	-
	Pentium Pro & other PCs	-	-
	Laptop/Notebook	7	-
	Dot Matrix Printer	-	4
	DeskJet/InkJet/BubbleJet Printer	-	-
	Laser Jet Printer	-	-
	Scanner	-	-
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	-	-
	Digital Camera	-	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	-	-
	Automatic Voltage Regulator	-	-
	i-Series processor (Desktop Computer)	-	4
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	4

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 8	Server	1	-
Regional Irrigation Office – 1	Quad Core	2	-
Irrigation Management Office -	Core 2 Duo	19	-
	Dual Core Xeon	-	-
	Pentium D	37	-
	Pentium IV	49	-
	Pentium III	8	-
	Pentium II	2	-
	Pentium Pro & other PCs	1	-
	Laptop/Notebook	21	-
	Dot Matrix Printer	11	5
	DeskJet/InkJet/BubbleJet Printer	54	-
	Laser Jet Printer	9	-
	Scanner	2	-
	Removable Disk Drive (Portable)	4	-
	Multimedia/LCD Projector	4	-
	Digital Camera	4	-
	Plotter	-	-
	Hubs and Switches	4	-
	Router	4	-
	Modem	-	-
	Uninterrupted Power Supply	92	-
	Automatic Voltage Regulator	96	-
	i-Series processor (Desktop Computer)	-	5
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	5

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 9	Server	2	-
Regional Irrigation Office – 1	Quad Core	2	-
Irrigation Management Office - 2	Core 2 Duo	10	-
	Dual Core Xeon	11	-
	Pentium D	6	-
	Pentium IV	18	-
	Pentium III	7	-
	Pentium II	7	-
	Pentium Pro & other PCs	30	-
	Laptop/Notebook	24	-
	Dot Matrix Printer	22	5
	DeskJet/InkJet/BubbleJet Printer	29	-
	Laser Jet Printer	6	-
	Scanner	8	1
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	2	-
	Digital Camera	9	-
	Plotter	1	-
	Hubs and Switches	1	-
	Router	2	-
	Modem	-	-
	Uninterrupted Power Supply	75	-
	Automatic Voltage Regulator	77	-
	i-Series processor (Desktop Computer)	-	5
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	5

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 10	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office -2	Core 2 Duo	10	-
	Dual Core Xeon	25	-
	Pentium D	19	-
	Pentium IV	26	-
	Pentium III	5	-
	Pentium II	10	-
	Pentium Pro & other PCs	9	-
	Laptop/Notebook	22	-
	Dot Matrix Printer	31	8
	DeskJet/InkJet/BubbleJet Printer	44	-
	Laser Jet Printer	2	-
	Scanner	16	-
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	1	-
	Digital Camera	6	-
	Plotter	-	-
	Hubs and Switches	7	-
	Router	8	-
	Modem	-	-
	Uninterrupted Power Supply	18	-
	Automatic Voltage Regulator	60	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 11	Server	-	-
Regional Irrigation Office – 1	Quad Core	1	-
Irrigation Management Office - 3	Core 2 Duo	35	-
	Dual Core Xeon	-	-
	Pentium D	8	-
	Pentium IV	33	-
	Pentium III	2	-
	Pentium II	-	-
	Pentium Pro & other PCs	14	-
	Laptop/Notebook	18	-
	Dot Matrix Printer	36	8
	DeskJet/InkJet/BubbleJet Printer	19	-
	Laser Jet Printer	2	-
	Scanner	2	-
	Removable Disk Drive (Portable)	4	-
	Multimedia/LCD Projector	3	-
	Digital Camera	2	-
	Plotter	-	-
	Hubs and Switches	8	-
	Router	5	-
	Modem	-	-
	Uninterrupted Power Supply	41	-
	Automatic Voltage Regulator	52	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 12	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 4	Core 2 Duo	18	-
	Dual Core Xeon	16	-
	Pentium D	2	-
	Pentium IV	61	-
	Pentium III	21	-
	Pentium II	16	-
	Pentium Pro & other PCs	8	-
	Laptop/Notebook	40	-
	Dot Matrix Printer	3	8
	DeskJet/InkJet/BubbleJet Printer	3	-
	Laser Jet Printer	1	-
	Scanner	-	-
	Removable Disk Drive (Portable)	-	-
	Multimedia/LCD Projector	1	-
	Digital Camera	2	-
	Plotter	-	-
	Hubs and Switches	-	-
	Router	-	-
	Modem	-	-
	Uninterrupted Power Supply	3	-
	Automatic Voltage Regulator	2	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
REGION 13	Server	-	-
Regional Irrigation Office – 1	Quad Core	-	-
Irrigation Management Office - 3	Core 2 Duo	10	-
	Dual Core Xeon	-	-
	Pentium D	5	-
	Pentium IV	25	-
	Pentium III	3	-
	Pentium II	-	-
	Pentium Pro & other PCs	-	-
	Laptop/Notebook	27	-
	Dot Matrix Printer	4	8
	DeskJet/InkJet/BubbleJet Printer	16	-
	Laser Jet Printer	-	
	Scanner	1	-
	Removable Disk Drive (Portable)	2	-
	Multimedia/LCD Projector	2	-
	Digital Camera	6	-
	Plotter	1	-
	Hubs and Switches	-	-
	Router	2	-
	Modem	-	-
	Uninterrupted Power Supply	10	-
	Automatic Voltage Regulator	20	-
	i-Series processor (Desktop Computer)	-	8
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	8

PART IV. RESOURCE REQUIREMENTS

A.1.2. DEPLOYMENT OF ICT EQUIPMENT

NAME OF OFFICE/ ORGANIZATIONAL UNITS	I T E M	NUMBER OF UNITS	
		EXISTING	PROPOSED
PROJECTS	Server	-	-
BBMP	Quad Core	4	-
CMIPP	Core 2 Duo	24	-
ARIIP	Dual Core Xeon	65	-
	Pentium D	22	-
	Pentium IV	18	-
	Pentium III	12	-
	Pentium II	1	-
	Pentium Pro & other PCs	12	-
	Laptop/Notebook	26	-
	Dot Matrix Printer	6	-
	DeskJet/InkJet/BubbleJet Printer	50	-
	Laser Jet Printer	2	-
	Scanner	2	-
	Removable Disk Drive (Portable)	3	-
	Multimedia/LCD Projector	2	-
	Digital Camera	11	-
	Plotter	-	-
	Hubs and Switches	1	-
	Router	4	-
	Modem	-	-
	Uninterrupted Power Supply	5	-
	Automatic Voltage Regulator	53	-
	i-Series processor (Desktop Computer)	-	-
	External Optical Drive	-	-
	External USB Powered Optical Drive	-	-
	UPS with Built-in AVR 500VA	-	-

PART IV. RESOURCE REQUIREMENTS

A.2. SOFTWARE

ITEM	VER-SION	TYPE OF LICENSE	NUMBER OF LICENSES				
			EXIST-ING	PROPOSED ACQUISITION			
				YR 1	YR 2	YR 3	TOTAL
OPERATING SYSTEM							
- Windows Server 2008 R2	-	Network	-	2	1	-	3
- Windows 95/98/ME	-	Single	326	-	-	-	-
- Windows 2000	-	OEM	250	-	-	-	-
- Windows XP	-	OEM	214	-	-	-	-
- Windows 2000 Advance Server	-	Network	5	-	-	-	-
- Windows 2003 Server	-	Network	-	-	-	-	-
- Linux	-	Open	1	-	-	-	-
- Windows 7	-	Single	-	51	-	-	51
DEVELOPMENT LANGUAGES							
- Visual Basic 6	6	Single	1	-	-	-	-
- Visual Studio 2010 + MSDN Professional	Latest	Single	-	1	-	-	1
- Visual FoxPro	6	Single	1	-	-	-	-
- PHP	4.3.7	Open	1	-	-	-	-
- Apache	1.3	Open	1	-	-	-	-
- Crystal Report Developer	Latest	Single	-	1	-	-	1
NETWORK MANAGEMENT SOLUTION							
- MS Exchange Server 2000	-	Network	1	-	-	-	-
- BORG Chat	-	Open	1	-	-	-	-
ANTI-VIRUS							
- Kaspersky 2011	Ent.	Network	-	150	-	-	150
- Kaspersky 2012	Ent.	Network	-	-	150	-	150
- Kaspersky 2013	Ent.	Network	-	-	-	150	150
DBMS							
- MY SQL	-	Open	1	-	-	-	-
- MS SQL Server 2008 R2	STD	Network	-	1	-	-	1
- SQLyog Enterprise	Latest	Proprietory	-	1	-	-	1

PART IV. RESOURCE REQUIREMENTS

A.2. **SOFTWARE**

ITEM	VER-SION	TYPE OF LICENSE	NUMBER OF LICENSES				
			EXIST-ING	PROPOSED ACQUISITION			
				YR 1	YR 2	YR 3	TOTAL
SPECIAL SOLUTIONS							
- GIS Software	Latest	Single	-	1	-	-	1
- AUTOCAD	Latest	Single	-	1	-	-	1
SOFTWARE APPLICATION PACKAGES							
- MS OFFICE 2010	PROF	Single	-	108	-	-	108
- MS OFFICE 2007	-	Single	-	-	-	-	-
- MS OFFICE 2003	-	Single	-	-	-	-	-
- Adobe Acrobat	5	Single	1	-	-	-	-
- Adobe Flash Builder Premium	Latest	Single	-	1	-	-	1
- Adobe PageMaker	6.5+	Single	1	-	-	-	-
- Adobe Page Mill	-	OEM	1	-	-	-	-
- Macromedia MX	-	Single	-	-	-	-	-
- Adobe Dreamweaver CS	Latest	Proprietory	-	1	-	-	1
- Firewall	-	Single	-	1	-	-	1

PART IV. RESOURCE REQUIREMENTS

A.3. ICT SERVICES

T Y P E	EXISTING	PROPOSED		
		YEAR 1	YEAR 2	YEAR 3
Web Hosting	√			
Intranet Installation				
a. Leased Line Connection				
b. E1 Domestic Leased Line	√	√	√	√
c. Dial-up		√	√	√
Database Build-up				
a. Data Encoding	√	√	√	√
b. Data Conversion		√	√	√
Maintenance				
PC Trouble Shooting and Repair Services	√	√	√	√

PART IV. RESOURCE REQUIREMENTS

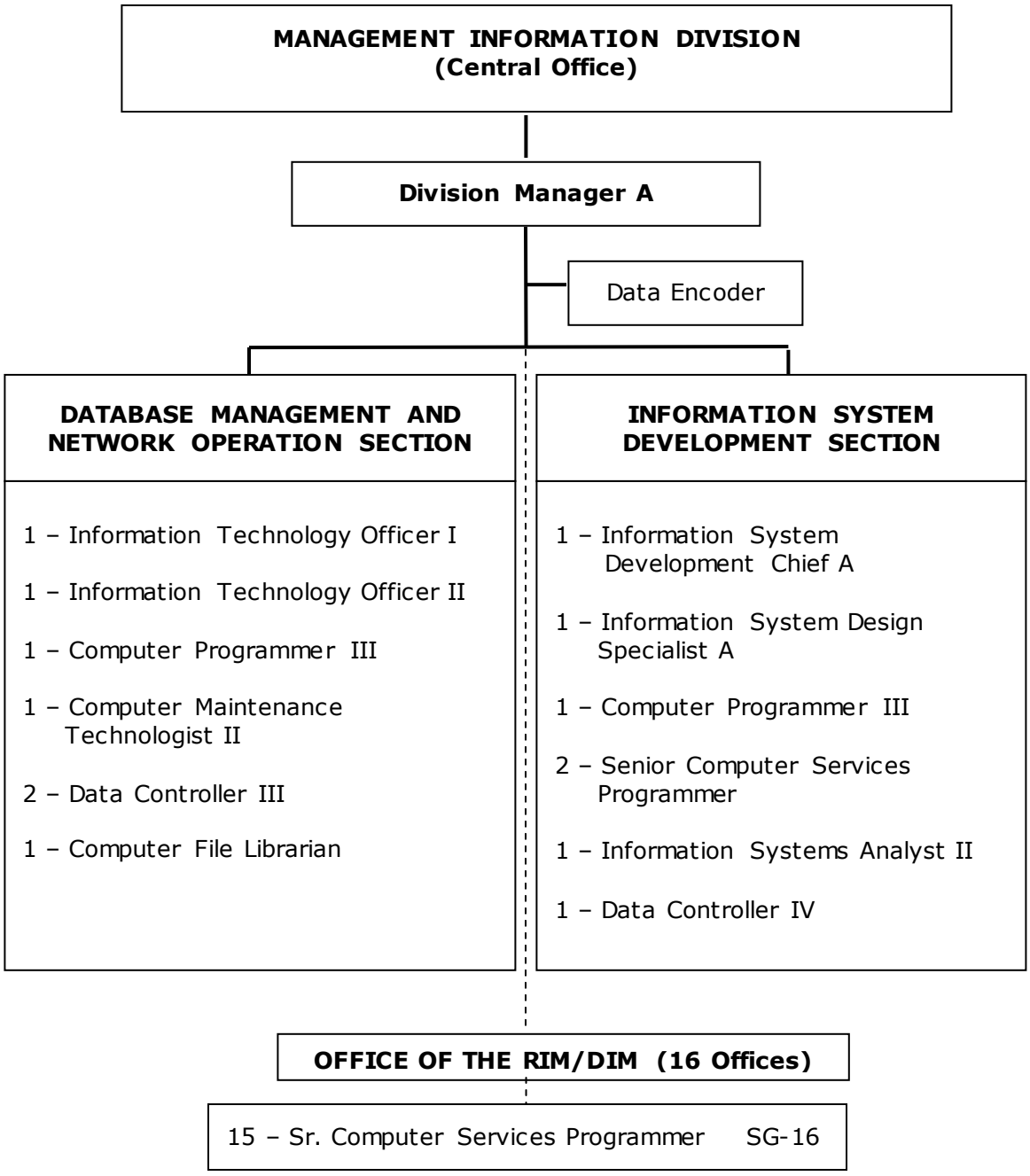
A.4. ICT MANPOWER AND ORGANIZATIONAL STRUCTURE

A.4.1 PLANTILLA POSITIONS, NUMBER OF EXISTING POSITONS

PLANTILLA POSITIONS	EMPLOYMENT STATUS	PLACE OF ASSIGNMENT	NO OF POSITIONS				
			EXISTING				PROPOSED ICT POSITIONS
			FILLEP-UP		UNFILLED		
			ICT	NON ICT	ICT	NON ICT	
CENTRAL OFFICE							
Division Manager	Permanent	MID/CORPLAN	1				
Information Technology Officer II	Permanent	MID/CORPLAN	1				
Information System Development Chief A	Permanent	MID/CORPLAN	1				
Information Technology Officer I	Permanent	MID/CORPLAN	1				
Information System Design Specialist A	Permanent	MID/CORPLAN	1				
Computer Programmer III	Permanent	MID/CORPLAN	1		1		1
Sr. Computer Services Programmer	Permanent	MID/CORPLAN	2				1
Information Systems Analyst II	Permanent	MID/CORPLAN	1				2
Computer Maintenance Technologist I	Permanent	MID/CORPLAN					2
Computer Maintenance Technologist II	Permanent	MID/CORPLAN	1				1
Computer Maintenance Technologist III	Permanent	MID/CORPLAN					1
Data Controller IV	Permanent	MID/CORPLAN	1				
Data Controller III	Permanent	MID/CORPLAN	2				1
Data Analyst-Controller	Permanent	MID/CORPLAN					1
Computer Librarian	Permanent	MID/CORPLAN			1		
Data Encoder	Permanent	MID/CORPLAN	1				
Senior Management Information Systems Researcher	Permanent	MID/CORPLAN					1
Data Management Chief A	Permanent	MID/CORPLAN					1
Information Systems Analyst III	Permanent	MID/CORPLAN					1
Supervising Data Analyst Controller	Permanent	MID/CORPLAN					1
REGIONAL ICT STAFF (16 OFFICES)							
Sr. Computer Services Programmer	Permanent	Regional Offices	12		3		1
Computer Maintenance Technologist II	Permanent	Regional Offices					16

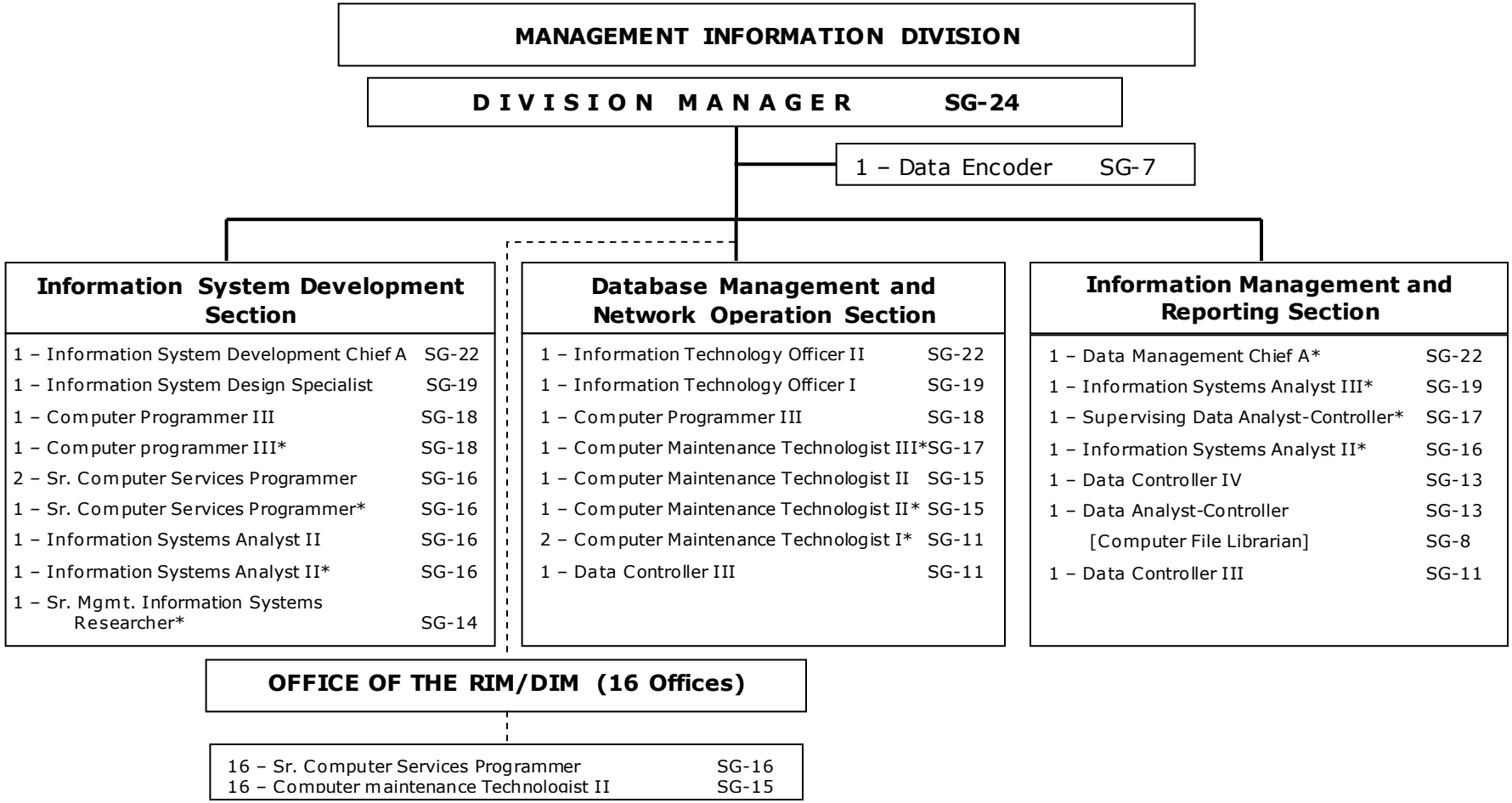
PART IV. RESOURCE REQUIREMENTS

A.4.2 **EXISTING ICT ORGANIZATIONAL STRUCTURE**



PART IV. RESOURCE REQUIREMENTS

A.4.3 PROPOSED ICT ORGANIZATIONAL STRUCTURE



* - New Position
[ ] - To be retitled

PART IV. RESOURCE REQUIREMENTS

A.4.3 PROPOSED ICT ORGANIZATIONAL STRUCTURE

A.4.3A STATEMENT OF FUNCTIONS

DATABASE MANAGEMENT AND NETWORK OPERATION SECTION

- Manages and maintains the agency's computer network and data communication facilities.
- Develops standards and procedures for databases access, recovery reorganization and backup.
- Provides services related to intranet content development, update, document sharing, access to corporate data and information, computer file library, backup and archiving.
- Operates information and communication technology infrastructure of the agency in accordance with established standards, procedures and schedules set in a cost effective manner.
- Sets up necessary infrastructure and measure to protect the ICT infrastructure against hackers, virus attacks and unauthorized access and breaches.
- Monitors performance of network, computers and databases, and conduct capacity planning if necessary.
- Conducts research and studies on the latest information and communication technology trends and recommends implementation to improve the agency's information technology services.
- Evaluates computer hardware/software requisition of all offices/units in terms of transportability of existing computerized systems, connectivity, cost, utilization, maintenance and latest trend in information and communication technology.
- Sets up procedures and guidelines on computer hardware usage/internet access, scheduling of users and jobs, use of supplies and materials.
- Conducts orientation/training of users on network use and access, data control procedures and database updates.
- Performs other related functions.

INFORMATION SYSTEM DEVELOPMENT SECTION

- Formulates, prepares and implements the information systems strategic plan of the agency in accordance with the corporate plan, strategies and policies of the agency.
- Conducts feasibility studies, evaluates implications, analyzes cost and effectiveness of proposed information technology application.
- Develops the technical design computerized information systems application in terms of databases, programs, procedures, input and output.
- Develops the computer program logic and undertake the coding of programs in accordance with the system design specifications.
- Maintains, monitors and evaluates operational computerized information systems applications to enhance the system and meet the changes in the environmental if needed.
- Develops and maintains needed management information system applications of the agency and other user agencies related to irrigation development.
- Develops and maintains the agency's websites.

PART IV. RESOURCE REQUIREMENTS

A.4.3 PROPOSED ICT ORGANIZATIONAL STRUCTURE

A.4.3A STATEMENT OF FUNCTIONS

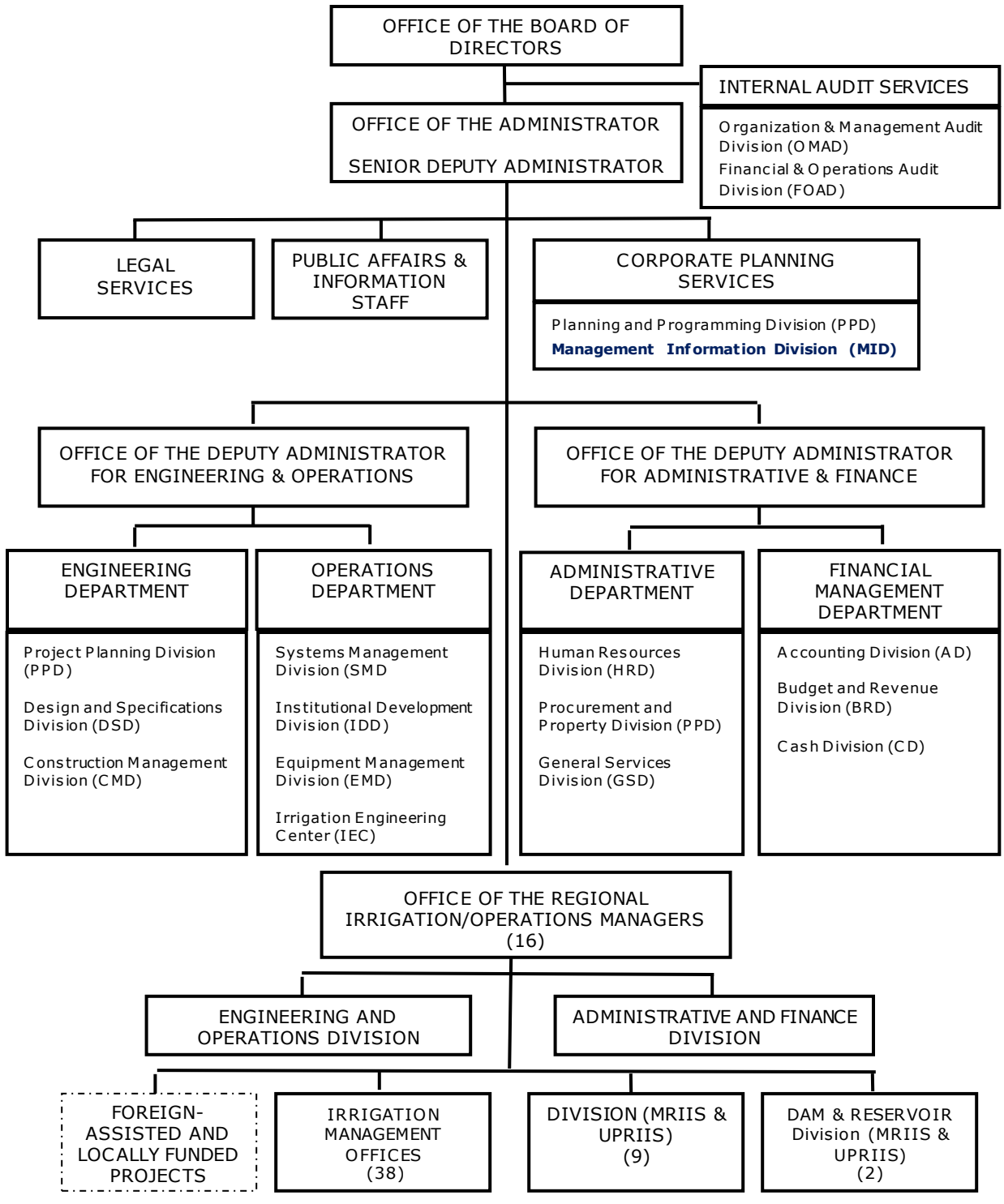
- Develops and prepares system documentation and users guide and manuals.
- Trains users and operating personnel on how to use and maintain computerized systems and information technology infrastructure in accordance with established designs, procedures and schedules.
- Performs other related functions.

INFORMATION MANAGEMENT AND REPORTING SECTION

- Coordinates all information and communication technology related activities at the central office and field offices.
- Collects data, manages agency's database websites, and conduct data analysis.
- Manages database for information/monitoring and reporting, research and other purposes.
- Ensures that the agency's connection to the DA-INTRANET is uninterrupted and secured at all times.
- Maintains appropriate linkages with other government agencies as well as private entities on matters related to irrigation research and information/monitoring and reporting.
- Performs other related functions.

PART IV. RESOURCE REQUIREMENTS

A.4.4 ICT ORGANIZATIONAL STRUCTURE IN THE AGENCY ORGANIZATIONAL CHART



PART IV. RESOURCE REQUIREMENTS

A.5 ICT TRAINING NEEDS

ICT COURSE		NO. OF TARGET PARTICIPANTS			
CLASSIFICATION	**TITLE/DESCRIPTION**	**YEAR 1**	**YEAR 2**	**YEAR 3**	**TOTAL**
ICT FOR USERS	Image Editing	-	20	-	20
	MS Access	-	15	-	15
ICT SPECIALIST COURSE	Visual Basic Programming	24	-	-	24
	Network Specialist Course 1	6	-	-	6
	Network Specialist Course 2	6	-	-	6
	Network Specialist Course 3	-	6	-	6
	Network Specialist Course 4	-	6	-	6
	Linux System Administration	-	2	2	4
	Data Communication	-	5	-	5
	Database Administration	-	3	2	5
	System Analysis and Design	-	3	3	6
	Object Oriented Analysis and Design using UML	-	-	3	3
	Developing Web Application using Java Server Pages (JSP)	-	-	3	3
	Java EE	-	-	2	2
	Java Script Programming	-	2	-	2
	Developing Web Animation using Flash	-	3	-	3
	Macromedia Flash Action Script	-	3	-	3
GEOGRAPHIC INFORMATION SYSTEMS	Introduction to GIS	-	16	-	16
	Comprehensive Arc View GIS Training	-	16	-	16
ICT FOR EXECUTIVES/ MANAGERS	Managing with Internet	-	30	-	30
	e-Commerce	-	5	-	5
	Information Systems Project Management	-	4	-	4
	e-Government	-	4	-	4
	Managing ICT Services	-	4	-	4
GRAND TOTAL		**36**	**147**	**15**	**198**

PART IV. RESOURCE REQUIREMENTS

B. **OTHER RESOURCE REQUIREMENTS (NONE)**

ITEM	EXISTING	PROPOSED			
		YEAR 1	YEAR 2	YEAR 3	TOTAL

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

A. ICT PROJECTS IMPLEMENTATION SCHEDULE (NONE)

B. INFORMATION SYSTEMS (IS) IMPLEMENTATION SCHEDULE

NAME OF INFORMATION SYSTEMS/ SUB-SYSTEMS OR MODULE	YEAR 1	YEAR 2	YEAR 3
1. **PROPERTY AND SUPPLY PROCUREMENT, INVENTORY AND MANAGEMENT IS**			
1.1 Property Inventory and Distribution IS	***Jan - Dec***		
1.2 Planning IS	***Jan - Dec***		
1.3 Procurement IS	***Jan - Dec***		
1.4 Supply Inventory & Distribution IS			
2. **FINANCIAL MANAGEMENT IS**			
2.1 Accounting IS	***Jan - Dec***	***Jan - Dec***	
2.2 Budgetary/Funds Management IS	***Jan - Dec***	***Jan - Dec***	
2.3 Billing and Collection IS			
3. **HUMAN RESOURCES MANAGEMENT IS**			
3.1 Personnel Information System	***Oct-Dec***	***Jan-June***	
3.2 Personnel Attendance Monitoring IS	***Oct-Dec***	***Jan - Dec***	
3.3 Manpower Development IS		***Jan –Dec***	
4. **INSTITUTIONAL DEVELOPMENT IS**			
4.1 Institutional Development Program IS		***Jan - Sept***	
4.2 NIA-IA Contracts IS		***Oct - Dec***	***Jan - Dec***
5. **PROJECT IMPLEMENTATION IS**			
5.1 Monitoring and Evaluation IS			
5.2 Construction Schedule/POW IS			
5.3 Project Accomplishment Physical Financial IS			

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

A. **ICT PROJECTS IMPLEMENTATION SCHEDULE (NONE)**

B. **INFORMATION SYSTEMS (IS) IMPLEMENTATION SCHEDULE**

NAME OF INFORMATION SYSTEMS/ SUB-SYSTEMS OR MODULE	YEAR 1	YEAR 2	YEAR 3
6. **PROJECT PREPARATION IS**			
6.1 Project Identification IS			
6.2 Investigation and Survey IS			
6.3 Project Design IS			
7. **IRRIGATION SYSTEMS OPERATION IS**			
7.1 Water Resources IS			
7.2 Farm Operation IS			
7.3 Water Distribution IS			
8. **IRRIGATION SYSTEMS REPAIR AND MAINTENANCE IS**			
8.1 Monitoring of Facilities and Structures IS			
8.2 Repair Damaged Facilities & Structures IS			
8.3 Maintenance Facilities and Structures IS			
9. **LIGHT AND HEAVY EQUIPMENT MANAGEMENT IS**			
9.1 Equipment Inventory IS			
9.2 Spare Parts Inventory IS			
9.3 Operating Cost Monitoring IS			

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

C. SUMMARY OF INVESTMENT

FINANCIAL REQUIREMENT

ACTIVITY	FINANCIAL REQUIREMENTS BY YEAR			TOTAL
	YEAR 1	YEAR 2	YEAR 3	
1. APPLICATION SYSTEMS DEVELOPMENT (Contracted Personnel Services)	**1,260,000.00**	**1,710,000.00**	**900,000.00**	**3,870,000.00**
• Procurement and Property Management IS	450,000.00	-	-	450,000.00
• Financial IS	360,000.00	360,000.00	-	720,000.00
• Human Resources IS	450,000.00	450,000.00	-	900,000.00
• Institutional Development IS	-	450,000.00	450,000.00	900,000.00
• Project Implementation IS	-	450,000.00	450,000.00	900,000.00
2. DATABASE DEVELOPMENT/ BUILD-UP	**1,025,000.00**	**1,400,000.00**	**-**	**2,425,000.00**
• NIS Profile	-	150,000.00	-	150,000.00
• Project Description DB	-	75,000.00	-	75,000.00
• Project Benefit Cost DB	-	150,000.00	-	150,000.00
• Project Service Area Design DB	-	150,000.00	-	150,000.00
• Water Resources DB	-	150,000.00	-	150,000.00
• Agro-Climatic DB	-	150,000.00	-	150,000.00
• Project Accomplishment DB	-	200,000.00	-	200,000.00
• Foreign-Assisted Projects DB	-	150,000.00	-	150,000.00
• WELL DB	-	75,000.00	-	75,000.00
• Irrigators Associations DB	-	75,000.00	-	75,000.00
• Equipment DB	-	75,000.00	-	75,000.00
• Finance DB	500,000.00	-	-	500,000.00
• Personnel Information DB	225,000.00	-	-	225,000.00
• Property Inventory DB	300,000.00	-	-	300,000.00
3. HARDWARE ACQUISITION	**67,079,100.00**	**6,373,400.00**	**3,179,000.00**	**76,631,500.00**
• Servers	1,440,000.00	720,000.00	1,440,000.00	3,600,000.00
• Personal Computers				
- Notebook/Laptop/Mobile	7,360,000.00	400,000.00	-	7,760,000.00
- i-Series Processor (Desktop-bundled with OS, MS Office)	28,688,000.00	1,760,000.00	-	30,448,000.00
• Printers				
- Dot Matrix	5,520,000.00	1,920,000.00	1,440,000.00	8,880,000.00
- Deskjet/Inkjet/Bubble Jet	704,000.00	120,000.00	-	824,000.00
- Laser Jet	80,000.00	-	-	80,000.00
- Office Jet All-in-One	4,290,000.00	-	-	4,290,000.00

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

C. SUMMARY OF INVESTMENT

FINANCIAL REQUIREMENT

ACTIVITY	FINANCIAL REQUIREMENTS BY YEAR			TOTAL
	YEAR 1	YEAR 2	YEAR 3	
- Wide Format Inkjet Color Printer	550,000.00	-	-	550,000.00
• Scanners	40,000.00	15,000.00	10,000.00	65,000.00
• Multimedia/LCD Projector	7,695,000.00	760,000.00	-	8,455,000.00
• Digital Camera	1,012,500.00	37,500.00	-	1,050,000.00
• Video Camera	2,835,000.00	-	-	2,835,000.00
• Tripod Projection Screen	486,000.00	-	-	486,000.00
• Removable Disk Drive (Portable)	52,500.00	31,500.00	-	84,000.00
• External USB Powered Optical Drive	20,000.00	-	-	20,000.00
• UPS with Built-in AVR 500VA	180,000.00	30,000.00	-	210,000.00
• External Hard Disk Drive (Portable)	28,000.00	-	-	28,000.00
• Contingencies (10%)	6,098,100.00	579,400.00	289,000.00	6,966,500.00
4. SOFTWARE ACQUISITION	**5,331,645.00**	**693,000.00**	**632,500.00**	**6,657,145.00**
• Operating Systems				
- Windows 7	532,950.00	-	-	532,950.00
- Windows Server 2008 R2	110,000.00	55,000.00	-	165,000.00
• Development Languages				
- Visual Studio 2010 Professional + MSDN	90,000.00	-	-	90,000.00
- Crystal Report Developer	70,000.00	-	-	70,000.00
• Database Management Software				
- MS SQL Server 2008 R2	45,000.00	-	-	45,000.00
- SQLyog Enterprise	20,000.00	-	-	20,000.00
• Network Management Solutions				
- Kaspersky 2011	350,000.00	-	-	350,000.00
- Kaspersky 2012	-	350,000.00	-	350,000.00
- Kaspersky 2013	-	-	350,000.00	350,000.00
- Firewall	375,000.00	225,000.00	225,000.00	825,000.00
• Web Page Development				
- Adobe Dreamweaver CS	104,000.00	-	-	104,000.00
- Adobe Flash Builder Premium	50,000.00	-	-	50,000.00
• Special Solutions				
- GIS Software	50,000.00	-	-	50,000.00
- Autocad	50,000.00	-	-	50,000.00
• Office Automation				
- OFFICE 2010	3,000,000.00	-	-	3,000,000.00
• Contingencies (10%)	484,695.00	63,000.00	57,500.00	605,195.00

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

C. SUMMARY OF INVESTMENT

FINANCIAL REQUIREMENT

ACTIVITY	FINANCIAL REQUIREMENTS BY YEAR			TOTAL
	YEAR 1	YEAR 2	YEAR 3	
5. NETWORK AND TELECOMMUNICATION	**1,045,000.00**	**1,207,800.00**	**8,730,700.00**	**10,983,500.00**
• Hubs and Switches	-	54,000.00	-	54,000.00
• LAN Card	10,000.00	10,000.00	-	20,000.00
• E1 Domestic Leased Line (C.O.)	400,000.00	440,000.00	484,000.00	1,324,000.00
• Internet Subscription (Regional Office)	540,000.00	594,000.00	653,000.00	1,787,000.00
• Structure Cabling Infrastructure: Gigabit Connectivity without fiber with 10/100/1000 mbps Gigabit ports on Cat 5	-	-	6,800,000.00	6,800,000.00
• Contingencies (10%)	95,000.00	109,800.00	793,700.00	998,500.00
6. FACILITIES/INSTALLATION (NONE)	**-**	**-**	**-**	**-**
7. TRAINING	**255,200.00**	**1,252,200.00**	**226,640.00**	**1,734,040.00**
• ICT for Users				
- Image Editing	-	180,000.00	-	180,000.00
- MS Access for Users	-	143,100.00	-	143,100.00
• ICT Specialist Course				
- Visual Basic Programming	200,000.00	-	-	200,000.00
- Network Specilaist Course 1	27,600.00	-	-	27,600.00
- Network Specialist Course 2	27,600.00	-	-	27,600.00
- Network Specialist Course 3	-	27,600.00	-	27,600.00
- Network Specialist Course 4	-	27,600.00	-	27,600.00
- Linux System Administration	-	24,000.00	24,000.00	48,000.00
- Data Communication	-	47,700.00	-	47,700.00
- Database Administration	-	45,000.00	45,000.00	90,000.00
- System Analysis and Design	-	57,600.00	57,600.00	115,200.00
- Object Oriented Analysis and Design using UML	-	-	57,600.00	57,600.00
- Developing Web Application using Java Server pages (JSP)	-	-	25,440.00	25,440.00
- Java EE	-	-	17,000.00	17,000.00
- Java Script Programming	-	12,720.00	-	12,720.00
- Developing Web Animation Using Flash	-	19,080.00	-	19,080.00
- Macromedia Flash Action Script	-	19,080.00	-	19,080.00

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

C. SUMMARY OF INVESTMENT

FINANCIAL REQUIREMENT

ACTIVITY	FINANCIAL REQUIREMENTS BY YEAR			TOTAL
	YEAR 1	YEAR 2	YEAR 3	
• Geographic Information Systems				
- Introduction to GIS	-	159,000.00	-	159,000.00
- Comprehensive ArcView GIS Training	-	318,000.00	-	318,000.00
• ICT for Executives/ Managers				
- Managing with Internet	-	95,400.00	-	95,400.00
- e-Commerce Seminar	-	8,480.00	-	8,480.00
- Information Systems Project Management	-	25,440.00	-	25,440.00
- e-Government	-	25,440.00	-	25,440.00
- Managing ICT Services	-	16,960.00	-	16,960.00
8. ICT SERVICES	**95,000.00**	**114,000.00**	**636,800.00**	**845,800.00**
- Hardware Maintenance Services	95,000.00	114,000.00	126,800.00	335,800.00
- Web Hosting (Free)	-	-	-	-
- Software Support Services (e-NGAS)	-	-	510,000.00	510,000.00
9. OTHER ICT EQUIPMENT	**-**	**-**	**-**	**-**
T O T A L	**76,090,945.00**	**12,750,400.00**	**14,305,640.00**	**103,146,985.00**