Group 0X

ALPMS (Automated Loan Processing & Monitoring System)

Group 04

ALPMS

(Automated Loan Processing & Monitoring System)

By

Group 04

1621176 Syed Shams Elahi



INDEPENDENT UNIVERSITY, BANGLADESH

February, 2018

Supervisor: Dr. Mahady Hasan, Asst. Professor, CSE

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1

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Approval

This report entitled

ALPMS

(Automated Loan Processing & Monitoring System)

By

Group 0X

Has been approved by

Instructor of Database Management Course

The Department of Computer Science and Engineering,

Independent University, Bangladesh.

(Sign)

Instructor: Dr. Mahady Hasan, Asst. Professor, CSE

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The final copy of this report has been examined by the signatory and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.

ALPMS (Automated Loan Processing & Monitoring System)

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ORIGINALITY STATEMENT

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at IUB or any other educational institution, except where due acknowledgement is made in the report. Any contribution made to the research by others, with whom I have worked at IUB or elsewhere, is explicitly acknowledged in the report. I also declare that the intellectual content of this report is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

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ACKNOWLEDGEMENT

Dr. Mahady Hasan

Syed Shams Elahi

4

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Reference:

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www.sreda.gov.bd/, 5/02/18

www.biffl.org.bd/, 5/02/18

<u>www.idcol.org</u>, 5/02/18

Appendix (To reduce the size of the main report an extension of the report is given in this area. The main report should refer to this area. The part that is so important that you can't exclude it from the report neither can include in the main part is normally placed in this section.)

Contents

Originality Statement	3
Background of the Project	8
Background of the Organization	9
SREDA	10
Vision	10
Mission	10
Goal	11
Objectives	11
Organogram	11
IDCOL	. 14
Vision	14
Mission	14
Goal	15
Objectives	15
Organogram	15
BIFFL	. 16
Vision	16
Mission	17
Goal	17
Objectives	17
Organogram	18
Objective of the Project	19
Scope of the Project	19
Existing Business System with Rich Picture	20
Existing business System with rich picture description	21
Existing processes along with six system elements (Loan type a)	22
Existing Problems & Analysis of the problem along with solution (Loan type a)	. 30
Existing processes along with six system elements (Loan type B)	34
Existing Problems & Analysis of the problem along with solution (Loan type b)	. 37
Proposed Business System with Rich picture	43

ALPMS Group 0X

Proposed system rich picture description (loan type A)										45		
6 ALPMS										Crou		
Grou p 04 (Automated Loan Processing & Monitoring System)												
a)	process					-		elements	·	OAN		
46			•••••	•••••••		•••••	•••••	•••••		•••••		
a)	Problems											
52	•••••			••••••	••••••	•••••	•••••	•••••		•••••		
B) ¹	process		-				scriptio	,	oan	type		
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B)	Problems					_			·			
61			•••••	••••••	••••••	•••••		•••••		•••••		
Loan Typo defined.	e AN ERD		•••••				Е	error! Bo	okmark	not		
Loan ERD					Type					В		
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Loan schema		typ	e			A			re	lation		
67			•••••			•••••	•••••	•••••		•••••		
Loan schema		typ	e			В			re	lation		
70	•••••		•••••									
Normalize entities	ed	form		of		loan		type		A		

74					•••••
Normalized entities	form	of	loan	type	b
76					•••••
Process a	modeling	of		oan	type
78		•••••	•••••	•••••	
Process B	modeling	of		oan	type
93		•••••	••••••	•••••	•••••
Loan A					Туре
Loan B					Туре
Loan Dictionary104	type		A		Data
Loan dictionary120	type		b		data
Physical Design					System
GUI Query147					and
Problems faced					
Solution					

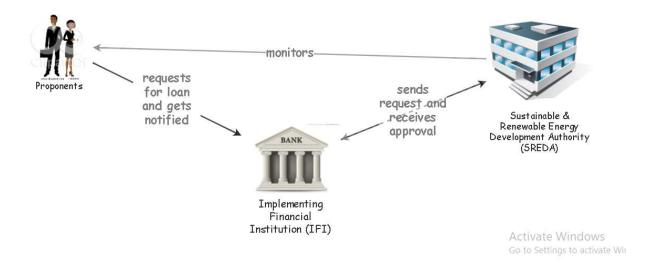
BACKGROUND OF THE PROJECT

As of this time, the loan process being implemented by Infrastructure Development Company Limited (IDCOL) and Bangladesh Infrastructure Finance Fund Limited (BIFL) - the Implementing Financial Institutions (IFIs) relies on a series of manual, and unorganized steps.

In our CSE 303 Database Management System course, we have been tasked with analyzing the complete business model, critique it, and based on our observations develop an Automated Loan Processing and Monitoring System. The system proposed will have to take full advantage of automation, sustainability and usability by organizing the loan management process into a more organized, systematic, logical, procedural, and sound manner. It software will also enable the stakeholders to monitor and record the progress of their process in the organization. It will enable the organization to have more confidence over its data by storing information regarding the progression, reports, eligibility conformities, etc. more accurately and efficiently than as the current model. No critical and sensitive information will be saved locally so as to avoid being compromised. Hence it will utilize cloud technology. The amount of work on part of the Financial Institutions in carrying out the loan process manually is very cost expensive, as there can be discrepancy at any stage of a quite large process. Thus preventing them from closing the loans by the agreed-upon due date. The automated system proposed, having magnified down to all the drawbacks, will provide a higher efficiency and automation, reducing manual and cumbersome tasks, and overall, lower the costs of the organization greatly.

Our software is finely tailored to suit the requirements of our clients - the proponents, implementing financial institutions (IFI), Sustainable and Renewable Energy Development Authority (SREDA), participating distributor (PD), Japan International Cooperation Agency (JICA) and also Ministry of Power, Energy and Mineral Resources (MPEMR). The business model of the overall organization sums up to these major work blocks:

RICH PICTURE OF THE ORGANIZATION



There are two loans for extending the EE&C promotion financing loan, which are:

- (a) A-type loan: IFIs lend money directly to the companies and organizations who are introducing the EE&C equipment, and;
- (b) B-type loan: There is an intermediary distribution organization called "participating distributors (PDs)" who supply EE&C equipment (home appliances).

BACKGROUND OF THE ORGANIZATIONS

With the rapidly depleting natural resources, and deteriorating environmental changes, the search for a greener, more sustainable path to growth has been direr than ever. One of the findings that came up is the Energy Efficiency & conservation (EE&C) Promotion Financing Project. It has been built upon the sole purpose of achieving more long-lasting greener development of Bangladesh using state of the

Art quality assured EE&C materials. This is expected to bring down carbon and other greenhouse gas emissions by a drastic X___ Insert Value here ___ %, keeping in par with the demand and supply in the economy. In the December of 2015, in response to Bangladesh's seventh five-year plan. The Japanese Government (represented by JICA), extended the concessional loan (11.5 billion JPY) to the Government of Bangladesh (represented by Finance Division, Ministry of Finance) with an interest rate of 0.01%.

Three organizations are in direct contact with the System.

They are:

Administrative authority: Sustainable and Renewable Energy Development Authority (SREDA)

Implementing Financial Institution: Infrastructure Development Company Limited (IDCOL)

Implementing Financial Institution: Bangladesh Infrastructure Finance Fund Limited (BIFFL)

SUSTAINABLE AND RENEWABLE ENERGY DEVELOPMENT AUTHORITY (SREDA):

BACKGROUND OF SREDA:



SREDA implements renewable energy and energy efficiency issues of the Government. It promotes sustainable energy and growth using new technologies which it also pilots. It standardizes and labializes the products for RE and EE. It also initiates the expansion of new technologies and helps create a sound environment for the investors. Renewable Energy (RE) and Efficient Energy (EE)'s development and promoting, and gene capacity development is also looked after by SREDA. Furthermore, SREDA establishes a platform for national and international organizations to interact.

VISIONS OF SREDA:

SREDA is a champion of sustainable energy and paves the way for an energy conscious nation to guarantee energy security and to bring down carbon emission.

Mission of SREDA:

To organize and invest in the development of green energy and energy efficiency-

- * To increase the usage of renewable energy and reduce dependency on fossil fuel,
- * To take fitting actions for saving energy
- * To assess continuously for more potential renewable energy options

GOALS OF SREDA:

To fulfill its visions and mission, SREDA sets the following goals -

- * Increase Renewable Energy generation
- * Increase the proportion /amount of energy saving

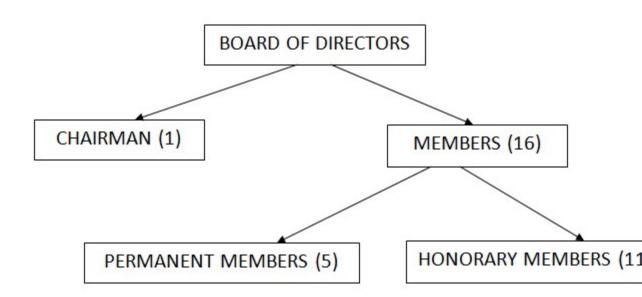
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OBJECTIVES OF SREDA:

To achieve the goals, the objectives are-

- * By the year 2020 10% (2000 MW) of the total power generation will be composed of renewable energy.
- * By the year 2021 the energy saving will be 15% and 20% by 2030 of total energy consumption.

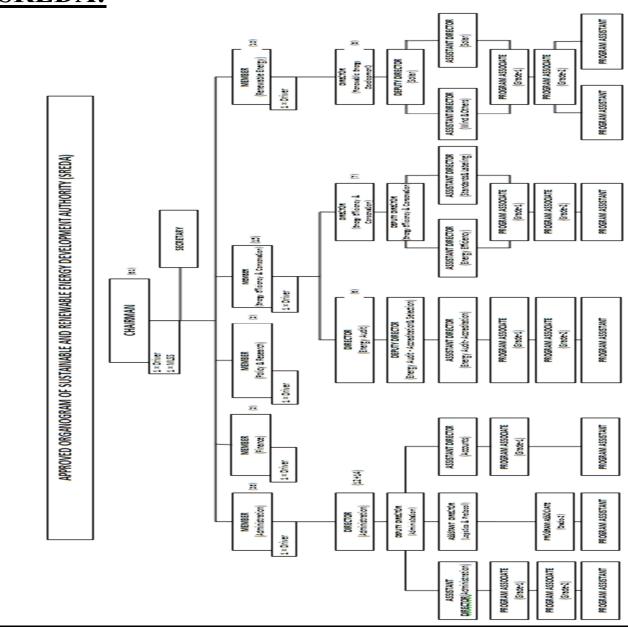
ORGANOGRAM OF SREDA:



BOARD STRUCTURE OF SREDA:

The general direction and management of the Authority is vested on the Board. The Board is constituted by Chairman and members, not more than sixteen. Chairman and five members are the honorary and full time members and eleven members are nominated by the government from different Ministries/Divisions and representatives from academicians, professionals, technical experts, non-government organizations (NGOs) and business communities. They are officiated for the term of 2 years from the date of their nomination. The Board takes all the policy decisions of the Authority.

ORGANIZATIONAL STRUCTURE OF SREDA:



BACKGROUND OF INFRASTRUCTURE DEVELOPMENT COMPANY LIMITED (IDCOL):



Infrastructure Development Company Limited (IDCOL), established on 14 May 1997 by the Government of Bangladesh. Bangladesh Bank licensed the company as a non-bank financial institution (NBFI) on 5 January 1998. Since its creation, IDCOL has been a major contender in bridging the financing gap for developing medium to large-scale infrastructure and renewable energy projects in the country. It is the current market leader in private sector energy and infrastructure financing in Bangladesh.

an eight-member independent Board of Directors comprising four senior government officials, three representatives from the private sector and a full time Executive Director and Chief Executive Officer manages IDCOL. It has a small and multi-skilled work force comprising financial and market analysts, engineers, lawyers, IT experts, accountants and environmental and social safeguard specialists. IDCOL's stakeholders consist of the government, private sector, NGOs, multilateral and bilateral institutions, academics and the people of Bangladesh at large.

VISION OF IDCOL:

To help ensure economic growth of the country and enrich the living standard of the inhabitants through maintainable and green investments.

MISSION OF IDCOL:

To reinforce and enhance the private sector's contribution in promotion, development, and financing of infrastructure as well as green energy, and energy efficient projects in a long lasting manner through public-private-partnership initiatives.

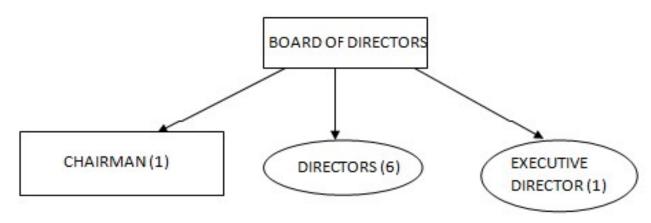
CORE VALUES OF IDCOL:

Global Standard and Competence: IDCOL is designed to deliver financial services to the clients keeping on par with global standards and competence.

Transparency and Integrity: IDCOL is a firm believer of keeping transparency and integrity in all tasks conducted by the Company.

Social Responsibility: IDCOL is inclined to play the role of a development financial institution that articulates social responsibility.

ORGANOGRAM OF IDCOL:



BANGLADESH INFRASTRUCTURE FINANCE FUND LIMITED (BIFFL):



BACKGROUND OF BANGLADESH INFRASTRUCTURE FINANCE FUND LIMITED (BIFFL):

Bangladesh Infrastructure Finance Fund Limited (BIFFL) is the largest Government owned Non-Banking Financial Institution in Bangladesh which has authorized capital and paid up capital of BDT 100 billion and BDT 20.10 billion respectively. It addresses the importance of infrastructure growth vis-à-vis not sufficient investment in that specific sector, with a foresight to raise awareness of an attractive environment for sustainable private investment.

As a portion of this, BIFFL brought to inception in 2011 as a special purpose vehicle to mobilize the PPP budget through financing infrastructure projects partnering with private sector investors.

Moreover, to keep up sustainable development, BIFFL is also dedicated to save the environment and use economically friendly actions in all aspects which are of its utmost consideration while prioritizing any investment transaction.

VISION OF BIFFL:

Increase progression of economic efficiency by harnessing the relative merits and strengths of Public and Private Sector via financing Infrastructure Projects.

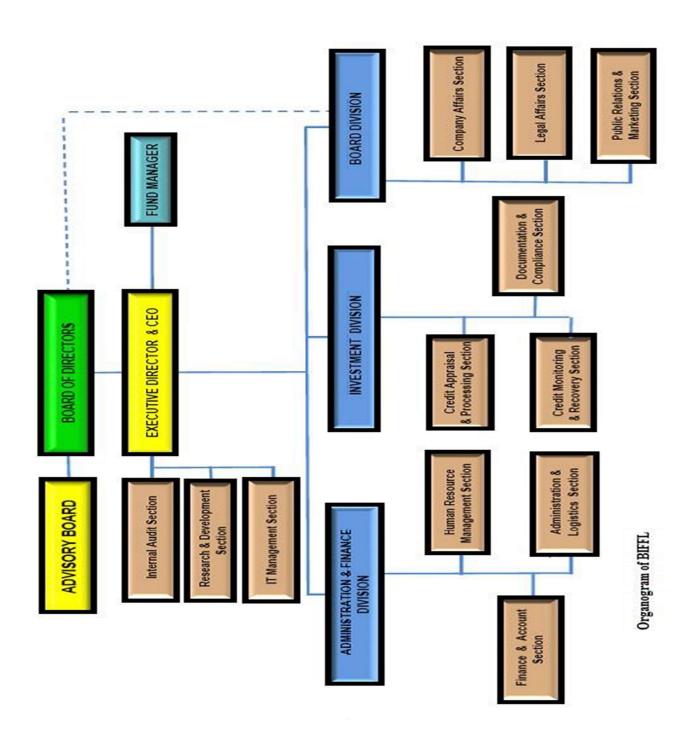
MISSION OF BIFFL:

- * To act as a professional Financial Institution by implementing the globally recognized best practices and sustaining the utmost level of moral and ethical standards.
- * To raise awareness of the country's economic growth by providing and encouraging Private Sector Investment in all infrastructure projects.
- * To be in support of sustainable economic growth of Bangladesh through facilitating Infrastructure Development.

GOAL OF BIFFL:

- * To facilitate long-term finance to critically vital infrastructure projects.
- * To accelerate co-financing from private financial sources.
- * To provide a unique vehicle for capital market development by exploring a number of avenues to capture domestic and foreign investment within the contexts of a robustly designed and well-governed investment vehicle.

ORGANOGRAM OF BIFFL:



OBJECTIVE OF THE PROJECT

The main objectives of the project are given below:

- To store and manage the progress of the project in the MIS.
- To record energy consumption and production related information in the MIS.
- To maintain the consistency and integrity of data.
- To speed up the collecting processes, and ensure data safety by using cheap encrypted secure online storage (Drobox) to allow data uploads.
- To automate the loan to process it efficiently.
- To reduce manual data entry.
- Ensure cleaner data by using software to check for and report errors in several phases.
- To reduce paperwork.
- Make the site more intuitive and add a chat bot to the site so as to make it more user friendly and ensure thorough information exchange from both sides.
- To speed up the loan process by processing in parallel.
- To speed up the meeting processes by using an online chat interface to conduct meetings between in-organization stakeholders and specific meetings with off-organization stakeholders.
- To avoid processing duplicate application.
- Making sure to keep a human level checking mechanism in the vital processes.
- Not storing sensitive data or personal information locally to avoid any casualties regarding security.
- Use artificial intelligence to get intuition from data and past data of the proponents so as to help make more conclusive decisions.

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Overall the main objective of the project is to propose and design a system where the stakeholders can get information, communicate with each other, make intuitive and solid decisions, get access and store information about the loan projects efficiently, and the data will be processed and handled finely to produce clean and validated data, without the risk of data loss and security casualty.

SCOPE OF THE PROJECT

In this section, we will describe the objectives of the project thoroughly for a clearer understanding of the project. Four main users have been identified in this system. Sub-project proponents, IFI, SREDA, and PD. We will zoom in on the activities they can do throughout this system in form of objectives.

Online form & Contact details:

Sub-project proponents and PDs can view the pre-screening application forms, technical prescreening application forms. They can also fill up all the forms online, where forms will have computerized validators to ensure the data is clean. They will also have a chat bot on the site to make sure all the details and information publicly available on the site can be provided in an intuitive user friendly manner so as to avoid data loss. And the chat bot can accept and handle general queries and forward the queries requiring more expert support. They will have access to all vital information both via chat and the website.

Checklists, annexes, documents, instruction manuals:

All fixed documents, checklists, annexes, and instruction files will be available as a softcopy both downloadable and live-viewable on the website. Those which need to be inputted data can be done online and tracked via appropriate parties.

File uploads:

Documents and files can be uploaded online to a secure and cost friendly web server (Drop Box) which will ensure greater security with documents and less paper to be managed and handled.

Name clearance:

Name clearance evaluation and the registration for the clients will be tracked by both IFI & SREDA. This will ensure no data loss, better evaluation, efficient for decision making and keeping better track for the progression of the cases.

Equipment List:

Sub-project proponents and PDs can go through the list for eligible Energy efficient equipment list for their convenience before applying for loans

Eligibility Check list:

Eligibility check list for the loans will be saved in the system for more accurate analysis by the IFIs and SREDA.

Notifying Rejection/Acceptance of Loan:

This system will enable the IFI and SREDA to make their decision and the software will automatically notify the clients of their rejection/acceptance of their cases via email and SMS. And if the case is rejected it will also let the client know the reason for rejection. Premade templates for the email and SMS will be filled with the IFI and SREDA's feedback. The clients will be asked to verify they received the notice via logging in to their account.

Activities of IFI Employee/Manager/B.O.D:

This system will have separate secure accounts and privileges for managers, employees and Board of directors of IFI to evaluate, save results and notify the rejection/acceptance of the loan cases.

Activities of SREDA Employee/Manager/B.O.D:

SREDA employees, B.O.D will also be able to monitor the processing of the loan cases and track the projects for which loan has been granted, it can also save and modify reports.

Templating and Notifying System:

Premade templates will be available, which will be filled based on the in-organization user's inputs on the site. This will be rendered as email and SMS and sent to those in concern. Laborious tasks like reminding, informing and requesting will be automated using this part of the system.

Chat interface:

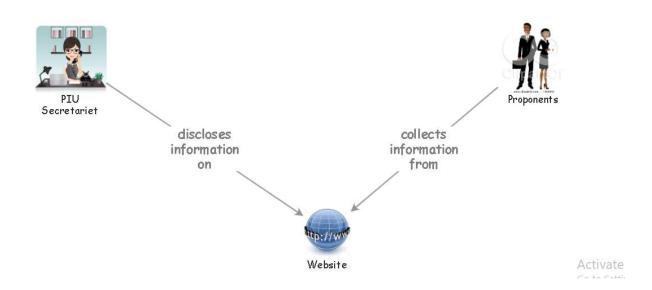
Meetings and communication can be conducted online via the chat interface (supporting both text, voice, and video chats, and window and file sharing). This will speedup up the setup time taken to conduct in-person meetings, and can be recorded and copies will be send to stakeholders to be reviewed in the situation some information needs clarifying.

Artificial intelligence:

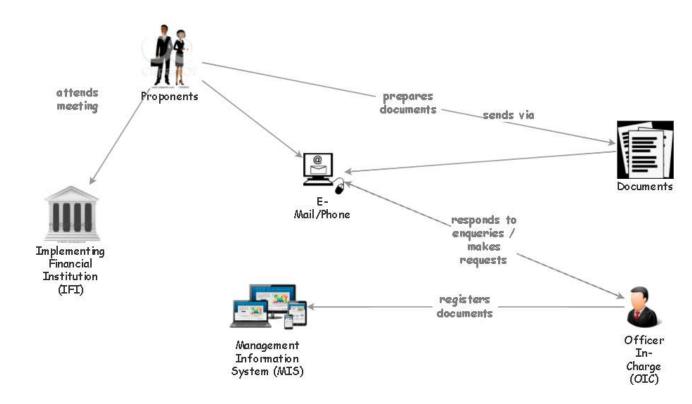
Artificially intelligent software will be fed past data gathered on the clients and will generate predictions based on them to help those in concern be more confident in their decisions.

EXISTING SYSTEM WITH RICH PICTURES

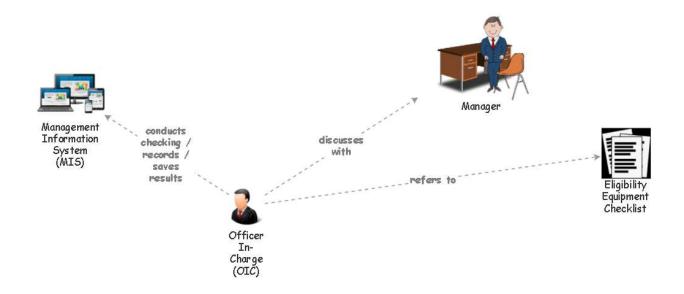
RICH PICTURE FOR PROCESS 11 – PREPARATION



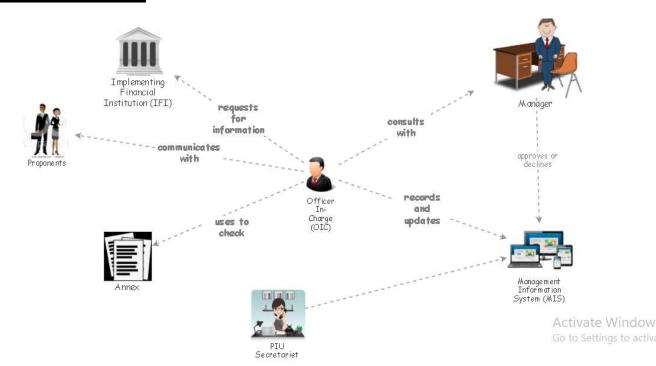
RICH PICTURE FOR PROCESS 12 – RECEIVING LOAN APPLICATIONS



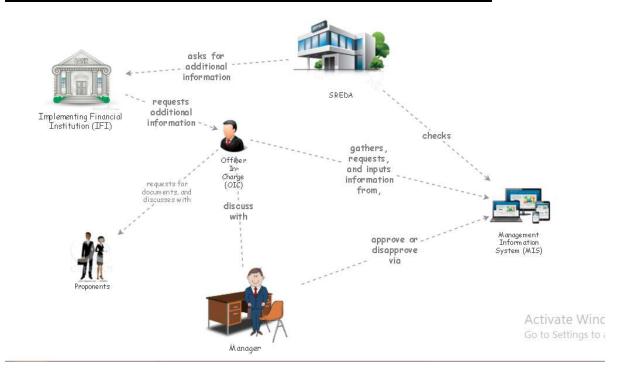
RICH PICTURE FOR PROCESS 13 – PRELIMINARY ELIGIBILITY CHECKING



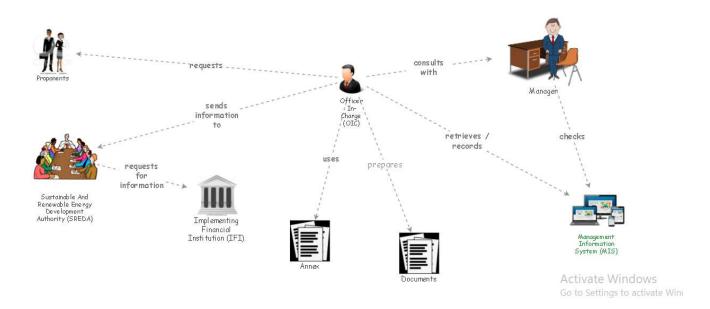
RICH PICTURE FOR PROCESS 14 – NAME CLEARANCE



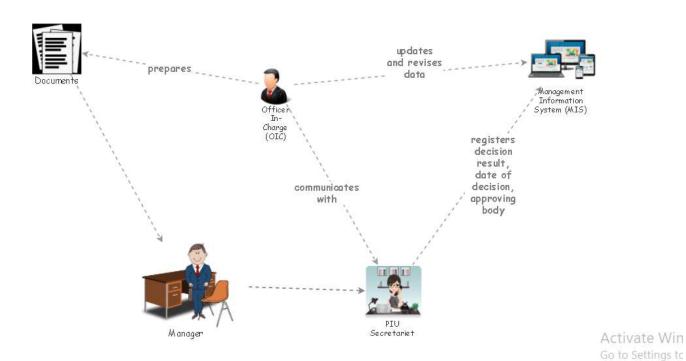
RICH PICTURE FOR PROCESS 15 -



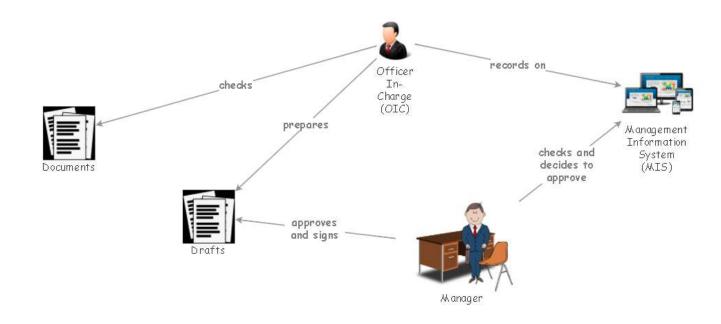
RICH PICTURE FOR PROCESS 18 –



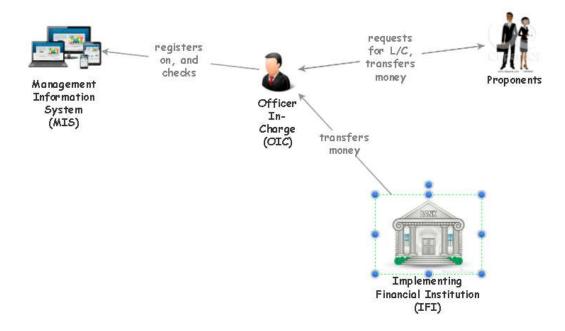
RICH PICTURE FOR PROCESS 21 -



RICH PICTURE FOR PROCESS 22 –



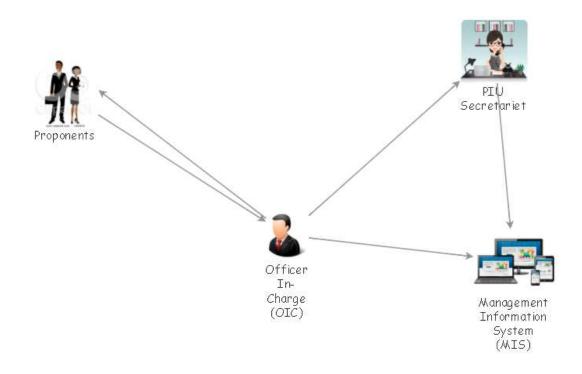
RICH PICTURE FOR PROCESS 23 –



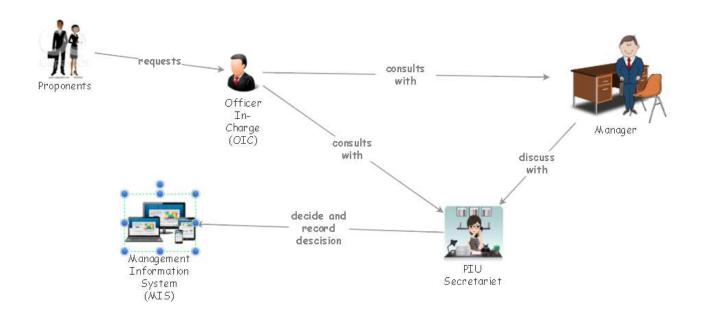
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RICH PICTURE FOR PROCESS 24 –

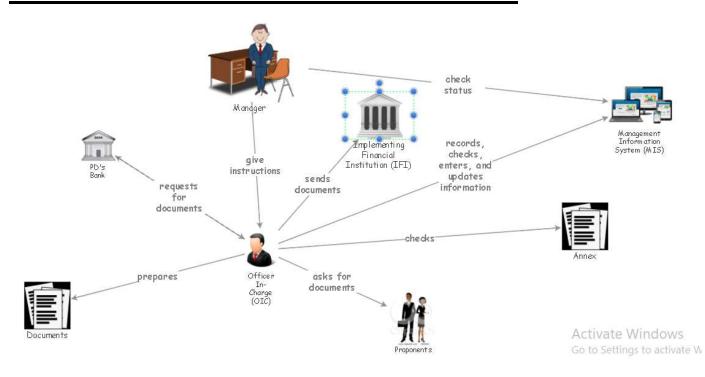
RICH PICTURE FOR PROCESS 25.1 –



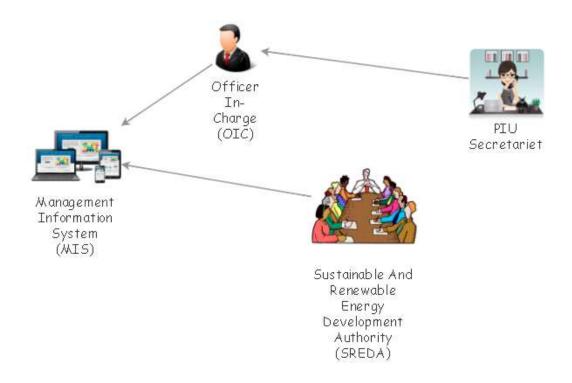
RICH PICTURE FOR PROCESS 26.1 –



RICH PICTURE FOR PROCESS 26.2 -



RICH PICTURE FOR PROCESS 33.2 –



FOR EXISTING SYSTEM:-PART I

A-TYPE LOAN: FORMULATION AND IMPLEMENTATION

A-TYPE LOAN APPRAISAL PROCEDURE

Proces	Process Name	Existing Six System Elements					
s Numb er		Human	Non Computin g Hardware	Computi ng Hardwar e	Softwa re	Databa se	Comm. Network
11	Preparation	PIU Secretariat [Provides information]					IFI's Website
12	Receiving Loan Application s	Officer in charge[Respo nds to queries, Register details, Arrange and Conduct meeting	Forms, Documen ts (Annex 1, 2, 3 and 4), Financial Statement s, Credit Report), Printer, Pen		MIS		Phone, Email,
13	Preliminary Eligibility Checking	Officer in charge [Check	Annexes, Printer, Pen		MIS		Applica ble

		Annex 4 and Documents, Record results, Discuss with manager and/or SREDA, proceed to Name Clearance if applicable]			
14	Name Clearance	Officer in charge [Check documents, Collect information, Register result, Submit to Manager, Communicat es with Proponents, Recheck documents, Informs results], Manager [Discussion], PIU Secretariat [Identifies and registers products and case]	Forms, Documen ts, Annexes [Annex 5, 2], Printer, Pen	MIS	Phone
15	Submit Request to SREDA for NOC	Officer in charge	Forms, Documen ts, Annexes (Annex 2 and 11), Printer, Pen	MIS	Telepho ne

		documents, Registers application, Label additional documents, Record dates, Conducts offsite check], Manager [Goes to offsite checking, Approves or disapproves case]			
21	Loan Decision	Officer in charge [Prepares documents, Collects information from sources, Reports details, Notifies PIU Secretariat and collects documents, Discusses with PIU Secretariat], Manager [Approve or Disapprove, Confirm information validity], PIU Secretariat [Decides on Loan, Discusses with Manager]	Pen, Paper, Printer, Forms, Documen ts [Annex 8-1 or 8-2, 9, 10]	MIS	Telepho

22	Documentat	Officer in	Documen	MIS	Telepho
	ion	Charge	ts,		ne
	or loan	[Prepares	Applicati		110
	or roun	documents,	ons		
		validates	Olis		
		conditions			
		and status,			
		Contacts with			
		lawyer,			
		Register			
		application			
		details,			
		Check if can			
		be changed to			
		subproject			
		and give			
		approval].			
		Manager			
		[Sanctions			
		loan, Attests			
		application, Gives			
22	Disburseme	Approval] Officer in	Danna	MIS	Talamba
23			Documen	IVIIS	Telepho
	nt	Charge	ts,		ne
		[Request to	Pen,		
		open account,	Paper, Printer		
		Register	Printer		
		account,			
		Negotiate			
		conditions,			
		Verify status,			
		Transfer			
23.1	Completion	money] Officer in		MIS	
23.1	Completion of	charge		IVIIS	
	Disburseme	[Record date,			
	nt	mark			
	111	completion],			
		completion,			
		Manager			
		[Verify			
		completed]			
ĺ	<u> </u>	completed			

24	Checking repayment status	Officer in Charge [Ensure bank account registered with IFI, Draft repayment schedule, conduct transactions with subproject owner's bank, Check repayment and request regular payment, Report to manager monthly and immediately based on conditions], Manager [Check repayment]		MIS	
		Manager			
24.1	Completion of Repayment	Manager [Confirm balance], Officer in Charge[Reco rd balance]		MIS	

PART II

B-TYPE LOAN: FORMULATION & IMPLEMENTATION

B-TYPE LOAN FORMULATION IMPLEMENTATION

PROCEDURE

Process	Process	Existing Six System Elements					
Number Name	Name	Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network
25.1	Preparing Eligible Application List	Officer in Charge [Request PD for application, Verify application, discuss with SREDA PIU Secretariat to validate eligibility]	Documents, Paper, Pen, Printer, Forms, Applications		MIS		Telephone
25.2	Participating Distributor(PD) Selection And Appointment	PIU Secretariat [Formulate committee, consult with PD, Handle application, Check	Documents, Paper, Pen, Printer, Forms, Applications		MIS		Telephone

		applications for			
		eligibility]			
26.1	Approving a PD for APO	Officer in Charge [Request payment, Consult with Manager and PIU Secretariat], PIU Secretariat [Make decisions], Manager [Engages in discussion]			Telephone
26.2	Advance Payment Procedure	Officer in charge [Request documents, Submit requests, Record transactions and application, Verify transaction, Create repayment schedule, Register dates], Manager [Validate, Make decisions, Confirm, Discuss]	Documents [Annex 26, 29], Paper, Pen, Printer, Forms, Applications	MIS	Telephone
27	Sales Record Keeping	Officer in Charge [Instruct PD,	Documents, Printer	MIS	Telephone

	T	1	T	1	
		Manage MIS, Submit documents to IFI]			
28	Loan Disbursement To PDs (Reimbursement option)	Officer in Charge [Instructing proponents, check and approve requests, communicate with PD, inform PD], Manager [Browse approval list, discuss with officer, approve or disapprove]		MIS	Telephone
29.1	Adjustment Against APO	Officer in charge		MIS	
29.2	Repayment	Officer in charge [Confirm process is being conducted properly, Record data, Check repayment		MIS	Telephone

status and
ask for early
repayment if
late,
Consult with
manager if
failing to
follow
guidelines
continue],
Manager
[Deny
application
for serious
cases]

PART III

MONITORING FOR A-TYPE LOAN

A -TYPE LOAN MONITORING PROCEDURE

Process Number	Process Name	Existing Six System Elements						
		Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network	
30	Managing Sub-project Implementation Plan	Manager [Prepare draft, Update Plan upon request from SREDA or JICA]	Pen, Paper, Printer, Documents (Annex 104)					

31	Registration of User-ID and Password	Officer in Charge [Issues User ID and Password, Confirm login]		MIS	
32.1	Document and Evidences on Purchasing and Installation	Officer in Charge, Manager	Documents	MIS	Telephone
32.2	On-site Inspection	Officer in Charge, Manager		MIS	Telephone
32.3	Requesting sub-project owner to submit required data and to cooperate for inspection	Officer in Charge [On Quarterly basis request Proponents to follow instruction set, Verify that all data submitted],		MIS	Telephone

33.1	Environmental	PIU	Annex 34,	MIS	Telephone
	And Social	Secretariat	Printer,		
	Performance	[Request ENV	Documents		
	Report	Officer to			
		prepare			
		Report],			
		Environmental			
		and Social			
		Considerations			
		Officer			
33.2	Environmental	PIU	Annex 39,	MIS	Telephone
	And Social	Secretariat	Printer,		_
	Management	[Request ENV	Documents		
	System(ESMS)	Officer to			
	Checklist	prepare			
		Report],			
		Environmental			
		and Social			
		Considerations			
		Officer			

PART IV

MONITORING FOR B-TYPE LOAN

B-TYPE LOAN MONITORING PROCEDURE

Process Number	Process Name	Ex	kisting Six Sys	stem Element	S		
	IName	Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network
34	User- Registration For PDs	Officer in charge for Component [Make sure that the PDs are issued with user-ID and password]			MIS		
35.1	Installation Inspection Reporting	Officer in charge for Component [Instruct proponents, check transaction status]	Documents		MIS		Telephone
35.2	Additional Information From PDs	Manager			MIS		Telephone

PART IV

MONITORING FOR B-TYPE LOAN B-TYPE LOAN MONITORING

PROCEDURE

Process Number	Process Name	Ex	kisting Six Sys	stem Element	s		
Number	Name	Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network
34	User- Registration For PDs	Officer in charge for Component [Make sure that the PDs are issued with user-ID and password]			MIS		
35.1	Installation Inspection Reporting	Officer in charge for Component [Instruct proponents, check transaction status]	Documents		MIS		Telephone
35.2	Additional Information From PDs	Manager			MIS		Telephone

Part V Reporting

Process	Process	E	xisting Six Sy	stem Element	S		
Number	Name	Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network
42. 1	Quarterly Report (QPR) and Annual Report (AR)	PIU Secretariat [Prepare documents], Manager [Validate reports]			MIS		
42.2	Ongoing Sub-Projects Summary and Financial Report (Annex 367) and Statement of Expenditure	Officer in charge / PIU secretariat / Manager [Prepares reports]	Documents and Reports				Telephone
43.	Supplemental Information	Officer in Charge [Request for financial statements]			MIS		Telephone
44.	Incidental Reports	PIU Secretariat / Officer in Charge, Manager	Printer, Document				

Problem Analysis Template A Type Loan

Process	Process	Stakeholder(s)	Concern	Analysis	Proposed
Number	Name		(Problem)	(Reason of the Problem)	Solution
11	Preparation	PIU Secretariat, Proponent	Gathering information from the Website not completely intuitive.	The Users might have issues or can	Add a Chabot (IBM Watson Conversation Service : Free/Cheap Premium, state of the art technology, to the interface to make the process of informing more user friendly. Respond to basic queries 24/7 using the Chabot. If Chabot cannot answer the query, forward it to the Officer In Charge. Allow Bot to send information on request from Site and to Register basic applications. Set an option to send details and information from website to those of concern via
					email with the

					click of a buttonAllow
					proponent to
					register and
					submit
					application
					forms online.
					Add basic
					validators to do
					basic error
					checking on the
					information.
					Send
					verification
					email, SMS to
					proponents
					when they
					register.
12	Receiving	Officer in	Responding	Basic regular	After receiving
	Loan	charge,	to basic	queries which	primarily
	Applications	Proponents,	queries is	can take up a	validated
			time	lot of time and	online
			consuming	energy (both	application
			and	physical and	forms,
			laborious, Regular	psychological) from the	automatically ask the
			tasks of	Officer.	proponents to
			manual data	Officer.	send the
			entry and	Manually	required
			requesting	requesting	documents via
			are time	proponent to	email.
			consuming,	send	
			Meetings	documents is	The sensitive
			require time	time	documents
			management	expensive and	must be sent
			to be	the Officer can	via the
			convenient	be late to	DropBox
			for both	request the	option on the
			parties.	information	upload page of
				after getting	the MIS.
				the forms. Can	Enable the
				also miss out	OIC to feed the
				some of the	data to the MIS
				applicants due	which will only
				to the manual	record and

				nature [OIC]	accept the
				Manually	required details
				enters the	to fill its fields
				registration	automatically.
				details and	.1
				data to MIS	As the
				which can be	applications
				prone to errors	are done
				and have	online, using
				incomplete	soft copies, the
				data.	expense will be lowered.
				-Printing forms and	lowered.
				forms and documents are	Use the Chabot
				an expensive. And can be	to respond to basic to mid-
				misplaced or	level queries
				misfiled.	for faster, more
				11110111001	computerized
				It can be tough	process.
				to set up a	1
				venue of the	Use the Chat
				meeting at a	interface
				time	(Slack) to share
				convenient for	screens, and
				both parties.	video and
				_	audio chat
					online to hold
					meetings in
					case it is hard
					to find a
					convenient
					time so as to
					speed up the
		- 20			procedure.
13	Preliminary	Officer in	[OIC]	Manually	Upon getting
	Eligibility	charge,	Manually	going over	the required
	Checking	Manager	going over	Annex to	information,
			Annex and	identify	automate
			manually	equipment	identifying the
			conducting	code.	equipment
			eligibility	Manually	using software.
			checking	conducts	- Automate the
			using	eligibility	eligibility
			checklist.	checking	checking using

			Manual save of data. is time consuming, and prone to errors.	using checklist. Manual save of data. These are all time consuming, and prone to errors.	software and machine learning. Keep OIC for overviewing the process to add human expertise.
					Upon receiving OIC confirmation, save it Automatically send details to manager to confirm eligibility.
					Discuss on the online chat interface if more clarification required.
					Keep option to request for SREDA's expertise.
14	Name Clearance	Officer in charge, Financial institutions, Manager, PIU	[OIC] Manual checking of items [- Credit Rating	Due to the large number of documents to be read through, time is likely to be	Computerize the process to do this checking via Software. –
		Secretariat, IFIs	Report, and; - Financial Statement.] in Name Clearance Evaluation Sheet is time consuming	increased, and errors also increase. Regular tasks like requesting and collecting Documents	Keep a basic template ready to edit, fill up, and send other Financial Institutions via email to request

	and prone to	should be	information on
	errors.	automated so	Proponent
		as to reduce	when required.
	Manual	bottleneck.	Also
	requesting		communicate
	and		for additional
	collecting of		details
	Documents		Automate the
	is time staking.		checking using software and
	staking.		machine and
			learning.
			rearming.
			Keep OIC for
			overviewing
			the process to
			add human
			expertise. OIC
			confirms the
			processed data
			and decides to
			send it to the PIU Secretariat
			or decline it
			If OIC
			confirms,
			submit
			automatically
			to Manager for
			approval
			[Manager]
			Discuss with
			on the
			discussion with
			Manager, and
			automatically
			[Manager] Discuss with OIC over an online chat interface which enables screen sharing and video Save reasons for not confirming manually based on the discussion with Manager, and

		based on the
		computerized
		checking. From
		this
		information fill
		up a template
		mail informing
		proponent why
		rejected. Send
		it and ask for
		confirmation if
		want to close
		application If
		Proponent
		responds to the
		'Yes, cancel
		application',
		automatically
		cancel it on
		MIS, or renew
		on 'No, renew
		application.'
		click
		Automatically
		show list of
		approved items
		using MIS
		feature
		Automatically
		inform
		Proponent on
		the result via E-
		mail.
		Use prebuilt
		Use prebuilt email
		templates with
		customizable
		fields to
		request for
		documents via
		mail and use
		Drobox to
		collect them.
		concet them.

15	Submit Request to	Officer in charge,	Manually checking	Regular tasks like these,	[OIC] Receive soft copies of
15			•	_	
					using softcopies, electronically attested by OIC.
					Fill up premade templates to send in the event if the SREDA asks

					for more documents.
					Send the filled up mail to Proponent.
					Provide warnings on the Application form website to enter details carefully and add help tooltips so as to ensure less errors on the part of the Proponent. Ensuring less applications getting rejected due to multiple editing.
					Make the MIS interface such that those of concern do not have to manually do
					extra work to accomplish regular tasks (i.e. adding a button and a checklist to automatically request or submit for
19	Forwarding	Officer in	Time	Writing up	those checked documents). Automatically
-/	NOC or Rejection	charge, Proponent,	expensive and takes up	emails or explaining	fill up templates from

	Letter to Proponent	SREDA	human resources	why rejected when there are	information from the
			and inefficient to explain reasons for rejection via email manually. Lack of convenience in time from both parties to hold a meeting to explain rejection.	many applications to be dealt with is exhausting and will get inefficient. Lack of convenient time will result in potential applications being delayed or rejected applications being postponded.	application forms and from the OIC and render an email and send to Proponent informing and explaining about rejection. Allow SREDA to click lists of reasons to ensure faster process, also including a text
			Submitting documents in person is time consuming and cost inffective.	It is expensive to move documents from one place to another and takes time.	box with additional explanation if required. Hold the meeting via chat interface if required to explain, or else explain via email. Sensitive
					documents handled via DropBox.
20.1	Due Diligence	Officer in charge, Manager, IFI	Manually checking documents, and applications, verifying them is time and cost expensive and	Regular tasks like these, which require no human expertise and are laborious and mistakes can be made while entering	Use software to check Due Intelligence Type Check Sheet Annex 6. OIC Confirms the check.

			inefficient and not always accurate.	and checking data.	Discuss with Manager if required. Discuss via Chat interface
20.2	Conducting Due Diligence	Officer in charge, IFIs, Proponents, Manager	Manually checking documents, and applications, verifying them and requesting for more documents, and registering dates is time and cost expensive and inefficient and not always accurate. Information not retained after on-site check.	Due to the sheer volume of work and doing regular tasks, simple but critical steps might be misexecuted. If further clarification needed on the on-site meeting, the information may not always be accurately portrayed from memory.	Keep regular main line of contact with the Proponent via mail Take records, and pictures with a camera phone while conducting onsite due intelligence.
21	Loan Decision	Officer in charge, Bangladesh Bank, PIU Secretariat, Manager	Manually preparing and registering and checking documents, and requesting for more documents, and registering dates is time	Due to the sheer volume of work and doing regular tasks, simple but critical steps might be misexecuted and be inaccurate. Valuable time spent doing	Automate the process of preparing Credit report and Loan decision sheet, Credit Report Grade (CRG), CIB Report, Loan Term Sheet, using software which will generate the reports with

			and cost expensive and inefficient and not always accurate.	these simple tasks.	the data entered by OIC regarding the Due intelligence. Discuss with Manager using chat interface if required Inform PIU upon status via E-mail (and ask for confirmation if
					received mail within 3 days). If no reply, call. Check data entered or updated is accurate using software checking mechanisms.
22	Documentation or loan	Officer in charge, Proponent / Lawyer, Manager	cost	Regular tasks like this take up time and energy from the officer which could be utilized elsewhere requiring his skills more.	Use software to draft documents on Loan. If certain conditions are met (checked via software), automatically use a software to send email requesting proponent to be called subproject owner (if required,

				show confirm
				via manager).
				Automatically record the dates using software interface.
				Automatically render the mail for most means of communication using software.
				Allow officer to see the rendered mail before sending if critical.
				Send mail to parties in question automatically or with the push of a button if human expertise required.
23	Disbursement	Officer in charge, Sub-project owner, IFI		Automatically render the mail to request for documents and payments using software. Send mail to proponent, and proponent's bank.
				Negotiate with sub-project proponent

					using chat interface.
					Register the dates automatically using software incorporated to MIS.
					Automatically send periodic mail reminders upon payment details, number of days and amount remaining, and late payment.
					Automatically report to Manager on repayment status and late payment via mail after receiving information.
					Receive feedback from Manager using mail or chat interface.
23.1	Completion of Disbursement	Officer in charge, Manager	Manually recording date and confirming verification is time and	Regular tasks like these take away time and are a strain to human mind. Can be prone	Automate the process of recording the date via MIS interface.
			resource consuming.	to errors doing them manually.	Automatically verify the checking process via

					software and send results with test data to party of concern to verify.
24	Checking repayment status	Officer in charge, Manager	Manually sending regular reminders is laborious and cost expensive.	Manually sending regular reminders based on existing preconditions set on the status of repayment is laborious and cost expensive.	Automate this process using software to automatically send mails showing status to those of concern at periodic intervals.
24.1	Completion of Repayment	Officer in charge, Manager			Send mail to proponent confirming completion.

B Loan Type

Process	Process	Stakeholder	Concern	Analysis	Proposed
Number	Name		(Problem)	(Reason of the Problem)	Solution
25.1	Preparing Eligible Application List	Officer in charge, PIU Secretariat, SREDA, Proponent	Manually requesting and managing applications is time consuming and cumbersome. Going to meet with SREDA in person is time consuming and cost ineffective.	It takes time to communicate via email and request and validate documents. Due to traffic congestion and cost of transportation, it can be expensive (in terms of both — time and	Request PD for application via mail. Allow them to fill up application online Software checks the appliance with list and forwards applicable application to SREDA Communicate

25.2	PDs selection	PIU	Manually	Large number	[PIU and OIC] via Chat interface.
	and appointment	Secretariat, PD Selection Committee, SREDA, JICA	checking and verifying applications with annex is prone to errors and time loss.	of documents requiring checking manually via humans is prone to errors, and will take up a lot of time.	applicants to upload data in Dropbox. Use software to validate data and show findings based on evidence to the Secretariet.
26.1	Loan Disbursement to APO	Officer in charge, PIU Secretariat, Manager	Time and cost expensive to arrange meeting.	It takes time and money to arrange meeting with parties of concern, where the time is convenient for everyone and to travel to the meeting.	[OIC-C2, Manager, PIU] Consult via mail, and chat interface.
26.2	Advance Payment Procedure	Officer in charge, Manager	Time and cost expensive to arrange meeting.	It takes time and money to arrange meeting with parties of concern, where the time is convenient for everyone and to travel to the meeting.	[OIC-C3] Request for forms and documents via mail. Sensitive documents via DropBox. Automate the repayment schedule using software. [Manager] Use chat

					interface, mail, to consult.
27	Sales Record Keeping	Officer in charge, IFI	Time and cost expensive to physically submit reports and documents to IFI.	Physically transporting documents and reports to IFI's office every month requires time and money.	Submit documents via email, if sensitive, via DropBox. Use software to automate this monthly process of generating and sending documents.
28	Loan Disbursement to PDs	Officer in charge, Primary Distributor, Manager,	Time expensive and cumbersome to check payment every month manually.	Time could be saved if did not had to check and request manually. Might even miss out issues due to human error.	Do the validating process via software, software will also make monthly requests.
29.1	Adjustment against APO(Advance Payment Option	Officer in charge			[OIC] Automate via adding validator to check and inform about excessive adjustment.
29.2	Repayment	Officer in charge, Primary Distributers, Manager	Manually checking repayment status and requesting payments is time consuming. Meeting and contacting	Checking repayment status manually is prone to human errors and time can also be a factor.	Automate the checking process via software which will also send automated emails to those of concern in case

	with manager	Meeting the	something
	is time and	manager in	goes out of
	cost	person or	order.
	expensive.	contacting to	
		discuss with	Consult with
		them takes	manager via
		resources.	chat interface
			or email.

<u>A-TYPE LOAN MONITORING PROCEDURE</u>

Process Number	Process Name	Stakeholder	Concern (Problem)	Analysis (Reason of the	Proposed Solution
				Problem)	
30	Managing Implementation Plan	SREDA, JICA, Manager			
31	Registration of User – ID & Password	Officer in charge, Primary Distributer	Manual issuing of User ID and Password not effective.	Manually issuing User ID and Password on MIS is time consuming and cumbersome. And can be prone to errors thus might need clarifying.	When starting the process via MIS, ask proponents in concern to sign up for account, and require them to verify via phone and email (2 – factor) and email to login and confirm.
32.1	Document and Evidences of Purchasing and Installation	Officer in charge[Instruct proponent, confirm and verify documents submitted,], Sub-project owners, IFI,	Time and cost expensive setting up meeting with Manager. Manual verification prone to	It takes up time and resources to find a suitable time for Officer and Manager to meet and also to discuss.	Consult with Manager via email and chat interface. Verify documents via software.

		Manager [Approve or disapprove, instruct officer]	errors and takes time.	Manually verifying documents can be inaccurate and time consuming.	
32.2	On – Site Inspection	Officer in charge, SREDA, Manager, Proponents	Time and cost expensive setting up meeting with SREDA.	It takes up time and resources to find a suitable time for Officer and SREDA to meet and also to discuss.	Set up the meeting via the chat interface.
32.3	Requesting sub project owners to submit required data and to cooperate for inspection	Officer in charge			
33.1	Environment and Social Consideration	PIU Secretariat, Environmental and Social Considerations Officer, SREDA, JICA	Time consuming to manually ask to prepare report.	Regular periodic tasks like requesting to prepare report takes time, and can be missed out by Secretariat.	Automate the process of periodically asking the ENV officer to prepare report via mail and also send them required resources.
33.2	Environment and Social Management System	PIU Secretariat, Environmental and Social Considerations Officer,	Time consuming to manually ask to prepare report.	Regular periodic tasks like requesting to prepare report takes time, and can be missed out	Automate the process of periodically asking the ENV officer to prepare report via mail and also send them

	by	required
	Secretariat.	resources.

B-type Loan Monitoring Procedure

n of	f Solution
<u>ı)</u>	
	Automate the
nts	instruction
t have	e process via
due to	1
other	
hical	(web, email,
	chat bot).
time	Allow
ing to	
same	documents
ions	via DropBox.
me to	,
ent	
111.	
	time to

Monthly Operation

Process	Process	Stakeholder	Concern	Analysis	Proposed
Number	Name		(Problem)	(Reason of	Solution
				the	
				Problem)	
36	Resister				
	Technical				
	Data for				
	Newly -				
	approved				
	sub-project				

37	Check		
	Progress of		
	Sub- Project		

Quarterly Operation

Process	Process	Stakeholder	Concern	Analysis	Proposed
Number	Name		(Problem)	(Reason of	Solution
				the	
				Problem)	
38	Collecting				
	data and				
	Calculating				
	conserved				
	Energy				
39	B- type Loan				
	Appliance				
	Eligibility				
	Assessment				

Annual Operation

Process	Process	Stakeholder	Concern	Analysis	Proposed
Number	Name		(Problem)	(Reason of	Solution
				the	
				Problem)	
40	Annual				
	Implementation				
41	Organize an				
	annual report				
	meeting of the				
	Steering				
	Committee				

Reporting

Process	Process	Stakeholder	Concern	Analysis	Proposed
Number	Name		(Problem)	(Reason of	Solution
				the	
				Problem)	
42.1	Quarterly	PIU			
	Report and	Secretariat,			
	Annual	Manager			
	Report(AR)				
42.2	Ongoing Sub	PIU			
	Project	Secretariat			
	Summary and	/ Manager			
	Financial				

	Report (Annex 367) and Statement of Expenditure	/ Officer in charge			
43	Supplemental Information	Officer in charge	Cost of phone calls.	Manually calling and requesting for documents is time and cost expensive.	Request via mail and allow uploading to Dropbox.
44	Incidental Reports	PIU Secretariat / Officer in Charge	Time and cost expensive	Manually preparing incidental report is time and cost expensive.	Automate and computerize the report generation using software.

FOR PROPOSED SYSTEM: PART I

A-TYPE LOAN: FORMULATION AND IMPLEMENTATION

A-TYPE LOAN APPRAISAL PROCEDURE

Proces	Process Name	Exis	Existing Six System Elements						
Numb er	Human	Non Computin g Hardware	Computi ng Hardwar e	Softwa re	Databa se	Comm. Network			
11	Preparation	PIU Secretariat [Provides information]					IFI's Website		
12	Receiving Loan Application s	Officer in charge[Respo nds to queries, Register details, Arrange and Conduct meeting	Forms, Documen ts (Annex 1, 2, 3 and 4), Financial Statement s, Credit Report), Printer, Pen		MIS		Phone, Email,		
13	Preliminary Eligibility Checking	Officer in charge [Check Annex 4 and Documents, Record results,	Annexes, Printer, Pen		MIS		Applica ble		

		Discuss with manager and/or SREDA, proceed to Name Clearance if applicable]			
14	Name Clearance	Officer in charge [Check documents, Collect information, Register result, Submit to Manager, Communicat es with Proponents, Recheck documents, Informs results], Manager [Discussion], PIU Secretariat [Identifies and registers products and case]	Forms, Documen ts, Annexes [Annex 5, 2], Printer, Pen	MIS	Phone
15	Submit Request to SREDA for NOC		Forms, Documen ts, Annexes (Annex 2 and 11), Printer, Pen	MIS	Telepho ne

		Submit to SREDA], Manager [Discuss, Approve], SREDA [Approve, Disapprove, Set conditions, Request for additional documents from IFI]			
19	Forwarding NOC or Rejection Letter to Proponent	Officer in charge [Checks,	Letter, Documen ts, Printer	MIS	Telepho
20.1	Due Diligence	Officer in Charge [Inspects Data], Manager [Verifies Data]	Sheets, Paper, Printer, Forms, Pen	MIS	Telepho ne
20.2	Conducting Due Diligence	Officer in Charge [Requests documents, Registers application,	Documen ts [Annex 7]	MIS	Telepho ne

	Label additional documents, Record dates, Conducts offsite check], Manager [Goes to offsite checking, Approves or disapproves			
21 Loan Decision	case] Officer in charge [Prepares documents, Collects information from sources, Reports details, Notifies PIU Secretariat and collects documents, Discusses with PIU Secretariat], Manager [Approve or Disapprove, Confirm information validity], PIU Secretariat [Decides on Loan, Discusses with Manager]	Pen, Paper, Printer, Forms, Documen ts [Annex 8-1 or 8-2, 9, 10]	MIS	Telephone
Documentation or loan		Documen ts,	MIS	Telepho ne

		documents, validates conditions and status, Contacts with lawyer, Register application details, Check if can be changed to subproject and give approval]. Manager [Sanctions loan, Attests application, Gives Approval]	Applicati		
23	Disburseme	Officer in	Documen	 MIS	Telepho
	nt	Charge [Request to open account, Register account, Negotiate conditions, Verify status, Transfer money]	ts, Pen, Paper, Printer		ne
23.1	Completion of Disburseme nt	Officer in charge [Record date, mark completion], Manager [Verify completed]		MIS	
24	Checking repayment status	Officer in Charge [Ensure bank account registered		MIS	

		with IFI, Draft repayment schedule, conduct transactions with sub- project owner's bank, Check repayment and request regular payment, Report to manager monthly and immediately based on conditions], Manager [Check repayment status and give additional instructions]			
24.1	Completion of Repayment	Manager [Confirm balance], Officer in Charge[Reco rd balance]		MIS	

PART II

B-TYPE LOAN: FORMULATION & IMPLEMENTATION

B-TYPE LOAN FORMULATION IMPLEMENTATION

PROCEDURE

Process Number	Process Name	Existing Six System Elements						
		Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network	
25.1	Preparing Eligible Application List	Officer in Charge [Request PD for application, Verify application, discuss with SREDA PIU Secretariat to validate eligibility]	Documents, Paper, Pen, Printer, Forms, Applications		MIS		Telephone	
25.2	Participating Distributor(PD) Selection And Appointment	PIU Secretariat [Formulate committee, consult with PD, Handle application, Check	Documents, Paper, Pen, Printer, Forms, Applications		MIS		Telephone	

		applications			
		for			
		eligibility]			
26.1	Approving a PD	Officer in			Telephone
	for APO	Charge			
		[Request			
		payment,			
		Consult with			
		Manager and			
		PIU			
		Secretariat],			
		PIU Secretariat			
		[Make			
		decisions],			
		Manager			
		[Engages in			
		discussion]			
26.2	Advance	Officer in	Documents	MIS	Telephone
	Payment	charge	[Annex 26,		1
	Procedure	[Request	29],		
		documents,	Paper,		
		Submit	Pen,		
		requests,	Printer,		
		Record	Forms,		
		transactions	Applications		
		and			
		application,			
		Verify			
		transaction, Create			
		repayment schedule,			
		Register			
		dates],			
		Manager			
		[Validate,			
		Make			
		decisions,			
		Confirm,			
		Discuss]			
27	Sales Record	Officer in	Documents,	MIS	Telephone
	Keeping	Charge	Printer		
		[Instruct PD,			

	T	1	T	1	
		Manage MIS, Submit documents to IFI]			
28	Loan Disbursement To PDs (Reimbursement option)	Officer in Charge [Instructing proponents, check and approve requests, communicate with PD, inform PD], Manager [Browse approval list, discuss with officer, approve or disapprove]		MIS	Telephone
29.1	Adjustment Against APO	Officer in charge		MIS	
29.2	Repayment	Officer in charge [Confirm process is being conducted properly, Record data, Check repayment		MIS	Telephone

status and
ask for early
repayment if
late,
Consult with
manager if
failing to
follow
guidelines
continue],
Manager
[Deny
application
for serious
cases]

PART III

MONITORING FOR A-TYPE LOAN

A -TYPE LOAN MONITORING PROCEDURE

Process Number	Process Name	Existing Six System Elements						
		Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network	
30	Managing Sub-project Implementation Plan	Manager [Prepare draft, Update Plan upon request from SREDA or JICA]	Pen, Paper, Printer, Documents (Annex 104)					

31	Registration of User-ID and Password	Officer in Charge [Issues User ID and Password, Confirm login]		MIS	
32.1	Document and Evidences on Purchasing and Installation	Officer in Charge, Manager	Documents	MIS	Telephone
32.2	On-site Inspection	Officer in Charge, Manager		MIS	Telephone
32.3	Requesting sub-project owner to submit required data and to cooperate for inspection	Officer in Charge [On Quarterly basis request Proponents to follow instruction set, Verify that all data submitted],		MIS	Telephone

33.1	Environmental	PIU	Annex 34,	MIS	Telephone
	And Social	Secretariat	Printer,		
	Performance	[Request ENV	Documents		
	Report	Officer to			
	_	prepare			
		Report],			
		Environmental			
		and Social			
		Considerations			
		Officer			
33.2	Environmental	PIU	Annex 39,	MIS	Telephone
	And Social	Secretariat	Printer,		
	Management	[Request ENV	Documents		
	System(ESMS)	Officer to			
	Checklist	prepare			
		Report],			
		Environmental			
		and Social			
		Considerations			
		Officer			

PART IV

MONITORING FOR B-TYPE LOAN B-TYPE LOAN MONITORING

PROCEDURE

Process Number	Process Name	Existing Six System Elements						
Number		Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network	
34	User- Registration For PDs	Officer in charge for Component [Make sure that the PDs are issued with user-ID and password]			MIS			
35.1	Installation Inspection Reporting	Officer in charge for Component [Instruct proponents, check transaction status]	Documents		MIS		Telephone	
35.2	Additional Information From PDs	Manager			MIS		Telephone	

PART IV

MONITORING FOR B-TYPE LOAN B-TYPE LOAN MONITORING

PROCEDURE

Process Number	Process Name	Existing Six System Elements						
Number		Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network	
34	User- Registration For PDs	Officer in charge for Component [Make sure that the PDs are issued with user-ID and password]			MIS			
35.1	Installation Inspection Reporting	Officer in charge for Component [Instruct proponents, check transaction status]	Documents		MIS		Telephone	
35.2	Additional Information From PDs	Manager			MIS		Telephone	

Part V Reporting

Process Number	Process Name	Existing Six System Elements							
		Human	Non Computing Hardware	Computing Hardware	Software	Database	Comm. Network		
42. 1	Quarterly Report (QPR) and Annual Report (AR)	PIU Secretariat [Prepare documents], Manager [Validate reports]			MIS				
42.2	Ongoing Sub-Projects Summary and Financial Report (Annex 367) and Statement of Expenditure	Officer in charge / PIU secretariat / Manager [Prepares reports]	Documents and Reports				Telephone		
43.	Supplemental Information	Officer in Charge [Request for financial statements]			MIS		Telephone		
44.	Incidental Reports	PIU Secretariat / Officer in Charge, Manager	Printer, Document						

ALPMS (Automated Loan Processing & Monitoring System)

Group 0X