

# Logical Framework approach to study and implement Asset Liability Risk Management System in select cooperative banks in Uttar Pradesh

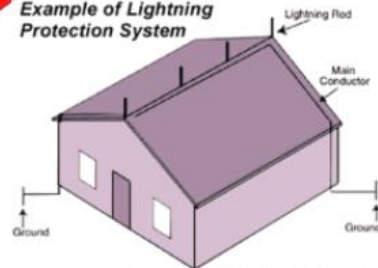
ALM - Objective



Exposure by choice  
not by chance



Example of Lightning Protection System



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Lucknow**

**Logical Framework approach to study and implement Asset  
Liability Risk Management System in select cooperative  
banks in Uttar Pradesh**

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### **Disclaimer**

This Study Report has been prepared by Prabhat Keshava, Faculty Member, National Bank Staff College (NBSC), Lucknow based on the field study conducted by him from 11 to 15 February 2019 to select 4 cooperative banks in UP viz. Uttar Pradesh Cooperative Bank, Lucknow CCB, Sitapur CCB & Farrukhabad CCB and NABARD UP Regional Office. Views expressed in the report are that of the author. It does not necessarily represent or reflect the policy or view of National Bank Staff College (NBSC) or National Bank for Agriculture & Rural Development (NABARD). NBSC and NABARD accept no financial liability or any other liability whatsoever to anyone using this report as also for the accuracy of facts and figures quoted in the report.

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## Executive summary

### In house study on

#### **‘Logical Framework approach to study and implement Asset Liability Risk Management System in select cooperative banks in Uttar Pradesh’**

In an increasingly deregulated market, banks are facing greater exposure to market risks, viz. interest rate risk, foreign exchange risk and liquidity risk. Asset Liability Management process and Risk Management System (ALM) provides a comprehensive and dynamic framework for measuring, monitoring and managing these risks and is important for profit maximizing through efficient market risk management by ensuring returns commensurate with the level of risk taken. However, in spite of the importance of ALM, the cooperative banks do not recognise it as a risk and they do not give due importance to the implementation of the Assets & Liabilities Management process and Risk Management System.

The present study was an effort to understand the issues and problems in implementation of ALM in select cooperative banks in UP and apply logical framework approach to develop action plan for its implementation.

During the study issues and problems in implementation of ALM system were discussed with the officials of the select cooperative banks including the Apex Bank (UPCB), the Application Service Provider(ASP) and officials of NABARD, UPRO. Stakeholders Analysis was attempted and the same was translated into Stakeholders Matrix based on the support and influence expected out from each of the stakeholders for implementation of ALM. The identified issues/problems were trailed down and up for the cause and effect of the primary problems further to the secondary and tertiary levels to draw up a problem tree and strategies to achieve the identified objectives for the problems were plotted.

Strategies identified for implementation of ALM system in cooperative banks were (i) Sensitisation and activating Top Management and the Board for importance of ALM, (ii) Capacity building of Staff and (iii) Strengthening of MIS.

The activities and interventions identified based on strategies were mapped into an action plan in logical framework the objectives of which are (i) To provide policy framework and organisational infrastructure ready to implement ALM process and Risk Management System. (ii) To build decision making process streamlined to do business based on ALM and (iii) To develop MIS Reports to strengthen ALM process and Risk Management System

#### **Major findings/observation from the study are as under :**

The banks under study did not give due importance to the implementation of the Assets & Liabilities Management process and Risk Management System.

There was Low awareness among bank officials, top management and Board about importance of ALM.

The banks have not setup an ALM policy and Risk Management Policy. As a result ALM organisation in the banks and manpower deployed for ALM and Risk

Management were inadequate, casual and lacked required skill for implementation of ALM and Risk Management process.

Management Information System (MIS) in banks under study were limited to a few sets of information related to customer services and annual closing of accounts. As a result, use of system generated MIS, in the banks' decision making process is very less.

The system of managing liquidity risk and interest rate risk, fixing of rate of interest, managing portfolio mix, etc, in the banks was not scientific and was not based on ALM process or any other risk management techniques.

### **Conclusion and Policy Issues**

Modern day banking needs specialized skills and risk management abilities at all levels of governance. While intent of the management continues to be the most critical factor for good governance of a bank, with growing complexities of banking business, the technical competence of the management has assumed equal significance for maintaining bank's sustainability.

The cooperative banks needs to implement ALM process within the purview of overall Risk Management system.

Modern banking practices and NABARD's supervisory guidance in terms of ALM organisation and Risk Management Structure, needs to be adhered to scrupulously by cooperative banks.

Even though developing an ALM process and Risk management system is a complicated and time consuming job, to begin with, it is necessary that sensitisation workshops for members of the Board of the cooperative banks, CEOs and other officials of cooperative and audit department needs to be provided.

A time line action plan is required to be drawn by each bank in regard to MIS generation and setting up of ALM organisation and Risk Management System under the guidance of RCS / NABARD.

Training programme for officials of cooperative banks is required to be developed keeping in mind the ALM and Risk Management System practices which could easily be implemented by the cooperative banks.

As adherence to ALM process and Risk Management System is core to the financial stability of banks for their long term sustainable performance, it is important that implementation of ALM process and Risk Management System may be given due importance in the supervisory rating System.

RBI / NABARD may fix a minimum MIS standards to be provided by the ASP for implementation of the ALM and Risk Management System.

A certificate course on qualified ALM professionals for cooperative may be carried out by Centre for Professional Excellence in Cooperative (CPEC) at BIRD for the banks to post qualified officers at the desk

# **Logical Framework approach to study and implement Asset Liability Risk Management System in select cooperative banks in Uttar Pradesh**

## **Background**

In banking, Asset Liability Risk Management system (ALM) is a practice of managing risks that arise due to mismatches between the assets and liabilities of the bank. Banks face several risks such as liquidity risk, interest rate risk, credit and operational risk. ALM is a strategic management tool to manage interest rate risk and liquidity risk faced by banks. However, in spite of the importance of ALM, the cooperative banks do not recognise it as a risk and they consider the credit risk as the only risk affecting their books.

The ALM system in cooperative banks was first introduced by NABARD in 5 StCBs viz Punjab, Tamilnadu, West Bengal, Maharashtra and Andhra Pradesh, on a pilot basis, with effect from 01 April 2007. Thereafter, this was introduced in all the State Cooperative Banks with effect from 01 August 2008 and in select 31 CCBs from 1 September 2008, while the remaining CCBs were advised to be in readiness for introduction of ALM system. Banks were also advised by NABARD to update their internal MIS so as to enable them to prepare the ALM related returns viz. Statement of Structural Liquidity (SSL) and Statement of Interest Rate Sensitivity (SIRS). Later, NABARD vide its letter No.NB.DoS.HO/OSS/ 4661 /P-177/2017-18 dated 9 March 2018 made it mandatory for submitting SSL and SIRS at quarterly intervals w.e.f. quarter ended 31.03.2018 through ENSURE portal as part of additional supervisory returns.

Despite the fact that the cooperative banks in the State of Uttar Pradesh (UP) are working under Core Banking Solutions (CBS) environment, the working of CBS system is limited to the management of customer services only. Management Information System (MIS) in these banks are limited to a few sets of information related to customer services and annual closing of accounts. As a result, use of system generated MIS, in the banks' decision making process is very limited. ALM information system was not found in place in any of the cooperative banks covered under the study in UP. These banks did not prepare SSL and SIRS. Thus, the system of managing liquidity risk and interest rate risk in these banks was neither scientific nor based on ALM process or any other risk management techniques. The present study was an effort to understand the issues and problems in implementation of ALM in select cooperative banks in UP and apply logical framework approach to develop action plan for its implementation.

## **Statement of Problem**

ALM and Risk Management activities in cooperative banks in UP are limited to constitution of ALM committee (ALCO) and Risk Management Committee.

The banks do not apply ALM process in day to day banking for management of liquidity and interest rate risk.

Rate of interest on deposits and loan products are not fixed based on any scientific ALM process or risk management techniques.



The SSL and SIRS are not prepared or submitted by cooperative banks in UP as required to be submitted as additional supervisory statements under ENSURE on quarterly basis since 31.03.2018.

**Assumptions / Hypothesis:**

- Cooperative banks do not realise the importance of asset/liability risk management
- Lack of knowledge of the management of the banks as to how interest rate and liquidity risk exposure can influence the profitability of the bank under unfavorable economic circumstances
- Difficulties in collection of appropriate data from the CBS system to employ ALM system.
- Although IT companies / Application Service Providers (ASP) have developed very comprehensive Asset and Liability Management system in commercial banks, the same were not customised in the MIS of cooperative banks.
- Any additional tailor-made report required by the cooperative banks other than the basic reports generated from the system were quite expensive for small banks under rural co-operative structure.

**Objective of the study :**

- To study the status of ALM system in select cooperative banks in Uttar Pradesh
- To identify the problems faced by the banks in implementing ALM system.
- To develop action plan applying logical framework approach for implementation of ALM in cooperative banks in UP.

**Methodologies adopted :**

The data/information available in the ENSURE platform were studied and based on preliminary discussions held with officials of NABARD UP Regional Office (RO) 4 cooperative banks were selected for the studies. The banks selected were diverse in nature with respect to ASP and CBS Software, type of cooperative bank, years of migration to CBS and financial status. The banks selected were as under :

<b>Name of the Bank</b>	<b>Type of Bank</b>	<b>Status</b>	<b>Year of Migration</b>	<b>ASP</b>	<b>CBS Software</b>
Uttar Pradesh Cooperative Bank (UPCB)	State Cooperative Bank (StCB)	Financially sound	2012-13	Megasoft Information Systems Pvt. Ltd.Mumbai	Easy Bank
Jilla Sahakari Bank, Sitapur (Sitapur CCB)	Central Cooperative Bank (CCB)	Weak Bank under rehabilitation package of GoI, low	2017-18	Megasoft Information	Easy Bank

		working capital and liquidity and margin		Systems Pvt. Ltd.Mumbai	
Jilla Sahkari Bank, Lucknow (Lucknow CCB)	Central Cooperative Bank (CCB)	Weak Bank with accumulated losses and low working capital and margin	2012-13	WIPRO	Finacle
Jilla Sahkari Bank, Farrukhabad (Farrukhabad CCB)	Central Cooperative Bank (CCB)	Moderate Working Capital, accumulated losses decreasing with improved margin and liquidity	2012-13	WIPRO	Finacle

The study is based primarily on data / information collected during the study conducted from 11 to 15 February 2019. Data / information were collected through interactions/discussions with officials of the cooperative banks and their ASPs and officials of NABARD UPRO on various ALM framework like ALM information systems, ALM Organisation and ALM process.

Further, level of customisation of the CBS system and MIS generated were studied for its capabilities to implement ALM.

Issues and problems in implementation of ALM system were discussed with the officials of the select banks including the Apex Bank (UPCB) and the ASP. Based on the discussions, Stakeholders Analysis was attempted to identify roles and responsibilities, issues, influence and support expected from each of the Stakeholders for implementation of ALM and the same was translated into Stakeholders Matrix based on the support and influence expected out from each of the stakeholders.

The identified issues/problems were trailed down and up for the cause and effect of the primary problems further to the secondary and tertiary levels to draw up a problem tree.

The negative situations identified in the problem tree were transformed into positive and expected situations to build-up an objective tree. Based on further discussions strategies to achieve the identified objectives were made.

The activities and interventions identified based on strategies were mapped into an action plan in logical framework.

The stakeholders analysis, the problem tree analysis, strategies and action plan plotted in the logical framework were reworked out after each interactions and discussions with the officials of banks visited , ASP and officials of NABARD, UPRO.

### **Risk Profile of the Select Cooperative Banks**

The banks did not have sound systems and procedures for identification, measurement and management of various types of risks they were exposed to. There was no systemic approach of managing the assets and liabilities of the banks. ALM Process in these banks were not designed/ evolved and even after getting migrated to CBS, the banks could not generate MIS and develop system to have a watch on various kind of risk they were exposed on day to day basis. The aspects of risk management did not engage due attention of the banks, notwithstanding the facts that the banks were exposed to various types of risks.

The extent of various risk faced by the cooperative banks under study with reference to their financial position as on 31.03.2018 is indicated in the under noted ratios and data / indicators:

Sl.No.	Particulars / Ratios	UPCB	Lucknow CCB	Sitapur CCB	Farrukhab ad CCB
<b>A</b>	<b>Liquidity Risk, CRAR and Solvency</b>				
1	CRAR (%)	19.67	14.78	21.14	15.16
2	Leverage Ratio (Tier I capital to Total Assets) (%)	8.84	4.66	5.48	8.57
3	CASA Deposits to total deposits (%)	11.77	60.35	74.01	65.16
4	Deposits to Working Funds (%)	59.51	81.28	51.67	67.01
5	Proportion of co-operative deposits to total deposits (%)	81.44	16.79	1.27	4.08
6	Borrowings to Loans (%)	46.15	11.37	39.50	31.66
7	Cash to Deposits (%)	4.11	0.96	5.17	5.26
8	CD Ratio (%)	91.49	36.75	44.34	69.89
9	ID Ratio (%)	68.03	69.03	95.02	46.21
10	Growth of Deposits over previous year (%)	3.73	5.67	-0.77	3.27
11	Growth of Loans over previous year (%)	26.29	23.09	-1.64	11.69
<b>B</b>	<b>Credit Risk and Asset Quality</b>				
1	Impaired credits to total loans and advances (%)	8.49	32.31	94.26	7.01
2	Doubtful and loss assets to total loans (%)	94.85	51.41	97.78	76.07
3	Ratio of Net NPA to Net loans & advances (%)	0.59	18.59	85.65	1.21
4	Provision Coverage Ratio (PCR) (%)	93.66	52.15	63.70	83.76
<b>C</b>	<b>Interest Rate Risk and Margin Analysis</b>				
1	Yield on Advances (%)	6.80	9.14	0.67	8.04
2	Yield on Investments (%)	7.68	7.40	7.25	7.16
3	Cost of Deposits (%)	6.48	4.91	2.77	4.90

4	Cost of Borrowings (%)	4.94	6.73	5.08	5.49
5	Yield on Assets (%)	6.81	7.12	4.14	6.50
6	Cost of Funds (%)	5.10	4.20	1.89	4.07
7	Net Interest Margin (NIM) (%)	1.71	2.92	2.25	2.44
8	Cost of Management (CoM) (%)	1.26	3.00	2.40	2.24
9	Operating Margin (%)	0.50	0.01	0.36	0.31
10	Return on assets (RoA) (%)	0.40	0.01	0.05	0.22
11	Return on Equity (RoE) (%)	4.77	0.12	0.79	1.58
12	Non-earning assets to total assets (%)	5.13	20.44	53.08	18.66

It was observed that though the banks CRAR ratios, CASA deposits to total deposits were high, the bank had moderate reliance on borrowings from higher financing agencies. Lucknow and Sitapur CCBs with high NPA and low deposits growth were exposed to higher liquidity risks. Net Interest Margin of all the banks were very low and in case of Lucknow and Sitapur CCBs they were not enough even to meet the cost of management. As a result Return on Assets and Return on Equity of the banks were very low. The banks though were exposed to moderate liquidity risk in near future, they were exposed to high credit and interest rate risk.

### **Status of ALM System in Select Cooperative Banks**

#### **ALM information system**

- The banks had required computer infrastructure and they worked under CBS environment.
- The CBS systems were oriented mostly towards the management of data and MIS related to customers transactions and services.
- MIS reports generated and used by the banks were mostly related to day to day closing of accounts & cash balance, Trial Balance, etc. and were not useful enough to generate MIS related to ALM, risk management and other business parameters to facilitate decision making process.
- The bank did not yet introduce Asset Liability Management (ALM) system or the system of preparation of maturity pattern of both assets and liabilities so that mismatch in cash inflow / outflow can be worked out and liquidity gap managed.
- The banks did not undertake analysis of Rate Sensitive Assets (RSA) and Rate Sensitive Liabilities (RSL) to assess how movement of interest rates in the market influenced their own interest rate structure both on the assets and liabilities sides and thence its NII.
- The banks did not adopt any risk management tools/techniques to assess various risks. (Maturity Gap analysis, Duration Gap analysis, etc.)

#### **ALM Organisation**

- The banks did not have any ALM policy and Risk Management Policy.
- The banks, however, had formed ALM Committee (ALCO) and Risk management Committee.
- ALCO comprises CEO as chairman of the committee and all the sections / departments head as its members with in-charge of Accounts Department as the convener.
- Risk Management Committee of the Board had 2 to 3 Board members with Chairman of the Bank as its Chairman and the in-charge of Accounts Department as convener.
- The meetings of these committees were not regular and the committees were mostly defunct.
- The agenda discussed in the meetings held, if any, were not as per the requirements of the ALCO committee / Risk management Committee.
- The Head Office had 4 to 5 departments viz. Administration, Accounts, Development, Collection and Information Technology. Each department had 2 to 3 officers looking after various functions.
- The roles of staff were overlapping over various departments and was not appropriate from the point of view of implementing ALM and risk management.
- Secretarial support to ALCO and Risk Management Committee were provided by Accounts Department which in addition looked after fund management, investments, reconciliation, preparation and closing of accounts, audit, etc.
- Manpower deployed for ALM and Risk Management were inadequate, casual and lacking in required skill for implementation of ALM and Risk Management process.

### **ALM Process**

- The banks did not implement ALM process.
- The banks did not adopt any strategy for management of Liquidity Risk and Interest Rate Risk. They did not prepare or analyse SSL and SIRS.
- Process adopted to fix rate of interest on Deposits and Loan products for various time period was not scientific and was not as per their own balance sheet data and ALM data structure requirements. The rates were fixed based on the interest rate prevailing in UPCB and various major commercial banks in their area of operations.
- Rates of interest fixed for deposits products were different in different banks for different time buckets and were generally highest for 1 year to 2 years term. The banks did not use rate of interest as a tool to address their liquidity gaps and interest margins gaps for various maturity time buckets. The details of interest rate structure of deposits as on February 2019 were as under :

<b>Time Period</b>	<b>UPCB</b>	<b>Lucknow CCB</b>	<b>Sitapur CCB</b>	<b>Farrukhabad CCB</b>
7 to 14 days	5.25	5.25	4.75	No product

15 to 45 days	5.50	5.50	5.00	4.5
46 to 90 days	6.25	6.25	5.75	4.75
91 to 180 days	6.30	6.25	6.00	5.50
181 to 269 days	6.50	No product	6.25	No product
270 to 364 days	6.75	No product	6.25	No product
181 to 364 days	No product	6.50	No product	6.25
1 Year	7.35	7.30	6.50	No product
1 to 2 Year	6.75	6.75	6.25	7.35
2 to 3 years	6.50	6.50	6.25	7.25
3 years and above	6.50	6.50	6.00	7.00

- Rates of interest on loans and advances were also not fixed based on the margin requirements for various products and time frame as per banks' own ALM structure and Balance Sheet Requirements.
- The CCBs had to follow interest rate structure as fixed by RCS/UPCB for many of the loan products which formed major portfolio of the bank i.e. ST(SAO)/KCC and Sugar Finance where the banks borrowed money from higher financing agencies or claimed interest subvention.
- The CCBs were working on a very narrow gross financial margin which was not enough to meet the cost of management and risk cost in many of the CCBs. The interest rate on loan portfolio like personal loan, MSME, vehicle loan, salary earner society loans, etc. were also not fixed as per the banks' ALM structure and margin requirements.
- The banks did not have a system to charge interest premium based on risk perception of products, customers and term of loan. The rate of interest on non-agricultural loans ranged from 9.5% in vehicle loan to 12.0% in personal loans which were lower than those prevailing in commercial banks.
- The financial margin in CCBs was mostly being contributed by low cost of deposits which in turn was on account of high CASA deposits.
- The budget/target for different types of loan products were also not fixed based on margin requirements, liquidity, ALM structure and Risk Management system in the bank.
- The banks did not make any analysis of the economic scenario and effect of the same on the future interest rate structure to mitigate the same in their ALM process.

- The investment decisions made by the banks were also not based on the ALM structure for liquidity, margin requirements and likely effect of the portfolio / profitability based on change, if any, in the future interest rate structure.
- The banks did not review its investment portfolio in Government Securities and they did not trade/ sell. The Government securities were purchased for compliance of SLR and were kept in permanent category.
- The banks did not take investment decisions / review investment portfolio based on YTM, duration and margin and did not make any effort to improve upon the same.

### Stake Holder Analysis

Analysis of key stakeholders identified for implementation of ALM and Risk Management System in the banks are as under :

Stakeholder	Roles and Responsibilities	Issues	stakeholder influence	stakeholder support
Board of the Bank / CEO	1. Policy on ALM and Risk Management 2. Setting up of ALCO 3. Setting up of Risk Management Committee 4. Fixing of Rate of Interest 5. Budget Planning for various kinds of product mix 6. Organisation structure and staff position	No Policy on ALM and Risk Management.  Fixation of RoI not based on ALCO decisions based on ALM  No decision on product mix	Highest implementing and decision making body	Towards improvement in the skilled staff position and organisation structure to implement ALM
Risk Management Committee of the Board	1. Monitoring various risk subjected to the bank 2. Prescribe exposure limits and various ceilings to averse risk	Meetings not convened regularly  No risk limits prescribed	Important decision making body.  Dependent on the input and	Towards prescribing various risk limits to facilitate decision

			support of various departments.	making by ALCO
ALCO of the Bank	1. Discussions on ALM and decisions making on risk and return 2. Interest Rate Structure of deposits and loans products 3. Product Mix based on Liquidity and Margin requirements	Meetings not convened regularly  ALM not discussed  No discussion on RoI or product mix	Important decision making body.  Dependent on the input and support of various departments.	Towards analysing data on ALM for better risk return decisions
IT Department of the Bank	MIS on SSL and SIRS	MIS not supportive to implement ALM	Close coordination with ASP and other departments	Towards supporting accounts departments with data with the help of ASP
Accounts Department	1. Preparation of SSL and SIRS 2. Provide support to ALCO with data and convene the meeting 3. Day to day funds management 4. Investments decisions	Not very sensitive towards interest rate risk and liquidity risk 2. AAL and SIRS not prepared 3. Do not provide adequate input to ALCO for decision making.	Topmost important stakeholder for implementation of ALM	Supporting ALCO with proper data and input and convene ALCO meeting timely
Loan, Development and Collection Department	1. Loan appraisal, collection and monitoring 2. Diversification of loan portfolio	Not very sensitive towards interest rate risk and liquidity risk	Member of ALCO	Supporting ALCO with data related to loans and collections
Application Service Provider (ASP)	MIS	No MIS on SSL and SIRS	The first and the foremost requirement for implementation of ALM	Developing report module to support ALM



UPCB	<p>1. Capacity building and training of lower tier institutions</p> <p>2. Monitor lower tier institution for business issues, compliance, etc.</p> <p>3. As a higher tier institution, negotiation with ASP on IT issues which include MIS for ALM</p>	<p>1. No importance given to liquidity and interest rate risk by the bank.</p> <p>2. Low awareness of ALM across the hierarchy of the bank.</p> <p>3. Low capacity of the staff to implement ALM.</p> <p>3. Banks did not submit SSL and SIRS under OSS</p>	<p>Has high influence to implement ALM and adhere to the compliance of the supervisory prescriptions by NABARD</p> <p>Can influence the ASP for MIS to support ALM</p>	<p>Supporting the bank to strengthen quality staff to implement ALM</p> <p>Supporting banks to outsource ALM related analysis</p>
RCS	<p>1. Monitor cooperative banks for business issues, compliance, etc.</p> <p>2. Audit and Inspection</p>	<p>No directions given to the banks for implementation of ALM</p>	<p>Has high influence to implement ALM and adhere to the compliance of the supervisory prescriptions by NABARD</p> <p>Can influence the ASP for MIS to support ALM</p>	<p>Supporting the bank to strengthen quality staff to implement ALM</p> <p>Supporting banks to outsource ALM related analysis</p>
NABARD	<p>1. As supervisor of Cooperative Banks, Inspection and compliance under B.R.Act, 1949(AACS)</p> <p>2. Capacity building and training under Cooperative Development Fund (CDF)</p> <p>3. Refinance</p> <p>4. Supporting IT under Department of Financial Inclusion and Banking Technology (DFIBT) plan</p>	<p>1. No importance given to liquidity and interest rate risk by the cooperative banks.</p> <p>2. Low awareness of ALM across the hierarchy of the cooperative banks.</p> <p>3. Low capacity of the staff to implement ALM.</p> <p>3. Banks did not submit SSL and SIRS under OSS</p>	<p>ALM statements made statutory returns under Off-site surveillance system (OSS)</p> <p>Supervisory prescriptions by NABARD to implement ALM</p> <p>Can influence the ASP for MIS to support ALM</p>	<p>ALM implementation as supervisory prescriptions</p> <p>Support for technology adoption and capacity building</p>

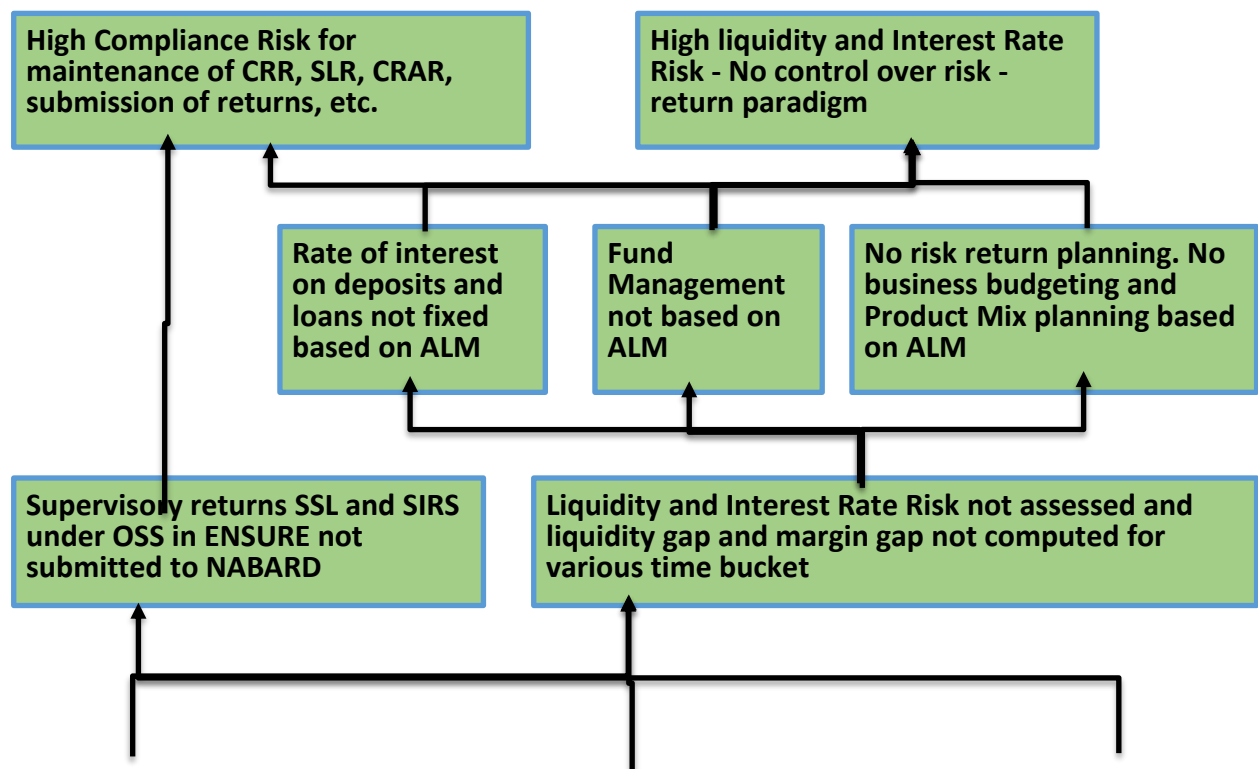
RBI	Regulator of the cooperative banks	Risk Management as per Basel I norms applicable  ALM not made mandatory	As regulator may prescribe any risk management system in future and ALM may be made mandatory for the bank	ALM implementation mostly suggestive
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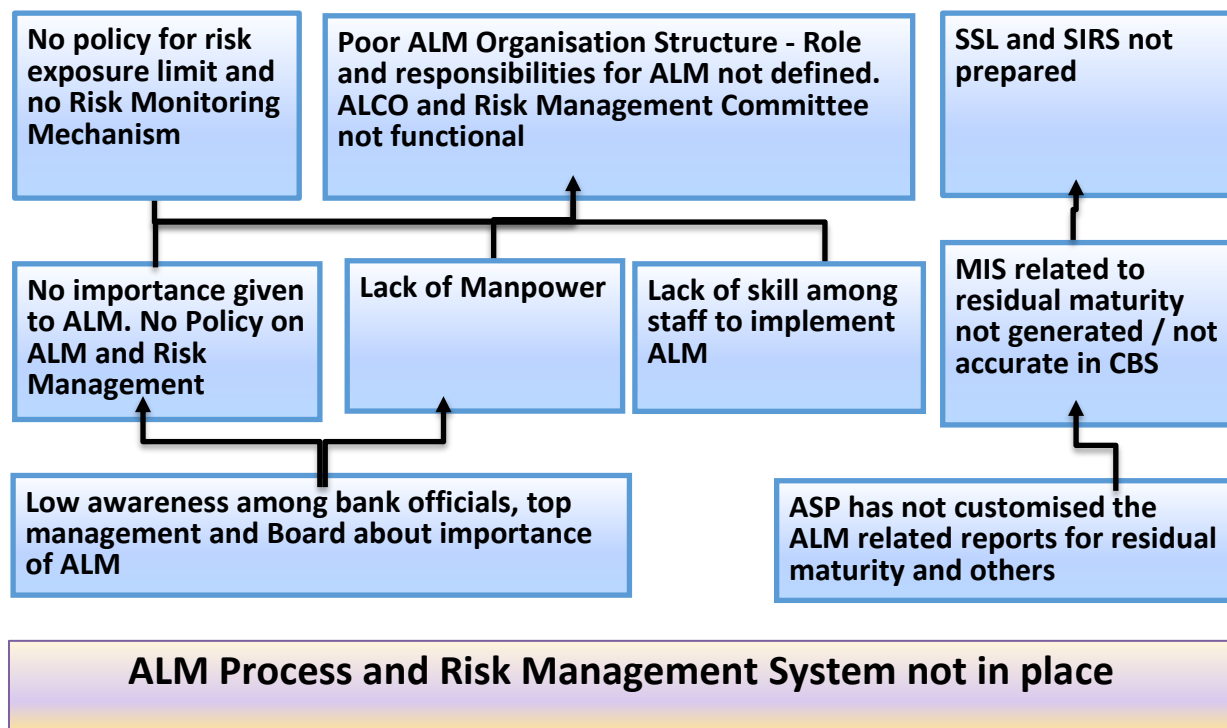
Stakeholder Matrix was drawn based on the stakeholders analysis to understand the level of expected influence and support by various stakeholders to implement the ALM and Risk Management. The Stakeholder Matrix is as under :

Stakeholder Matrix		stakeholder support	
		Low	High
stakeholder influence	High	RBI, RCS, UPKB, NABARD	Board, Risk Management Committee, ALCO, CEO
	Low	Loan, Development and Collection Departments	ASP, Accounts and IT Departments,

### Problem Tree Analysis

Based on the interactions with various stakeholders a problem tree analysis has been attempted to understand issues and problems in implementation of various components of ALM Process and Risk Management system and their likely effect on the working of the bank. The problem tree drawn is as under :





### Objective Analysis

The negative situations identified in the problem tree were transformed into positive and expected situations and analysed. The analysis defines overall goal as ‘to implement ALM process and Risk Management System in the cooperative banks with controlled risk-return policy framework complying to supervisory expectations’. The objectives identified to achieve the overall goal are as under :

- To develop Policy framework and organisational infrastructure to implement ALM process and Risk Management System.
- To improve decision making process based on ALM process and Risk Management System for controlled risk-return banking.
- To develop MIS to strengthen ALM process and Risk Management System
- To improve compliance to statutory, regulatory and supervisory requirements and submission of supervisory returns SSL and SIRS under OSS in ENSURE platform.

### Analysis of possible strategies

The different groups of similar Objectives identified in the Problem tree have been used to build up most appropriate and feasible strategies which along with results expected are as under :

Sl. No.	Strategies	Results Expected
1	Sensitisation and activating Top Management and the Board	Policy formulations, Operationalising Risk Management Committee, Regular Risk monitoring, Development of proper ALM organisational Structure and adequacy of manpower planning
2	Capacity building of Staff	ALCO functional and effective for decisions regarding rate of interest and product mix, etc. Banking decisions based on ALM process under controlled risk return framework
3	Strengthening of MIS	Reports generation from CBS, Preparation of SSL and SIRS and assessment of liquidity and interest rate risk and their monitoring for strengthening ALM process and Risk Management system and improved compliance to statutory, regulatory and supervisory requirements

### **Action Plan in Logical Framework**

The action plans and interventions identified based on strategies have been mapped into a logical framework for implementation and monitoring of the actions to achieve various objectives and ultimately the final goal. Action plan in the Logical Framework prepared for implementation of ALM and Risk Management System in the banks is given in Annexure.

### **Policy Recommendations and Conclusions**

In an increasingly deregulated market, banks are facing greater exposure to market risks, viz. interest rate risk, foreign exchange risk and liquidity risk. Asset Liability Management System provides a comprehensive and dynamic framework for measuring, monitoring and managing these risks and is important for profit maximization through efficient market risk management by ensuring returns commensurate with the level of risk taken.

### **Findings :**

#### **1. ALM information system**

The CBS system did not support collecting data and making report important for implementation of ALM process and Risk Management System in the banks.

The banks did not prepare or submit additional supervisory statements on SSL and SIRS to NABARD under ENSURE platform.

## **2. ALM Organisation**

The study brings out the fact that implementation of ALM Process and Risk Management System in cooperative banks was in very nascent stage. The banks under study did not give due importance to the implementation of the Assets & Liabilities Management process and Risk Management System. The banks have not setup an ALM policy and Risk Management Policy.

The bank Board members, CEO and Top Management of the banks were not professionals and thus did not have requisite knowledge and skill to understand the complexities of ALM and Risk Management System and adhere the practices in the line of the principles of modern banking. They mostly did not comply to the 'Fit and Proper' criteria laid down by RBI.

The banks setup ALCO and Risk Management Committees. However, the members of these committees were the Directors & a few officers. It did not consist any expert /professional qualified advisor having thorough knowledge about ALM and Risk Management.

The banks' organisational set-up and structure did not support implementation of ALM and Risk Management System. The banks also did not identify/designate any officer to look after the ALM and Risk Management System.

The present organisation structure of the Head Office of the banks required improvement in terms of structure, staff strength and capacity of staff handling ALM.

The employees were neither trained nor skilful to handle complexities of implementation of ALM process and Risk Management System.

## **3. ALM Process**

The banks did not measure and monitor various risk it was exposed to and did not any scientific tools to manage the same. As a result business decisions in the banks were not carried out on sound principles of banking and proper analysis of MIS.

The banks did not have sound and scientific practice for fixing rate of interest for various products. The banks did not follow Fund Transfer Price (FTP) mechanism to appropriate the rate of interest with various risk premium it was exposed to. They were strongly influenced by the actions of competitor banks and the apex cooperative bank.

### **General Recommendations :**

1. Sustainable development of cooperative banks needs adoption of sound strategies and practices by them. The cooperative banks need to implement ALM process within the purview of overall Risk Management system not only to comply with the future compliance requirements of various Basel recommendations and new accounting standards in term of

India Accounting Standards (Ind AS) or International Financial Reporting Standards (IFRS), but also for understanding these concepts as it is also of value to the bank to enable it to provide a truer picture of the risk/reward trade-off in which the bank is engaged.

Even though developing an ALM process and Risk management system is a complicated and time consuming job, to begin with, it is necessary that sensitisation workshops for members of the Board of the cooperative banks, CEOs and officials of cooperative departments and audit on the following four basic elements of the sound risk management system is provided by Regional Office of NABARD / RCS.

- Appropriate board and senior management oversight
- Adequate risk management policies and procedures
- Appropriate risk measurement, monitoring, and control functions
- Comprehensive internal controls and independent audits.

2. Action plan with time line may be drawn-up by each bank with respect to MIS generation, ALM organisation and Risk Management System under the guidance of RCS / NABARD.

3. NABARD may conduct workshops for bank officials responsible for the implementation of the ALM process and Risk Management System.

4. Training programme for officials of cooperative banks may be developed keeping in mind the ALM and Risk Management System practices which could easily be implemented by the cooperative banks. The areas covering the following aspects of the ALM process and the Risk Management System may be developed in the training module by BIRD or Cooperative Training Institute :

- Drafting of the ALM policy and the Risk Management Policy / Risk Appetite Framework and Policy (RAF) and setting of potential limits on the asset and liability mix, as well as the level of interest rate and foreign currency risk, if any, to which the bank is willing to be exposed.
- Latest ALM tools & techniques (Duration Gap Analysis, Simulation and Value at Risk (VaR), etc.) for risk measurement, monitoring, and control functions. Emphasis to those methodologies and procedures that the bank could be able to employ it on daily practice.
- Asset Liability Management Committee (ALCO) and their role in the ALM function and their interactions with the Board and /or Sub-Committee of Board on ALM and Risk Management.
- Balance Sheet planning from risk returns perspective, particularly strategic management of interest rate and liquidity risk.

- Establishing ALM monitoring and management procedures as per risk management policy and adhering to parameters, procedures and policies decided by the Board.
- The source of information contributing in making interest rate decision and their application.
- Concept of Fund Transfer Price (FTP) mechanism as tool to address market risk and credit risk by passing on the appropriate cost of funds to respective owners of risk. Developing and reviewing FTP practices including the basis for various risk premium.

5. The banks may develop their MIS requirements to implement ALM process and Risk management System and negotiate with the ASP to provide MIS from the CBS. NABARD, RCS and StCB may arrange meetings with the ASPs regarding the MIS required for implementation of the ALM process and Risk Management System.

### **Policy Recommendations :**

Modern day banking needs specialized skills and risk management abilities at all levels of governance. While intent of the management continues to be the most critical factor for good governance of a bank, with growing complexities of banking business, the technical competence of the management has assumed equal significance for maintaining bank's sustainability. Though, there is no regulatory prescription of management structure so far applicable to cooperative banks, modern banking practices and NABARD's supervisory guidance in terms of ALM organisation and Risk Management Structure, needs to be adhered to scrupulously by cooperative banks.

As adherence to ALM process and Risk Management System is core to the financial stability of banks for their long term sustainable performance, it is important that implementation of ALM process and Risk Management System may be given due importance in the supervisory rating System. Thus, the bank which do not implement ALM process or Risk Management System and those which do not have qualified professionals in the Board or the Risk Management Committee of the Board may not be rated as "A", irrespective of the marks obtained by the bank.

A certificate course on qualified ALM professionals for cooperative banks may be introduced by Centre for Professional Excellence in Cooperative (CPEC) at BIRD for the banks to post qualified officers at the desk with additional remuneration for their professional qualifications.

An efficient ALM process and Risk management system could not be without an appropriate IT system. The banks need to develop the IT system parallel with implementing new methodology of risk measurement. IT can support a reasonable report system. RBI / NABARD may fix a minimum MIS standards to be provided by the ASP for implementation of the ALM and Risk Management System.

***Building a sound ALM process and Risk management system is a big challenge for the cooperative banks, but it makes bank operations more efficient***