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14 June 2022

ATTY. RHOEL Z. MABAZZA
Officer-In-Charge and General Manager
National Development Company (NDC)
NDC Building, 116 Tordesillas Street, Salcedo Village
Makati City

Dear **Officer-In-Charge and General Manager Mabazza:**

Greetings from the Department of Information and Communications Technology!

This is in reference to the submitted Information Systems Strategic Plan (ISSP) of the **NDC** covering the period CY 2020 and CY 2021-2022 for review and evaluation of this Department.

NDC has been organized with powers and formal characteristics of a corporation,[1] and this Department is cognizant of the legal principle that corporate power and competence are lodged primarily with the Board of Directors. As embodied in the business judgment rule or doctrine, a resolution or transaction pursued within the corporate powers and business operations of the corporation and passed in good faith by the Board of Directors is valid and binding. The courts, much less administrative bodies, generally have no authority to review the same or substitute their own judgment.[2] Hence, the decision to adopt and pursue business systems and related ICT resources that bear directly upon NDC corporate operations, and the procurement activities ancillary thereto, appear to be within the management prerogative of the NDC governing board to which the courts and administrative agencies, such as this Department should defer.

It must be recalled that the objectives of existing IT harmonization frameworks relate to the streamlined process of review, approval, monitoring, and evaluation of ICT projects for the alignment of ICT planning, budgeting and spending, the interoperability of related systems, and sharing of databases, the visibility of national ICT expenditures, and the centralization of ICT procurement and overhead to achieve economies of scale.[3]

With the expansive, primary mandate and highly specialized role of the NDC in the provision of Government Services, this Office defers to the NDC in the measures and ICT resources it has identified to fully perform its mandates. **Thus, this Department takes note of the submission for CY 2020 and 2021 and endorses the NDC's ISSP for 2022.**

For the acquisition and implementation of ICT resources and projects, **NDC** shall ensure that all ICT resource procurements comply with the provisions of RA No. 9184, or the Government Procurement Reform Act, as amended, and its Implementing Rules and Regulations, and other applicable laws; and that its ISSP is current and updated.

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[1] *See Bacani v. Nacoco, 100 Phil. 468 (1956); Romualdez-Yap v. CSC, 225 SCRA 285, 294-295 (1993).*

[2] *See Montelibano v. Bacolod Murcia Milling Co., Inc., 5 SCRA 36 (1962); Philippine Stock Exchange v. Court of Appeals (CA), 281 SCRA 232 (1997).*

[3] See MO 237, s. 1989, *"Liberalizing the Existing Procedural Guidelines for the Acquisition and Use of Information Technology Resources in the Government"*; and EO 265, s. 2000, *"Approving and Adopting the Government Information Systems Plan (GISP) as Framework and Guide for All Computerization Efforts in Government."* Take note the GISP 2000 was updated through the eGovernment Master Plan (eGMP 2013-16), then Phil. Digital Strategy 2022, then by eGMP 2022, among others. Further, see DBM-ICTO-NEDA JMC 2012-01; DBM-ICTO-NEDA JMC 2014-01; and DICT-DBM-NEDA 2017-001, but now superseded by DBM-DICT-NEDA JMC 2021-01.

Further, please be informed that pursuant to Executive Order (EO) No. 893, s. 2010, all government online services shall be IPv6-compliant,[4] and government procurement of IPv4 equipment and software is prohibited.[5] These measures ensure interoperability[6] as well as conformity with the IPv6 migration plan, which all government agencies are mandated to include in their respective ISSPs under the provisions of EO 893, s. 2010.[7]

Finally, **NDC** is being advised that the Medium-Term Information and Communications Technology Harmonization Initiative (MITHI) has been wound up and the ISSP process will be streamlined. Thus, future ICT acquisition of government agencies will be expedited.

Rest assured of our continuing support in all your digitalization efforts.

Very truly yours,

Ma. Victoria G. Castro

Digitally signed by Castro Maria Victoria Cruz

MARIA VICTORIA C. CASTRO

Undersecretary for Digital Philippines/ Authorized Representative of OSEC

[4] §2(a), EO No. 893 s. 2010. *"Promoting the Deployment and Use of Internet Protocol Version 6 (IPV6)"*

[5] §2(b), ibid.

[6] §2(e), ibid.

[7] §2(c), ibid.

**Endorsement of the NDC ISSP 2021-2022*

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Website: www.ndc.gov.ph

INFORMATION SYSTEM STRATEGIC PLAN (ISSP)

For the Period 2020

National Development Company

Prepared by:

Signature: _____

Name in Print: LEW JORDEN R. JULVE

Position: INFORMATION TECHNOLOGY OFFICER

Tel. No: 840-4838 loc. 216 Fax No.: _____

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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

APPROVED BY:

MA. LOURDES F. REBUENO

General Manager

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DEFINITION OF TERMS:

The terms and phrases used in the ISSP Template shall be understood to mean as follows:

1. Agency – refers to any bureau, office, commission, authority, or instrumentality of the national government, including government-owned or–controlled corporations (GOCC), authorized by law or by their respective charters to contract for or undertake information and communications technology networks and databases, infrastructure or development projects.

2. Application System - refers to a group of related activities or processes designed to support a very specific function (e.g. Payroll System, Accounting System, etc.). It is referred to as "computer-based information system" prepared for the organization to process tasks that are unique to the particular needs or "tailor fit" for the particular operation.

3. Biometrics - the science and technology of measuring and statistically analyzing biological data. In ICT, it refers to technologies for measuring and analyzing human body characteristics such as fingerprints, eye retinas and irises, voice patterns, facial patterns and hand measurements, especially for the authentication of someone. ("What is?Com's Encyclopedia of technology Terms; Que Publishing 2002)

4. Business Process- a collection of business transactions between business partners and/or internal activities within one business. These transactions and/or activities together support the objective of the business process.

5. Computing Scheme - may be classified into two, namely stand-alone or independent systems, and networked systems.

A. Stand-alone or Independent Systems – a computing scenario wherein a computer system runs an application system or IS independent of other systems. The operating system, application program and database are resident in the same computer and not dependent on other computer systems.

B. Networked Systems – a computing scenario wherein computers, printers and other devices are linked together, allowing users to exchange and share information and resources. Networking is classified as follows:

B.1. Local Area Networking (LAN) – which is confined to moderate sized geographic areas such as one office, building, warehouse or campus. LAN can operate in different computing scenarios, namely:

B.1.1 Centralized - is a networking characterized by:

- One site supplying all information processing
- Information integrated at one location
- Development of software and control are integrated at one location

B.1.2. Centralized-Distributed – where the database in a central server is divided into disjoint (non-overlapping) partitions. Each partition (also called a fragment) is assigned to a particular remote site. In this scenario, the data is moved closer to local users and is more accessible.

B.1.3 Open Systems - can be ported across a wide range of systems and inter-operate with other application on local and remote systems and interact with other users, which facilitates user portability.

B.1.4 Client-Server – the most recent approach in networking wherein the logic of the application is divided between a front-end computer (called the client) and a back-end computer (called a server). The client generally provides and uses information while the server retrieves, selects, sorts, calculates, sends only needed data and manages the database.

B.2. Wide Area Networking (WAN) – which usually consists of a series of complex packet switches interconnected by communication lines and spans large geographical distances.

6. Content Management Software – a software used to manage the content of the website and consists of two (2) elements: the content management application (CMA) and the content delivery application (CDA). It enables one to add/or manipulate content on a website. (p.5 NCC Government Website Workshop Manual)

7. Data Warehouse - stores data from current and previous years that has been extracted from the various operational and management databases of an organization.

8. Data Archiving - an effort to avoid database chaos, intended to let organizations cull old data from their rational databases in a way that allows it to be easily restored if necessary. This could be in the form of: (1) print media like records, photos, films and negatives; (2) electronic media like videos, diskettes, magnetic tape, databases, CD-ROM and Web page snap shots. Archiving, in general, is a process that will ensure that information is preserved against technological obsolescence and physical damage. It will also help conserve very expensive resources and ensure that the research potential of the information is fully exploited. In the Philippines Statistical System (PSS), the adoption of archiving measures has been identified by the NSCB through Resolution No. 11 (s. 1997) as a key policy to ensure the preservation, systematic storage and retrieval of statistical data including records on their methodology, concepts and other metadata.

9. Database Management System (DBMS) - viewed as a system software package that controls the development, use, and maintenance of the databases of computer– using organizations.

10. Database (DB) - an organized group or set of inter-related information about a subject that can be processed, retrieved, analyzed and used in drawing conclusions and making decisions.

11. Firewall – a system designed to prevent unauthorized access to or from a network. Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially Intranets.

12. Hardware - the electronic and physical components, boards, peripherals and equipment that make up a computer system as distinguished from the programs (software) that tell these components what to do. It is the physical component consisting of the input devices, central processor, output devices and storage devices.

13. Hub – a central connecting device in a star topology network that allows the network to add workstations by extending the transmission signal. A central point of connection between media segment that organizes and transmits incoming signals to the other media segments.

14. Information and Communications Technology (ICT) - is the totality of the electronic means employed to systematically collect, process, store, present and share information to end-users in support of their activities. It consists of computer systems, office systems, consumer electronics and telecommunications technologies, as well as networked information infrastructure the components of which include the telephone system, the Internet, fax machines, computers and its accompanying methodologies, processes, rules and conventions. A combination of computer technology, microelectronics applications, and communications and information techniques and methods. It encompasses the use of computers, data communications, office systems technologies, as well as any technology that deals with modern day application of computing and/or communication. It can also be seen as the marriage of information technology and data communication.

15. ICT Solutions - the various ICT technologies that are currently existing or will be proposed to run the information systems. Examples of ICT solutions are: for Network – Virtual Private Network, Thin Client; Wireless; for Security – Firewall, Public Key Infrastructure (PKI); for Storage – Storage Attached Network (SAN), Imaging, Warehousing; for Data Capture – Biometrics, Finger Scan, Optical Scan, Optical Mark Reader (OMR), Optical Character Recognition (OCR).

16. Information System (IS) - a system of major processes or operations which facilitates the storage, processing, retrieval and generation of information for decisionmaking, planning, controlling and monitoring purposes. It also refers to a group of related processes (manual or computerized) designed to generate information for the exclusive support of a major functional area of an organization (e.g. Personnel Management Information System, Logistics Management Information System, Financial Management Information System, etc.).

17. Information Systems Planner (IS Planner) – designated by the department secretary/agency head who shall work with the management and Chief Information Officer (CIO) and mainly responsible for the formulation, development and implementation of an Information Systems Strategic Plan (ISSP).

18. Information Systems Strategic Plan (ISSP) - refers to a three (3) to five (5) year computerization framework of an agency which describes how the organization intends to strategically use ICT in pursuit of its mission and functions. A written expression of how an agency intends to use ICT to support its data processing and decisionmaking processes.

19. In-house Development - the user (within the agency) is involved in the design and operations of IS, actively participates in the change process and the user's knowledge and expertise is incorporated.

20. Internet - a worldwide interconnection of millions of computer networks and databases. It is popularly referred to as the Information Superhighway, the Web, or simply as the Net.

21. Internet Service Provider (ISP) – an entity or company that provides connection services to the Internet. Access to the Internet is provided through its facility linked to the Internet. Such service provider may be a commercial entity, an institution, a university, or any other entity that has already a link to the Internet.

22. Management Information Systems – information systems which include external information in addition to the internal information about the agency's operation. This information will be used for goal setting, and decision-making purposes of the different levels of management in the organization.

23. Mission-Critical Frontline Services - basically transactional, customer-driven business processes designed to provide direct public access to government services, reduce the processing and approval time of government transactions with the public, electronically organize and store vital data/information for easy retrieval or updating, processing, and sharing with government monitoring or statistical agencies; and ensure greater transparency, accountability and integrity of government operations and transactions

24. Modem – a device that converts digital signals from the computer into analog signals to be transmitted over communication media to be transmitted back to digital signals read by computer. It can be either external or internal. It is an electronic device that makes possible the transmission of data to or from a computer via telephone or other communication lines.

25. Network - a computer-based communication and data exchange systems created by electronically connecting two or more computers/workstations. It is composed of two or more computers that can communicate with each other.

26. Network Layout – the logical or physical diagram of both the existing and proposed interconnection of computers and associated devices to provide end-users with a means of communicating and receiving information electronically without being limited by geographical distance.

27. Office Automation System (OAS) – collect, process, store and transmit information in the form of electronic office communications.

28. Online Systems – real-time processing systems that process data immediately after they are generated and can provide immediate output to users.

29. Operating System – software that supervises and controls tasks on a computer. The software that directs a computer's operations, as by controlling and scheduling the execution of other programs and managing storage and input/output.

30. Outsource – an arrangement in which one company provides services for another company. ("What is?Com's Encyclopedia of Technology Terms; Que Publishing 2002)

31. Personal Digital Assistant (PDA) – refers to wide variety of handheld and palm-sized PCs, electronic organizers, and smart phones.

32. Printer – a device that prints text or illustrations on paper. There are many different types of printers. In terms of technology utilized, printers are categorized into the following: (1) daisy wheel, (2) dot matrix, (3) ink-jet, (4) laser, (5) line printer, and (6) thermal printer.

33. Router – a device that physically connects two networks, or a network to the Internet, converting address and sending on only the message that need to pass to other network.

34. Server – a computer that shares its resources, such as printers and files, with other computers on the network, an example of this is a Novell Network Server which shares its disc space with a workstation that does not have a disk drive of its own. A computer that makes services, as access to data files, programs and peripheral devices, available to workstations on a network.

35. Software - a set of instructions to a computer (and its peripheral equipment) to execute a command or process data. It uses a computer-understandable language. The non-physical components, which maybe an operating system, a development language, database management system, network management software, set of computer tools and utilities, or an application package, as well as the machine coded instructions that direct and control the different hardware facilities.

36. Software License - agreement between a user and a software house, giving details of the rights of the user to use or copy software (www.petercollin.com); a legal right granted for a company/agency to run a software program. For every software program used, a license is needed and granted to the user (company or agency) and is documented in a license agreement (www.microsoft.com/indic/licensing).

37. Software Packages – or "canned program" is a set of programs prepared for applications that are common to the needs of many organizations. This is made available to users by the software manufacturer to include the operating instructions and documentation of the programs as part of the packages.

38. Telecommunication – refers to the transmission of electronic signals; electronic transmission of any type of electronic information (voice, image, video, data, etc.). The movement of information in the form of voice, text, image, video or all of these multimedia using electrical, electromagnetic wave and light technology.

39. Web Hosting – the business of housing, serving, and maintaining files for one or more websites ("What is?Com's Encyclopedia of Technology Terms; Que Publishing 2002).

40. Workstation – a networked personal computing device with more power than a standard IBM PC or Macintosh. Typically, a workstation has an operating system such as UNIX that is capable of running several tasks at the same time. It has several megabytes of memory and a large high-resolution displa.

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GENERAL INSTRUCTIONS

1. This Template is prescribed primarily to guide government agencies to formulate and present its ISSP in brief. Government agencies may provide information that could add better clarity to the ISSP. The ISSP Template Revised 2014 contains the basic information that is required by the government and therefore does not inhibit the agency from making their ISSPs more complex for other purposes.

2. The agency must submit one hard copy of the initial ISSP to DICT for review and evaluation, together with a transmittal letter signed by the agency head and addressed to the Secretary, Department of Information and Communications Technology, DICT Bldg., C.P. Garcia Ave., U.P. Campus, Diliman, Quezon City. The ISSP shall also be emailed to issp@dict.gov.ph/secretariat@mithi.gov.ph.

3. In the cover page:
   3.1 State full name of the agency if the ISSP covers only an attached agency/bureau.
   3.2 State full name of the person who actually prepared the ISSP. If it is a technical working group or committee, state the name of the group/committee head. Indicate his/her e-mail address.
   3.3 The ISSP must be approved and signed by the Head of Agency, or Chairman of the Board, or SUC President, as the case maybe.
   3.4 Indicate the URL/website of the agency.
   3.5 Please check appropriate box to describe the scope of the ISSP.

4. Once the ISSP is complete and complied with requirements as per review and evaluation of DICT, then the agency must submit two (2) hard copies of the final ISSP to the DICT for endorsement and a soft copy in CD (pdf or doc file).

5. Agencies are advised to use font size 12 and government sized (A4) bond paper, however, page margin may vary.

6. The ISSP Template Revised 2014 can be downloaded from the DICT website: http://www.dict.gov.ph.

7. For clarifications, please contact DICT at telephone nos. 920-01-01 local 3912 or 920-74-21 or send e-mail messages to issp@dict.gov.ph; secretariat@mithi.gov.ph. 8. DICT may release ICT Advisories on any updates to this Template.

INFORMATION SYSTEMS STRATEGIC PLAN (ISSP)

2020

A. NDC VISION/MISSION STATEMENT

A.1 MANDATE

Legal Basis

The National Development Company (NDC) was first established as "Compania de Fomento Nacional" on March 10, 1919 via Legislative Act 1248. It was made a state-owned company and the present name was established on November 30, 1936 via Commonwealth Act 182, this also mandated the NDC to function as the government's investment arm. The corporate life of NDC was extended and new capital base was extended on January 9, 1938 with the Commonwealth Act 311.

On March 7, 15, the authorized capital of NDC was increased, the corporate life is extended for 25 more years and it was given powers to act to act in behalf of the government via Presidential Decree 886. The reorganization of NDC was done in 19 thru the Presidential Decree 1648 (NDC Revised Charter). It also increased the capital stock as well as empowering the NDC to exist for 50 years from 19 and deemed renewed for an equal period. In 2003, NDC was reorganized by Executive Order 184 to fulfill its new mandate of providing equity investment in pioneering development-oriented projects.

Functions

Under the Executive Order No. 184, the National Development Company shall perform the following functions:

- Redirect and refocus its thrusts and priorities to position the country's competitive advantage in the international environment by assisting in the efforts to market it as a premier investment site;

- Adopt a new investment philosophy and strategy by actively sourcing funds and investing the same in a portfolio of socially relevant and commercially-driven projects, the returns from which shall balance out the generation of income streams and insure sustainable financial returns to uphold the government's shareholder value;

- Adopt a more aggressive divestment policy and clearer exit mechanism on its equity investments which could be best handled by the private sector;

- Act as a holding company to manage its subsidiaries where government investments are placed, ensure that their growth potentials are maximized to enhance government's shareholder value and adopt control mechanisms to effectively monitor the performance of its subsidiaries.;

- Realign the programs and priorities of the company in support of the present government's economic agenda and to synchronize its tasks with the Department of Trade and Industry's concerns and policies;

- Invest in areas where investments gaps exist in synergy with government financial institutions, large cooperatives, rural banks and NGOs;

- Restructure its organization by ensuring that its manpower possesses the necessary skills and competencies needed for its proper role, scope and focus and to enable the organization to become more responsive, dynamic and cost efficient.

General Functions of NDC Offices

1. Office of the General Manager

- Lead the over-all operations of the company particularly in terms of Strategic Management and Internal Auditing.

1.1 **Internal Audit Department**

- Leads the organization in accomplishing corporate objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

2. Special Projects Group (SPG)

- Supervise the study and implementations of special projects that is financed or supported by the NDC

3. Funds Management Group (FMG)

- Structure financial packages for Investment Groups such as: loan syndication, bond flotation and securitization;
- Secure and coordinate support for NDC projects from foreign and local financial institutions;
- Handle revenue collection and cashiering as well as debt monitoring and servicing.

4. Asset Management Group (AMG)

- Asset value maximization through structuring lease arrangements that are equitable to NDC and its partners and/or designing a divestment schedule of assets.
- Enters into lease agreements and monitors lease compliance with their contractual terms.
- Administers the turn-over of privatized assets to the buyer or new owner.
- Asset value preservation through timely payment of real property taxes and other property assessments, property registration and cancellation of expired annotations on titles and ensure safekeeping and maintenance of properties.

5. Corporate Support Group (CSG)

Composed of the Core Corporate Operational units of the company that includes the following:

5.1 Finance and Administrative Department (FAD)

- Provide financial services, logistics and support services for NDC employees, external institutions and partners
- Serve as human resource management, thus delivering development, competency and professionalism within the organization.
- Prepare Corporate Operating Budget (COB) and certify availability of funds upon requests within the NDC.

5.2 Legal Department

- Establish fact-finding investigations and prosecution for administrative cases filed by the NDC.
- Provide counseling service to offices within the NDC and regarding proposed recommendations, legislations or bills affecting the NDC.
- Represent employees of the NDC charged before the Courts.

5.3 Corporate Planning Department (CORPLAN)

- Lead the strategic and tactical resource execution of corporate goals and objectives, ensure systematic and integrated approach to enable the company to make better decisions.

A.2 NDC Organizational Vision

NDC is the Philippine's leading state-owned enterprise investing in diverse industries, serving as an effective catalyst for inclusive growth.

A.3 Mission Statement

Enabling industry development, spurring local economies

A.4 Major Final Outputs

NDC has adopted the Performance Governance System (PGS) and has already passed the third stage, Proficiency. The PGS provided the agency with the framework to re-assess its purpose priority investment areas, processes and the agency as a whole. It likewise articulates the parameters for setting corporate goals, aligned with the those of the various planning platforms of the government including NEDA's Ambisyon 2040 and DTI's plans and programs.

One of these parameters is the agency's strategy map. It shows how NDC creates value by connecting its strategic objectives in explicit cause and effect relationship using the four (4) perspectives of the balanced scorecard: impact, strategic focus, core process, and learning and growth. In the process, the agency clarifies its business proposition determining both its value-added through its core processes, and the value of intangible asset anchored on its strategic themes of investing in development and prioritizing organizational efficiency and governance.

In 2020, the Governance Commission for GOCCs (GCG) included the automation of key processes as one of NDC's strategic objective. The measure was the Information Technology Systems Implemented, the formula being the number of projects completed based on the number of deliverables per ISSP / total number of deliverables per 2020 ISSP submitted to DICT and the target is 100% completion of the 2020 ISSP deliverables as submitted to DICT.

PART I. Organizational Profile

B. Department/Agency Profile

B.1 Designated IS Planner – **Lew Jorden R. Julve**

Position: Information Technology Officer

Email Address: info@ndc.gov.ph

Contact Number: 8840-4838 loc. 216

Organizational Unit: Corporate Planning

B.2 2020 ICT Annual Budget: **₱ 3,179,500.00** (Part of the Corporate Operating Budget)

B.3 Source of Funds: NDC Corporate Fund

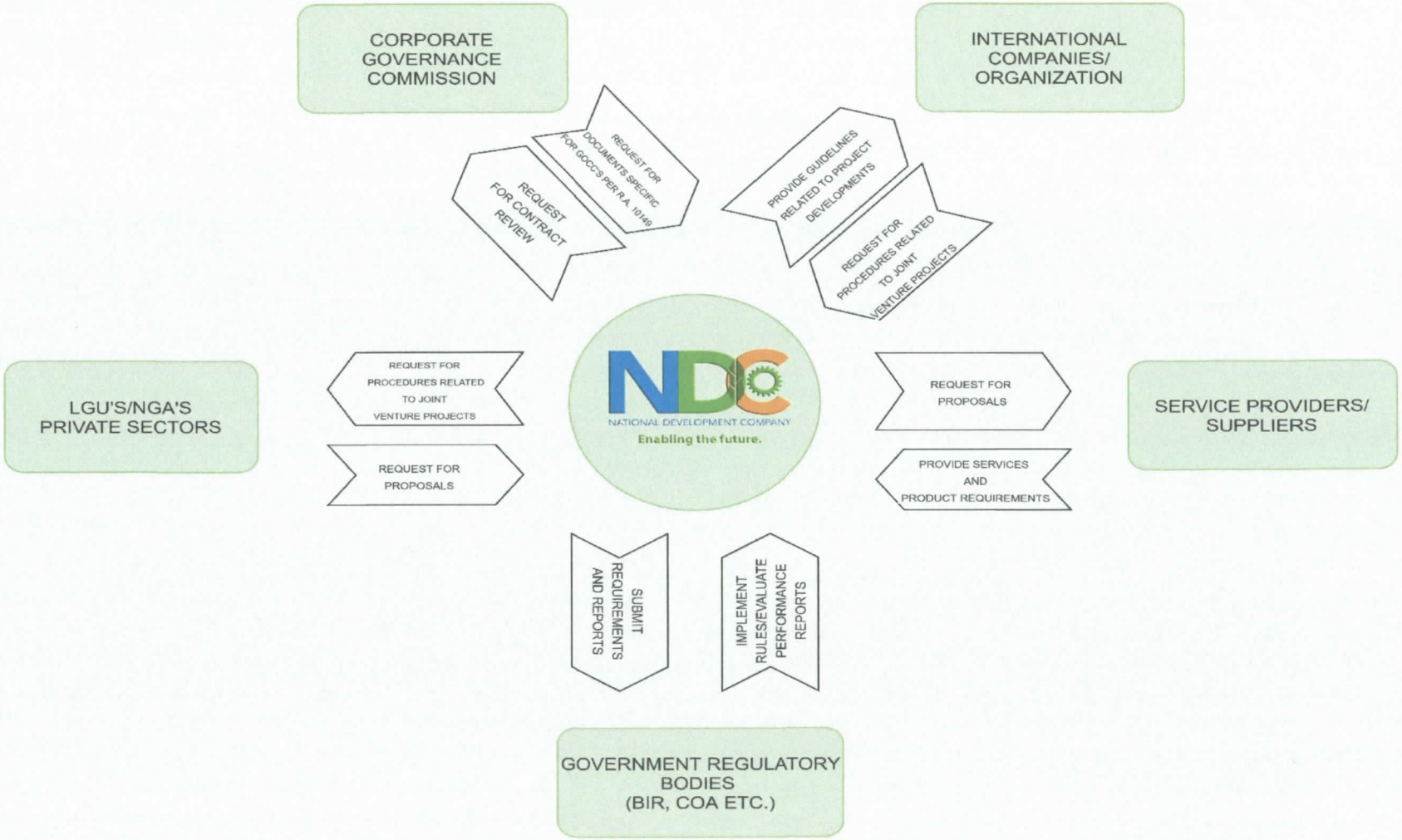
B.4 Organizational Structure:

Regional Offices/Extension Offices	Department /Workgroup	No. of Plantilla Positions	Filled	Unfilled	Consultancy	COS/JO	Total No. of Hired Employees
NONE	OGM	5	2	3	1	2	5
	IA	4	1	3			1
	SPG	14	5	9			5
	FMG	5	2	3	1		3
	AMG	8	2	6	1	6	9
	FAD	16	10	6		32	42
	LEGAL	6	3	3			3
	CORPLAN	4	1	3	2		1
	CSG	2	1	1			1
	Total	64	28	36	5	40	72

No. of Regional Offices: **None**
No. of Provincial Offices: **None**
No. of Other Offices: **None**

PART I. Organizational Profile

C. National Development Company and its Environment (Functional Interface)



PART I. Organizational Profile

D. Present ICT Situation (Strategic Challenges)

The National Development Company aims to be the Philippine's leading state-owned enterprise investing in diverse industries, serving as an effective catalyst for inclusive growth. To attain this objective and perform its mandates, The National Development Company has been investing in multiple sustainable projects for different industries located in key areas in the Philippines to help the national government uplift the quality of life of the Filipino people. In order to continuously meet its goals, the National Development Company enhances its Information and Communication Technology to efficiently facilitate the administration of its mandated function. All the employees of company have their own workstation and computers are equipped with the latest hardware and software systems. Majority of the employees can operate their computers including the printers and scanners. In addition, the company uses various application systems which were specially designed to support the overall operations of the company. To date, the company utilizes 3 key systems that are continuously being enhanced such as the Knowledge Management Information System (KMIS), NDC Dashboard and Financial Management System. These systems were specifically designed according to the standard requirements of the company. For calendar year 2020 the company will automate more operational processes by developing cloud-based applications for Budget, Human Resources and Accounting Units to enhance productivity of all employees. Below are some key details of each system:

1. Knowledge Management Information System (KMIS)

The Knowledge Management Information System serves as a key tool for all workgroups of the National Development Company for the proper control and security of its valuable documents, forms and key information. This system ensures the authenticity and accuracy of all significant files of every workgroup.

The user management of this system includes 3 key profiles. The first one is the "workgroup head" which is usually the department manager. The workgroup head is assigned as the approver in which he/she ensures that only significant, authentic and accurate documents are uploaded in the workgroup folders.

Secondly, the member profile which are given to all other employees who are under a specific workgroup. These member users are the ones who upload relevant documents/forms which will be reviewed by the workgroup head.

Lastly the admin user, this user is assigned to manage the knowledge management information system interface which includes creation of user accounts, recovery through email, and password reset.

2. NDC Dashboard

The NDC dashboard is an operations management system with specific functions for 4 workgroups which include Asset Management Group, Finance and Administrative Department, Funds Management Group, and Special Projects Group. This system enables every workgroup to effectively manage all critical requirements as well as monitor performance or status of a particular project or task.

The NDC dashboard includes updating or recording of recent operational data per workgroup as follows:

Asset Management Group

- AMG assets
- Occupancy
- Maintenance Cost
- Status of Assets
- Projects Shareholders
- Financial performance

Finance and Administrative Department

- Balance Sheet
- Operating Income/Dividend
- Income: Actual vs Budget
- Expense A vs B

- Collection Efficiency
- Budget Utilization
- Reports

Funds Management Group

- Bonds Issued
- Bonds Maturity
- Coupon Payments
- Loan Proceeds Utilization/Allocation
- Net Lending

Special Projects Group

- New Projects
- Existing Project
- Financial Perf/Indicator
- Project Disclosures
- Shareholders

System Administration

- User Management
- System Logs
- Notifications

3. Financial Management System (FMS)

The Financial Management System (FMS) is a monitoring and administrative system under the accounting unit of NDC. The system generally serves as the automated system related to accounting transactions such as billing, tax computation, payment or receipt entries, materials requisition and reports generation. The system is accessed through a browser and can be used offline within the NDC network.

The FMS includes the following modules:

- Integrated Modules
- General Ledger
- Accounts Receivable
- Accounts Payable
- Billing o Billing Statement
- Entries o Receipt o Payment o Journal
- Material Requisition
- Receiving Report
- Budget Utilization

4. Human Resources Information System (HRIS) -Proposed

The proposed cloud-based Human Resources Information System will serve as the databank and main automation tool for the HR unit of the Finance and Administrative Department of NDC. Managing employee related information and transactions such as leave credentials, overtime pay, trainings and government benefits of employees. All the employees will be given an account in order for them to receive important updates, announcements, monitor their HR records such as training records, leave credits, loans, filing of their most recent HR data etc. The user access for this application will be limited to Super User Access/Administrative Access for IT Unit/HR Unit heads and Basic Access for all other employees.

The HRIS system will include the following modules and will be integrated to the Financial Management System:

- Employee Records Management
- Leaves and Attendance Monitoring
- Payroll/Salary Module
- Employee Benefits Module
- Employee Training Module
- Performance Monitoring

The National Development Company manages its email facility through an outsourced email provider with all regular employees provided with individual email accounts. In terms of website hosting, the NDC website (ndc.gov.ph) is hosted by an outsourced company with the IT unit of NDC as the website admin.

In addition, all the computers installed in NDC are up to date, are high end computers with i7 processor, licensed Windows Operating System (OS), Microsoft Office applications, protected with an advanced firewall system, intranet-based and or internet-based.

Thru ICT, NDC aims to continuously improve its various systems for better operations and to help the company attain its goals.

5. **Budget Management System (Proposed)**

The Budget Management System is included in the Cloud Integrated Information System. This includes real-time preparation, updating and monitoring of budget unit transactions. This system includes user module for Executive and Basic employee access and includes a database that is integrated with the Financial Management System. The entire system has a dynamic mobile and computer user interface.

6. **Check Writing System**

The check writing system will be a locally hosted application to be used by the treasury unit for the automation of printing checks with proper alignment and recording.

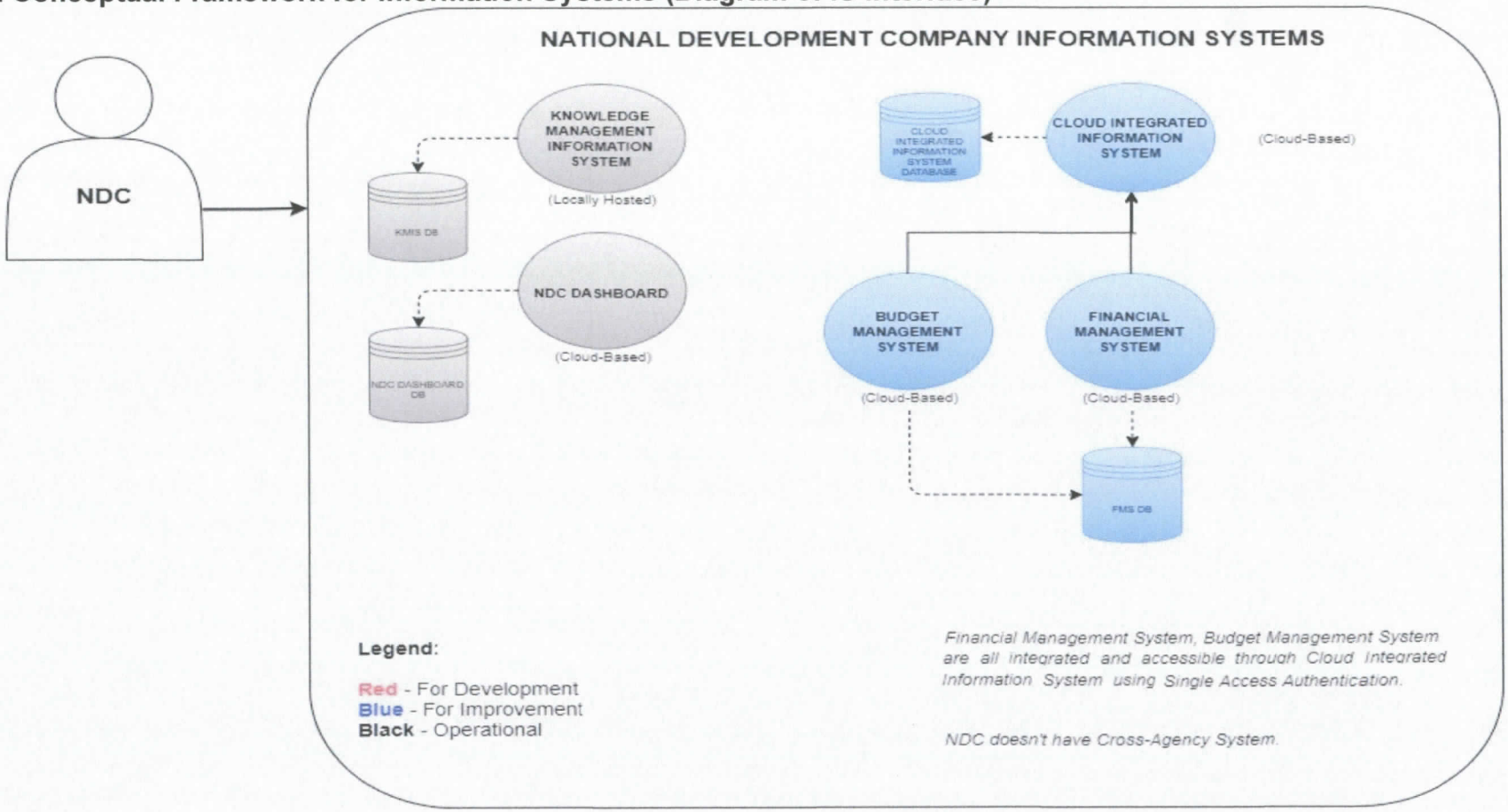
PART I. ORGANIZATIONAL PROFILE

E. STRATEGIC CONCERNS FOR ICT USE(NARRATIVE)

MAJOR FINAL OUTPUT	BREAKTHROUGH GOALS	CRITICAL MANAGEMENT/OPERATING/BUSINESS SYSTEMS	PROBLEMS	INTENDED USE OF ICT
Automate Key Processes **Measure:** Information Technology Systems Implemented **Formula:** Number of Projects Completed Based on the Deliverables Per ISSP / Total Number of 2020 Deliverables Per 2020 ISSP Submitted to DICT **Actual Target:** 100% Completion of the 2020 ISSP Deliverables as submitted to DICT	**Creation of Cloud Integrated Information System**	This information system will serve as the on-cloud dashboard for the cloud integrated internal and external services for the NDC. The following will be the key features of this system:	There is no cloud-based storage for systems/application in NDC. The implementation of the system doesn't have any link Access is limited to office access through employee computers.	Universal account management will be contained in this system, thus there will be only one account to access all on-cloud systems. This system is designed to accommodate and contain the future proposed on-cloud systems.

PART II. Information Systems Strategy

A. Conceptual Framework for Information Systems (Diagram of IS Interface)



PART II. Information Systems Strategy

NDC Information Systems

Cloud Hosted Systems

1. NDC Dashboard (Executive System for Company Operations, includes recent corporate updates and statistical data)
2. Cloud Integrated Information System (CIIS)
    - Financial Management System (For upgrade)
        - Budget Management System (For Upgrade)

Locally Hosted Systems

1. Knowledge Management Information System

Support to Operation Systems

1. NDC Website
2. NDC Email

PART II. Information Systems Strategy

B. Detailed Description of Proposed Information Systems

NAME OF INFORMATION SYSTEM/SUB-SYSTEM		*RANK 1:* **Cloud Integrated Information System (CIIS)**
DESCRIPTION		This information system will serve as the on-cloud dashboard for the cloud integrated internal and external services for the NDC. The following will be the key features of this system: - Universal account management will be contained in this system, thus there will be only one account to access all on-cloud systems. - This system is designed to accommodate and contain the future proposed on-cloud systems. CIIS is the dashboard for FMS, BMS and HRIS. Upon sign in user can access FMS, BMS and HRIS with a single sign-on.
$STATUS_3$		Operational
DEVELOPMENT STRATEGY		Outsourced Consultancy Services
COMPUTING SCHEME		Networked Systems – Wide Area Networking
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
$OWNER_8$		OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD

PART II. Information Systems Strategy

B. Detailed Description of Proposed Information Systems

NAME OF INFORMATION SYSTEM/SUB-SYSTEM		*RANK 2:* **Financial Management System**
DESCRIPTION		The upgrade of the Financial Management System includes integration of the entire system to Cloud Integrated Information System, provision of data sharing for Real Time Budget Monitoring System, creation of payroll module, and implementation of revisions suggested by BIR.
$STATUS_3$		Operational
DEVELOPMENT STRATEGY		Outsourced Consultancy Services
COMPUTING SCHEME		Networked Systems – Wide Area Networking
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
OWNER		National Development Company - FAD

PART II. Information Systems Strategy

B. Detailed Description of Proposed Information Systems

NAME OF INFORMATION SYSTEM/SUB-SYSTEM *RANK 3:* **Budget Management System**

DESCRIPTION		The Budget Management System is a cloud-based system used for the preparation and monitoring of budget unit transactions such as budget allotted per workgroup and other budget balances. The database of the application is integrated to the existing financial management system for real-time updates or monitoring.
$STATUS_3$		Operational
DEVELOPMENT STRATEGY		Outsourced Consultancy Services
COMPUTING SCHEME		Networked Systems – Wide Area Networking
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
OWNER		National Development Company - FAD

PART II. Information Systems Strategy

B. Detailed Description of Proposed Information Systems

NAME OF INFORMATION SYSTEM/SUB-SYSTEM		*RANK 4:* **NDC Dashboard**
DESCRIPTION		General platform for the recording or updating of operational data. The application provides statistical data and performance about the operations of the company. The following workgroups are tasked to record or update the application: A. Asset Management Module B. Special Projects Module C. Finance and Administrative Module D. Funds Management Module
$STATUS_3$		*Operational*
DEVELOPMENT STRATEG		*Outsourced Consultancy Services*
COMPUTING SCHEME		*Networked Systems – Local Area Networking*
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
OWNER		OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD

PART II. Information Systems Strategy

B. Detailed Description of Proposed Information Systems

NAME OF INFORMATION SYSTEM/SUB-SYSTEM		*RANK 5:* **Knowledge Management Information System (KMIS)**
DESCRIPTION		Knowledge Management Information System manages the uploading of documents per work group. Access level within the work group can be managed by the work group head. Knowledge Management Information System is NDC's document management system. Each workgroup can upload documents. Head of the work group has an access for documents which needs approval and approve it by using the system. Upon approval of the documents, the documents will be tagged as approved. The head of the users can also provide comments using the comments field in the uploaded file. For example, HR will upload an office order which then can be seen by the Office of the General Manager and approve it before it will be signed.
$STATUS_3$		Operational
DEVELOPMENT STRATEG		Outsourced Consultancy Services
COMPUTING SCHEME		Networked Systems – Local Area Networking
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
OWNER		National Development Company – Corporate Planning

PART II. Information Systems Strategy

C. Databases Required

NAME OF DATABASE		**Cloud Integrated Information System (CIIS) User Database**
GENERAL CONTENTS/ DESCRIPTION		Data for user accounts in all on-cloud systems connected to the Cloud Integrated Information System. Database includes user access database which includes the login credentials to gain access to the system.
STATUS		*For Upgrade*
INFORMATION SYSTEMS SERVED		FMS, HRIS, BMS
DATA ARCHIVING/STORAGE MEDIA		SAN/NAS, CD/DVD-ROM/External Disk/ Cloud
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
OWNER		National Development Company – Corporate Planning
DATABASE MANAGER		National Development Company – Corporate Planning

PART II. Information Systems Strategy

C. Databases Required

NAME OF DATABASE		**Financial Management System (FMS) Database**
GENERAL CONTENTS/ DESCRIPTION		Data on financial accounting including incoming and outgoing transactions of the organization such ledgers, payroll records, vouchers and user access data.
$STATUS_3$		operational
INFORMATION SYSTEMS SERVED		Financial Management System (FMS)
DATA ARCHIVING/STORAGE MEDI		SAN/NAS, CD/DVD-ROM/External Disk/ Cloud
USERS	INTERNAL	National Development Company – FAD and FMG
	EXTERNAL	NONE
OWNER		National Development Company – FAD
DATABASE MANAGER		National Development Company – FAD

PART II. Information Systems Strategy

C. Databases Required

NAME OF DATABASE		**Budget Monitoring Module Database**
GENERAL CONTENTS/ DESCRIPTION[2]		Data on allocated budget per fiscal year, expenses adjustments and working group user access data.
STATUS[3]		*operational*
INFORMATION SYSTEMS SERVED[4]		Budget Monitoring Module
DATA ARCHIVING/STORAGE MEDIA[5]		SAN/NAS, CD/DVD-ROM/External Disk/ Cloud
USERS	INTERNAL[6]	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL[7]	NONE
OWNER[8]		National Development Company – FAD
DATABASE MANAGER		National Development Company – FAD

PART II. Information Systems Strategy

C. Databases Required

NAME OF DATABASE		**NDC Dashboard Database**
GENERAL CONTENTS/ DESCRIPTION		A. Asset Management Module Database – data on management of assets on internal dashboard B. Special Projects Module Database – data on resource utilization, implementation and operations of special projects on internal dashboard C. Finance and Administrative Module Database – data on financial transactions pertaining to general administrative functions of the organization D. Funds Management Module Database – data on allocated funds per workgroup on internal dashboard E. User Access Data
STATUS		A-D – operational
INFORMATION SYSTEMS SERVED		NDC Dashboard Modules
DATA ARCHIVING/STORAGE MEDI		SAN/NAS, CD/DVD-ROM/External Disk/ Cloud
USERS	INTERNAL	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL	NONE
OWNER[8]		OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
DATABASE MANAGER		National Development Company – Corporate Planning (IT)

PART II. Information Systems Strategy

C. Databases Required

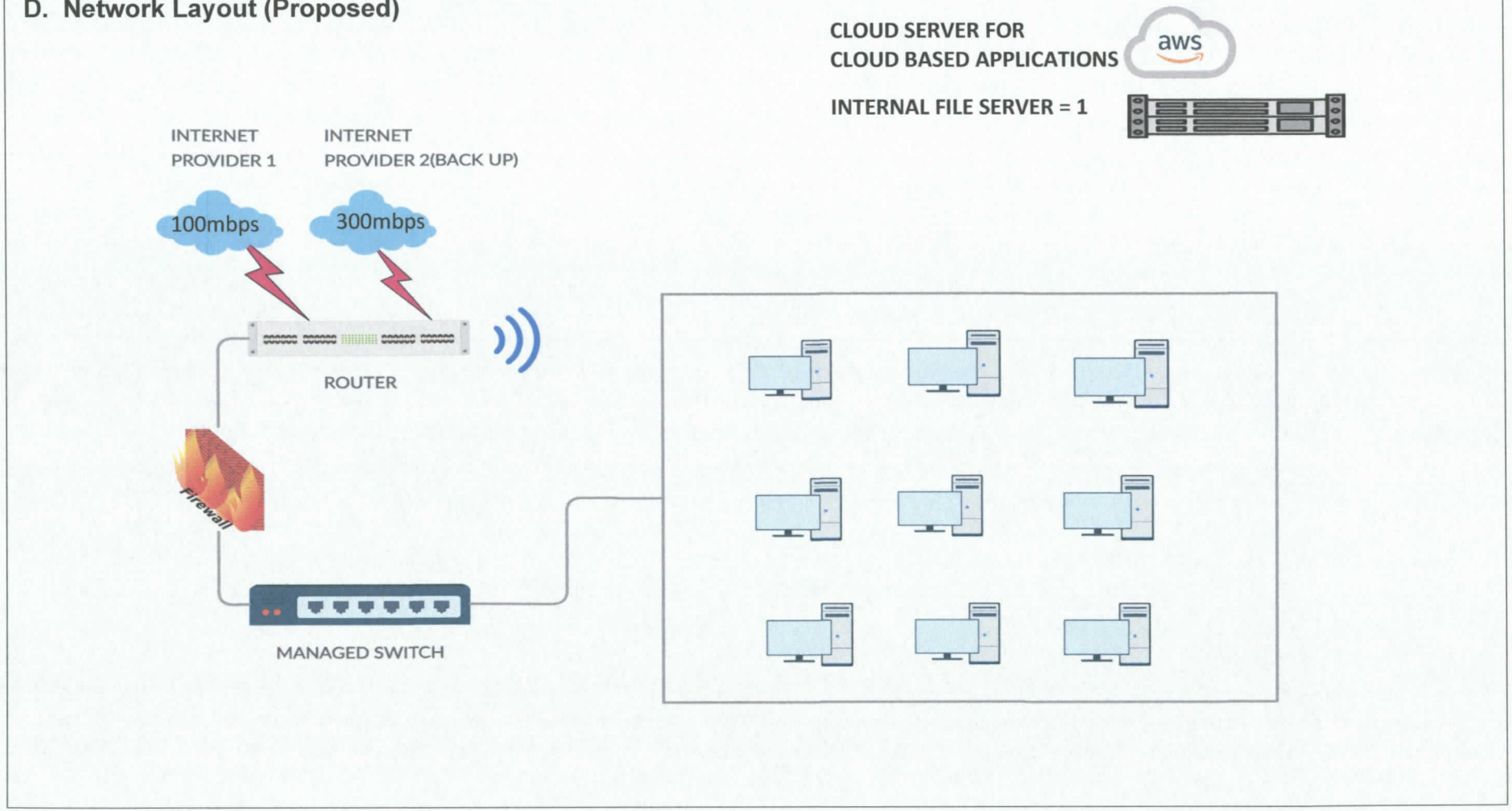
NAME OF DATABASE		**Knowledge Monitoring Information System (KMIS) Database**
GENERAL CONTENTS/ DESCRIPTION		Data related to important records, documents, forms per workgroup and user access data.
STATUS[3]		operational
INFORMATION SYSTEMS SERVED[4]		Knowledge Monitoring Information System (KMIS)
DATA ARCHIVING/STORAGE MEDIA[5]		SAN/NAS, CD/DVD-ROM/External Disk/ Cloud
USERS	INTERNAL[6]	OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
	EXTERNAL[7]	NONE
OWNER[8]		OGM, FMG, CORPLAN, SPG, AMG, IAD, FAD
DATABASE MANAGER		National Development Company – Corporate Planning (IT)

PART II. Information Systems Strategy

D. Network Layout (Existing)

PART II: Information Systems Strategy

D. Network Layout (Proposed)



PART III. Detailed Description of ICT Projects

A. Internal ICT Projects

A.1.1 NAME/TITLE	**Integration of Web Applications to Cloud**
A.1.2 OBJECTIVES	This project aims to provide a unified dashboard for operational information systems and universal account management for on-cloud services both for internal and external processes concerning the company. The unified dashboard will be the portal for future web applications of NDC. The goals of this project are as follows: 1. Develop a Cloud Integrated Information System (CIIS) that will be the gateway for all future on-cloud services of NDC. 2. Lease an Infrastructure as a Service (IaaS) for the deployment and storage of loud Integrated Information System (CIIS)
A.1.3 DURATION	2020
A.1.4 DELIVERABLES	2020 – Procurement of Consultancy Services/Technical Consultant

A. Internal ICT Projects

A.2.1 NAME/TITLE	**Existing ICT Infrastructure Upgrade and Maintenance**
A.2.2 OBJECTIVES	To improve security, maintenance and operations thru state-of-the-art infrastructure that will provide ease of communication and access. This project also aims to provide better connectivity to LAN-based and on-cloud applications for the operations of the NDC. To upgrade and renew existing software services and licensed subscriptions that will expire within the timeframe of 2020. To provide backup internet connection and automated periodic backup for databases utilized by the NDC.
A.2.3 DURATION	2020
A.2.4 DELIVERABLES	2020 – Procurement and installation of backup internet connection. Development and deployment of automated periodic backup for databases.

PART III. Detailed Description of ICT Projects

A. Internal ICT Projects

A.3.1 NAME/TITLE	**Database Centralization of Web Applications**
A.3.2 OBJECTIVES	Migrate database of Financial Management System (FMS), Human Resource Information System (HRIS), Budget Management System to a cloud server while remaining systems in a centralized LAN server.
A.3.3 DURATION	2020
A.3.4 DELIVERABLES	2020 – Centralization of Database

PART III. Detailed Description of ICT Projects

A. Internal ICT Projects

A.4.1 NAME/TITLE	**Digitization of All Relevant NDC Records and Uploading to Knowledge Management Information System**
A.4.2 OBJECTIVES	Preserve vital and relevant records thru digitization while giving easier access to indexed files.
A.4.3 DURATION	2020
A.4.4 DELIVERABLES	Uploading of vital and relevant records in the Knowledge Management Information System, Backup vital records on cloud.

PART III. Detailed Description of ICT Projects

B. Cross-Agency ICT projects

B.1.1 NAME/TITLE	NONE
B.1.2 OBJECTIVES	
B.1.3 DURATION	
B.1.4 DELIVERABLES	

PART III. Detailed Description of ICT Projects

C. Performance Measurement Framework

C.1 Integration of Web Applications to Cloud

Hierarchy of targeted results:	Objectively Verifiable Indicators (OVI)	Baseline Data	Targets	Data collection methods	Responsibility to collect data
Intermediate outcome: Reliable and highly accessible on-cloud applications.	% of service availability	0%	99.9% service availability	Server logs	NDC – Corporate Planning (IT)
Immediate outcome: Improved utilization of on-cloud applications	% of applications utilization	0%	100% of on-cloud services is utilized	Server logs, Feedback and reports	NDC – Corporate Planning (IT)
Outputs Developed, deployed and served on-cloud dashboard for applications	100% Developed CIIS and procured on-cloud hosting	0%	100% CIIS is operational and available on-cloud	Server logs, Feedback and reports	NDC – Corporate Planning (IT)

PART III. Detailed Description of ICT Projects

C. Performance Measurement Framework

C.2 Existing ICT Infrastructure Upgrade and Maintenance

Hierarchy of targeted results:	Objectively Verifiable Indicators (OVI)	Baseline Data	Targets	Data collection methods	Responsibility to collect data
Intermediate outcome: Increased connectivity and network reliability	% of network availability	0%	99.9% network availability	Feedback and reports	NDC – Corporate Planning (IT)
Immediate outcome: Improved network connection within NDC Office	% of connected terminals	0%	100% of terminals within NDC Office is connected to network	Feedback and reports	NDC – Corporate Planning (IT)
Outputs Upgrade and rehabilitate existing network infrastructure.	% of existing network upgraded and rehabilitated	0%	100% of existing network upgraded and rehabilitated	Feedback and reports	NDC – Corporate Planning (IT)

PART III. Detailed Description of ICT Projects

C. Performance Measurement Framework

C.2 Database Centralization of Web Applications

Hierarchy of targeted results:	Objectively Verifiable Indicators (OVI)	Baseline Data	Targets	Data collection methods	Responsibility to collect data
Intermediate outcome: Increase in ICT systems utilization leading to productivity.	% of system availability and utilization of functionalities	0%	99.9% availability and 100% utilization of functionalities	Server logs, Feedback and reports	Database Owners/Concerned Workgroup
Immediate outcome: Improved efficiency of data processing through Centralization of Database Efficient Back-up process	% Availability of Centralized Database	0%	99% Availability of Centralized Database	Feedback and reports	Database Owners/Concerned Workgroup

Outputs Centralized Database for all Web Applications	100% Connectivity of Centralized Database	0%	100% Centralized Database for all Web Applications	Server logs, Feedback and reports	Database Owners/Concerned Workgroup

PART III. Detailed Description of ICT Projects

C. Performance Measurement Framework

C.4 Digitization of All Relevant NDC Records and Uploading to Knowledge Management Information System

Hierarchy of targeted results:	Objectively Verifiable Indicators (OVI)	Baseline Data	Targets	Data collection methods	Responsibility to collect data
Intermediate outcome: Digitize all the vital documents and be available on Knowledge Management Information System (KMIS	% of digitized vital documents available on the KMIS	0%	100% All tagged vital documents are digitized and uploaded on KMIS.	Feedback and reports	All Workgroups
Immediate outcome: Improved indexing and access of vital documents and records.	% of accessed files in the KMIS	0%	100%Increase access and availability of files in the KMIS	System logs, Feedback and reports	All Workgroups
Outputs Digitized vital record of NDC	100% Number of documents to be digitized.	0 %	100% of tagged vital records are digitized	Feedback and reports	All Workgroups
Uploaded on Document Management System (DMS) for easier indexing	100% Easier access to vital documents.	0%	100% of digitized records are uploaded on DMS.	System logs, Feedback and reports	All Workgroups

PART IV. Resource Requirements

A. Deployment of ICT Equipment and Services

ICT Project Item (Allotment / Object of Expenditures)	Name of Office / Organizational Units	Proposed Number of Units	
		2020	Sub-Total
1. INTERNAL ICT PROJECT			
1.1 Office Productivity			
A. Capital Outlay			
ICT Equipment			
• Employee Computer/Workstation	CORPLAN, FAD, SPG, AMG AND CSG	4 Units	4 Units
• Laptop	CORPLAN, IAD AND AMG	4 Units	4 Units
• Camera	CORPLAN	1 Unit	1 Unit
Printing Equipment			
• Printers	CORPLAN, AMG FAD, LEGAL AND SPG	5 Units	5 Units
B. MOOE			
Semi-Expendable Machinery and Equipment - *(ICT Equipment)*			
• External Devices	CORPLAN	7 Units	7 Units

1.2 Integration of Web Applications to Cloud			
A. Capital Outlay			
B. MOOE			
Professional Services - *(Consultancy – ICT Services)*	CORPLAN	3 Consultant	3 Consultant
1.3 Existing ICT Infrastructure Upgrade and Maintenance			
A. Capital Outlay			
B. MOOE			
ICT-Software Subscription			
• Anti-Virus	CORPLAN	35 Units	35 Units
1.4 Database Centralization of Web Application			
A. Capital Outlay			
B. MOOE			
ICT-Software Subscription			
• Cloud Hosting	CORPLAN	1 Lot	1 Lot
1.5 Other Projects and Continuing Expense			

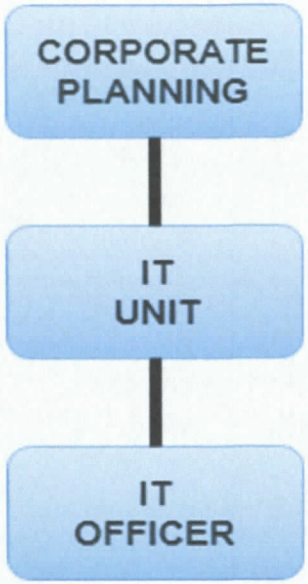
A. Capital Outlay			
B. MOOE			
Professional Services *- (Consultancy – ICT Services)*	CORPLAN	1 Consultant	1 Consultant
ICT-Software Subscription			
• Email Accounts (Hosting Renewal)	CORPLAN	1 Lot	1 Lot
1.6 Digitization of All Relevant NDC Records and Uploading to Knowledge Management Information System			
A. Capital Outlay			
• Scanners	COA, FAD, LEGAL AND SPG	2 Units	2 Units
B. MOOE			

PART IV. Resource Requirements

B. ICT Organizational Structure

B.1 Existing ICT Organizational Structure

Plantilla: 1	Contractual: 2
IT Officer 1	Software Developers

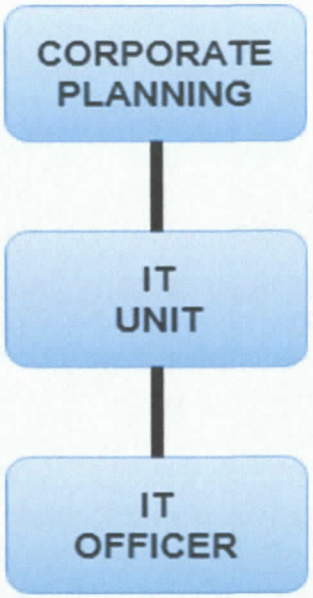


PART IV. Resource Requirements

B. ICT Organizational Structure

B.2 Proposed ICT Organizational Structure

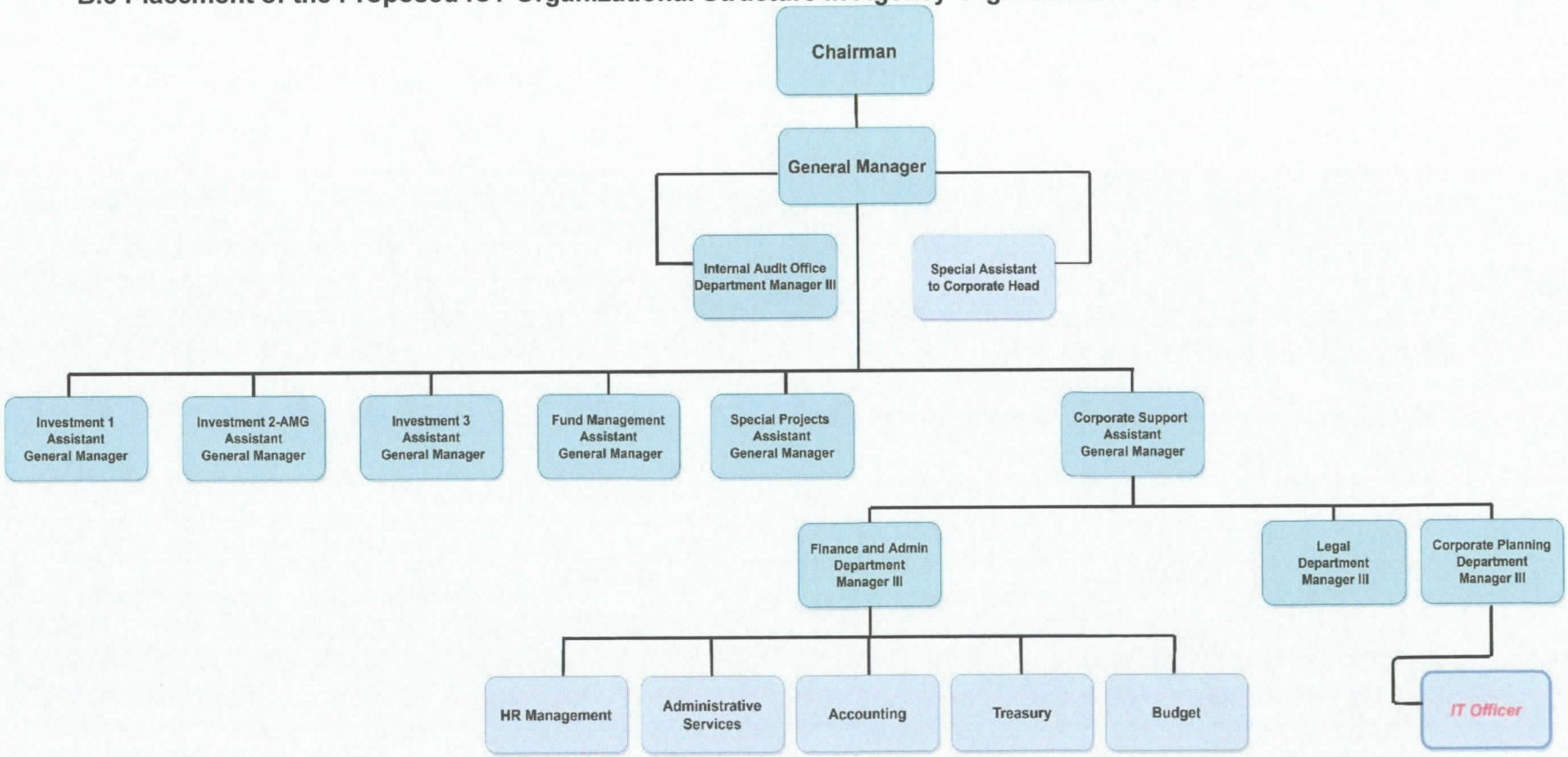
Plantilla: 1	Contractual: 3
IT Officer 1	Software Developers
	Computer Technician



PART IV. Resource Requirements

B. ICT Organizational Structure

B.3 Placement of the Proposed ICT Organizational Structure in Agency Organizational Chart



PART V. Development and Investment Program

A. ICT Projects Implementation Schedule

Name of ICT Project/s	2020	Remarks
Integration of Web Applications to Cloud		Covers procurement and development
Existing ICT Infrastructure Upgrade and Maintenance		Covers procurement, installation & maintenance
Database Centralization of Web Applications		Covers procurement, installation & maintenance
Digitization of All Relevant NDC Records and Uploading to Knowledge Management Information System		Covers procurement, installation & maintenance

PART V. Development and Investment Program

B. Information Systems (IS) Implementation Schedule

Name of ICT Projects	2020	ESTIMATED BUDGET
Cloud Integrated Information System (CIIS)		360,000 cloud based
Upgrade Financial Management System (FMS)		410,000 cloud based
Budget Management System (BMS)		360,000 cloud based

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

C. SUMMARY OF INVESTMENTS

Item (Allotment Class/Object of Expenditures)	2020	
	PHYSICAL TARGETS	COST
1. **Office Productivity**		
A. Capital Outlay		
ICT Equipment		
• Employee Computer/Workstation	4 units	280,000
• Laptop	4 units	310,000
• Camera	1 unit	50,000
• Projector	-	-
Printing Equipment		
• Printers	5 units	150,000
Capital Outlay Sub-total:	**14**	**790,000**
B. MOOE		
Semi-Expendable Machinery and Equipment - *(ICT Equipment)*		
• External Devices	7 units	24,500
MOOE Sub-total:	**3**	**24,500**
Total:	**17**	**814,500**
2. **Integration of Web Applications to Cloud**		

A. Capital Outlay		
Capital Outlay Sub-total:	**-**	**-**
B. MOOE		
Professional Services *- (Consultancy – ICT Services)*	3 Lot	1,000,000
MOOE Sub-total:	**3**	**1,000,000**
Total:	**3**	**1,000,000**
3. **Existing ICT Infrastructure Upgrade and Maintenance**		
A. Capital Outlay		
Capital Outlay Sub-total:	**-**	**-**
B. MOOE		
Professional Services *- (Consultancy – ICT Services)*	1 Lot	550,000
ICT-Software Subscription		
• Anti-Virus	53 Units	105,000
• SonicWall License 3 Years	-	-
MOOE Sub-total:	**54**	**655,000**
Total:	**3**	**655,000**
4. **Database Centralization of Web Application**		
A. CAPITAL OUTLAY		
ICT Software		
• Windows Server License (Perpetual)	-	-

Capital Outlay Sub-total:	-	-
• MOOE		
ICT-Software Subscription		
B. Cloud Hosting	1 Lot	250,000
MOOE Sub-total:	**1**	**250,000**
• **Total:**	**1**	**250,000**
Other Projects and Continuing Expense		
Capital Outlay		
5. **Capital Outlay Sub-total:**	-	-
A. MOOE		
Professional Services - *(Consultancy – ICT Services)*	1 Lot	300,000
B. ***ICT-Software Subscription***		
Email Accounts (Hosting Renewal)-	1 Lot	200,000
MOOE Sub-total:	**1**	**500,000**
• **Total:**	**1**	**500,000**
Digitization of All Relevant NDC Records and Uploading to KMIS		
Capital Outlay		
6. ***ICT Equipment***		
A. Scanners	2 units	60,000
Capital Outlay Sub-total:	**2**	**60,000**

• MOOE		
MOOE Sub-total:	**-**	**-**
B. **Total:**	**2**	**60,000**

PART V. DEVELOPMENT AND INVESTMENT PROGRAM

C. SUMMARY OF INVESTMENTS

	2020
1. Office Productivity (Upgrade of NDC Personnel ICT Productivity Equipment)	814,500
2. Integration of Web Applications to Cloud	1,000,000
3. Existing ICT Infrastructure Upgrade and Maintenance	655,000
4. Database Centralization of Web Application	250,000
5. Other Projects and Continuing Expense	500,000
6. Digitization of All Relevant NDC Records and Uploading to KMIS	60,000
TOTAL	**3,279,500**

PART V. Development and Investment Program

D. Year Cost Breakdown (FY 2020): Year 1 Cost Breakdown (FY 2020)

Detailed Cost Item	Office Productivity	Integration of Web Applications to Cloud	Existing ICT Infrastructure Upgrade and Maintenance	Database Centralization of Web Application	Other Projects and Continuing Expense	Digitization of All Relevant NDC Records and Uploading to KMIS
CAPITAL OUTLAY						
1. ICT Equipment						
• Employee Computer/Workstation	280,000					
• Laptop	310,000					
• Scanners						60,000
• Camera	50,000					
2. Printing Equipment						
• Printers	150,000					
MOOE						
1. Semi-Expendable Machinery and Equipment (ICT Equipment)						
• External Devices	24,500					
2. Professional Services (Consultancy-ICT Services)		1,000,000	550,000		300,000	
3. ICT-Software Subscription						
• Anti-Virus			105,000			
• Cloud Hosting				250,000		
• Email-Accounts (Hosting Renewal)					250,000	
TOTAL COST	**814,500**	**1,000,000**	**655,000**	**250,000**	**500,000**	**60,000**

	SUB-TOTAL 3,279,500

PART VI. Existing Information & Communications Technology (ICT) Infrastructure Inventory

1. Number of Computing Devices and Peripherals by Type and by Year Acquired

1.1. Number of Computing Devices and Peripherals by Type and by Year Acquired

TYPES	TOTAL NUMBER OF FUNCTIONING UNITS BY YEAR ACQUIRED						
	2021		2020		2019		More than 3 Years
	Owned	Lease	Owned	Lease	Owned	Lease	
Mainframe							
Servers	0	0	0	0	0	0	2
Desktop PC	0	0	4	0	2	0	37
Laptop/Notebook/Netbook PC	1	0	4	0	0	0	12
Mobile Phones (Including Smart Phones)							
Tablet PC	1	0	0	0	0	0	6
Multi-function Printer	0	0	2	0	3	0	13
Printer Only							
Digital Camera	0	0	0	0	0	0	1
Wide-Format Printer or Plotter							
Small Scanner	0	0	0	0	0	0	4
Smart Card Reader							
Wide Format Scanner							
External Hard Drive	2	0	0	0	2	0	4
Generator Set							
Others							
LED Monitor	0	0	0	0	0	0	0
Drone	0	0	0	0	0	0	1

Dell Sonicwall Firewall Device	0	0	0	0	0	0	1
Smart Board	0	0	0	0	0	0	2

PART VI. Existing Information & Communications Technology (ICT) Infrastructure Inventory

1.2. Number of Computing Devices and Peripherals by Usage

TYPES	Operations			General Administration and Support Services	Projects (Not agency-funded)
	Employees	Training	Frontline Services		
Servers	1				
Desktop PC	46				
Laptop/Notebook/Netbook PC	16				
Multi-function Printer	18				
Printer only					

1.3 Number of Servers by Capacity and Location

TOTAL CAPACITY OF HDD	LOCATION	
	IN-HOUSE	CO-LOCATED
Above 4TB	1	
2TB to 4TB		
Below 2TB		

PART VI. Existing Information & Communications Technology (ICT) Infrastructure Inventory		
2. Software, Application Systems, Information Systems and Databases		
2.1. Operating Systems **2.1.1. OS for Stand-alone PCs (desktop and laptops)**		
OPERATING SYSTEM	Lifetime License	If not, write below the year of expiration
Older than Windows XP		
Windows XP		
Windows Vista		
Windows 7	✓	
Windows 8 and Up	✓	
Linux		
Mac OS	✓	
Mac OSX	✓	
Others		
1.1.2 OS for Servers		
OPERATING SYSTEM	Lifetime License	If not, write below the year of expiration
Windows NT		
Windows 2000		

Windows 2003		
Windows 2008		
Windows 2012	✓	
Solaris		
Open Solaris		
OS/2		
Linux		
MAC OS X Server		

.2 **Office Automation Software**		
SOFTWARE / APPLICATION PACKAGE	Lifetime License	If not, write below the year of expiration
Older than MS Office 2003		
MS Office 2003		
MS Office XP		
MS Office 2007		
MS Office 2010	✓	
MS Office 2016	✓	

MS Visio		
MS Project		
Open Project		
Open Office		
Others		
Home and Business 2016	✓	
Home and Business 2019	✓	

1.3 **Operational Oversight/Administrative Systems**

Name of System	Own Intellectual Property	Development Platform	Working Environment	Maintenance Cost	Use
CIIS	No	Cloud, HTML, JS, PHP	Web-based	-	Ease of doing business
FMS – New	No	Cloud, HTML, JS, PHP	Web-based	-	Ease of doing business
FMS – Old	No	HTML, JS, PHP	Client -based	-	Ease of doing business
KMIS	No	HTML, JS, PHP	Client-based	-	Ease of doing business

NDC Dashboard	No	Cloud, HTML, JS, PHP	Web-based	-	Ease of doing business

1.4 **Operational Oversight/Administrative Systems**					
Name of System	Own Intellectual Property	Development Platform	Working Environment	Maintenance Cost	Use
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

1.5 **Databases**					
Name of Database	Own Intellectual Property	Brief Description and Key Fields	Database Management Software Used	Maintenance Cost	Use
CIIS DB	No	Connection of Cloud-based system User Field	Amazon Web Services	-	Ease of doing business
FMS DB - New	No	Database of FMS	Amazon Web Services	-	Ease of doing business

FMS DB - Old	No	Database of FMS	PHPMyAdmin	-	Ease of doing business
KMIS DB	No	Database of KMIS	MongoDB	-	Ease of doing business
NDC Dashboard	No	Database of all workgroup	Amazon Web Services	-	Ease of doing business

2. Network

2.1 Does your agency have a Local Area Network (LAN)? **YES**
2.2 Does your agency have an Intranet? **YES**
2.3 If yes, does your agency have a Virtual Private Network (VPN)? **NO**
2.4 Does your agency have a Wide Area Network (WAN)? **YES**
2.5 Does your agency have a Private Automatic Branch Exchange (PABX or PBX)? **NO**
2.6 If yes, what is the PBX set up? **N/A**
2.7 Is your agency connected to the Internet? **YES**
2.8 What is/are your agency's mode/s of access to the Internet? **WiFi**, **FIBER LINE, MOBILE PHONE, ISDN**
2.9 Who is (are) your Internet Service Provider(s)? If more than one, please state who is the primary and who is the secondary provider? **DICT**
2.10 What is the combined internet bandwidth (voice and data)? **100 mbps**
2.11 How many employees have access to the Internet in the office? **72**
2.12 How many employees have their own official e-mail address? **45**
2.13 Does your agency have a web site? **YES**
2.14 If YES, what is the URL of your agency's web site? **http://ndc.gov.ph/**

3. **Security, Disaster Recovery and Backup**
   - 3.1 Does your agency have a protection scheme for your ICT resources? **YES**
   - 3.2 If YES, what is/are the measure/s being used by your office?
     Security Policy/Guideline,
     Back-up Power Unit,
     Software Firewall,
     Subscription to a Security Service,
     Off-site backup,
     Physically restricted access to critical ICT equipment,
     Secure Servers,
     Storage of backup media in localities other than the operating environment.

4. **Data Archiving**
   - 4.1 Does your agency have a data archiving system? **YES**
   - 4.2 If yes, what type of data archiving system does your agency use? **Manual/Electronic**
   - 4.3 If electronic data archiving is being utilized, what is the mode? **Conventional**
   - 4.4 If conventional mode, what is the medium of storage of the archived data? **Local Server**
   - 4.5 What information is archived by your agency electronically?
     Publications,
     Audio-visual recordings,
     Photographs,
     Letters, memorandum orders, communications, etc.

5. Special Solutions and Other Services		
SPECIAL SOLUTION PACKAGE	USE	MAINTENANCE COST
Geographic Information System	-	-
Automated Fingerprint Identification System	For door access	-
Cloud Computing	-	-
CCTV System	Security	-

6. Data Archiving

6.1 Does your agency have a data center? **NO**
6.2 If yes, how many sites? **N/A**
6.3 Maintenance Setup: **N/A**
6.4 Backup site: **N/A**

7. ICT PROJECTS

7.1 Details of Ongoing ICT Projects

PROJECT NAME	DESCRIPTION	PERIOD		Cost	Development Strategy	Status	Use
		Start	End				
Integration of Web Applications to Cloud	Development of cloud-based system	10/01/21	04/01/22	680,000	Outsourced	Under Development	Ease of Doing Business
Existing ICT Infrastructure	Procurement of ICT equipment	01/01/2021	12/31/21	1,120,500	Outsourced/In-house	Operational	Ease of Doing Business

Upgrade and Maintenance							
Database Centralization of Web Applications	Renewal of Email and Cloud Hosting and Website Hosting	12/06/2020 10/26/2020	12/06/2021 10/27/2021	341,000	Outsourced	Operational	Ease of Doing Business
Digitization of All Relevant NDC Records and Uploading to Knowledge Management Information System	Scanning of documents and upload to KMIS	01/01/2021	12/31/2021	60,000	In-house	Operational	Ease of Doing Business

8.2 Issues Encountered in the Implementation of ICT Projects:

Difficulty in recruiting and/or retaining ICT personnel,
Problems in procurement
Covid-19 Pandemic