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बैंक तथा वित्तीय संस्था नियमन विभाग

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सूचना

"घ" वर्गका इजाजतपत्रप्राप्त लघुवित्त वित्तीय संस्थाहरु,

"घ" वर्गका इजाजतपत्रप्राप्त लघुवित्त वित्तीय संस्थाहरुका लागि Risk Management Guidelines for Microfinance Institutions, 2024 जारी गरिएको हुँदा सोहीबमोजिम गर्नु/गराउनु हुन नेपाल राष्ट्र बैंक ऐन, २०५८ को दफा ७९ ले दिएको अधिकार प्रयोग गरी यो सूचना जारी गरिएको छ ।

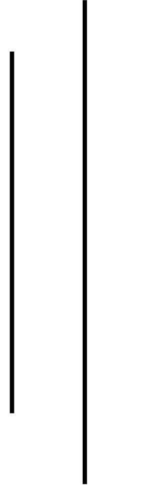
भवदीय,

कार्यकारी निर्देशक

Risk Management Guidelines

for

Microfinance Institutions



Nepal Rastra Bank

Banks and Financial Institutions Regulation Department

2024

Contents

I - Introduction 1

1.1 Overview 1

1.2 Scope and Objectives of the Guidelines 2

1.2.1 Scope 2

1.2.2 Objectives 2

1.3 Dimensions of Risk Management 2

1.3.1 Risk Culture 2

1.3.2 Risk Strategy and Risk Appetite 3

1.3.3 Risk Governance and Organization 4

1.3.4 Risk Assessment and Treatment 4

1.4 Risk Management Framework 6

1.4.1 Active Board and Senior Management Oversight 6

1.4.2 Risk Management Department and Various Committees 7

1.4.3 Policies and Procedures 8

1.4.4 Appropriate Management Information System (MIS) 8

1.4.5 Comprehensive Internal Controls and Limits 8

II – Credit Risk Management 9

2.1 Overview 9

2.2 Appropriate Organizational Structure 9

2.3 Credit Risk Strategies, Policies and Procedures 10

2.4 Credit Limits and Indicators 11

2.5 Credit Granting Processes 11

2.6 Credit Risk Monitoring 12

2.7 Remedial actions 12

2.8 Recovery process 13

2.9 Provisioning Process 13

III – Liquidity Risk Management 14

3.1 Overview 14

3.2 Organizational Structure 14

3.3 Strategies, Policies and Procedures 15

3.4 Limits and Early Warning Indicators 16
3.5 Measurement and Monitoring 16
3.6 Reporting 17
3.7 Contingency Funding Plan (CFP) 17
IV – Operational Risk Management 19
4.1 Overview 19
4.2 Organizational Structure 20
4.3 Strategies, Policies and Procedures 20
4.4 Assessment and Measurement 21
4.5 Monitoring and Reporting 22
4.6 Contingency Planning 22
V – Market Risk Management 24
5.1 Overview 24
5.2 Organization Structure 25
5.3 Strategies, Policies and Procedures 25
5.4 Limits 26
5.5 Measurement and Monitoring 26
5.6 Internal Control 26

I - Introduction[1]

1.1 Overview

Microfinance Institutions (MFIs) play pivotal role in alleviating poverty by raising the financial access to the rural and deprived sections of the society. Since the early 1990s, financial intermediation by Microfinance Institutions have developed steadily in Nepal through the micro credit facilities provided to the deprived and marginalized sections of society. As risk is an integral part of financial intermediation, MFIs are also exposed to various types of risks. At the initial stage of development of MFIs, the focus was exclusively on credit risks. But with the increasing role of MFIs in financial system, the need to assess and manage various types of risks such as liquidity risk, operational risk and market risks have been crucial to ensure the soundness of MFIs and stability of the financial system.

Following the global financial crisis, issues related to management of risks have been a major policy concern of central banks and supervisory bodies. Before the crisis, risk management framework was not sufficiently integrated within institutions and there did not exist a uniform methodology and holistic view to assess and manage the risks. Equally, where they existed, sound risk management practices helped institutions to withstand financial crisis significantly better than others.

Risk management is a part of internal governance involving all areas of MFIs. There is a strong link between good corporate governance and sound risk management. Without proper risk management, the various functions in MFIs cannot work together to achieve the institution's objectives. It is an essential part of helping the MFIs grow and promote sustainability and resilience.

The core of risk management for an institution is about making informed decisions regarding their risk appetite and the management of such risks. For MFIs that evaluate their performance on both financial and social objectives, the decisions regarding risk management can be more challenging than for an institution driven solely by profit. Risk taking is an inherent element and integral part of microfinance services and, indeed, profits are in part the reward for successful risk taking in business. On the other hand, excessive risk taking and poorly managed risk can lead to losses and thus endanger the safety and soundness of microfinance institutions. Consequently, MFIs may not be able to meet their social and financial objectives. In this context, with the increasing role of MFIs in the financial system of Nepal, the need for proactive risk management is a must to the long term sustainability of MFIs.

[1]Approved by Management Committee meeting 11/081/82 dated 2081/06/02 (September 18, 2024)

1.2 Scope and Objectives of the Guidelines

1.2.1 Scope

Nepal Rastra Bank has issued these guidelines to provide guidance to all the MFIs on minimum standards for risk management. These guidelines are not intended to be very detailed and comprehensive as to cover each aspect of an MFI's risk management activity and MFIs may, depending on their size and complexity, establish a more sophisticated framework than outlined in this document. MFIs are in fact encouraged to self-assess their risk profile and operational context, and customize their risk management architecture and approach to attain organizational goals while meeting the minimum requirements standards set out in these Guidelines.

This Risk Management Guidelines contains details on management of four major risks: Credit Risk, Liquidity Risk, Operational Risk and Market Risk (interest rate risk and foreign exchange risk).

1.2.2 Objectives

The objectives for issuing these guidelines are:

- To promote better risk culture at all levels of MFIs.
- To provide minimum standards for risk management practices.
- To improve financial soundness of individual MFIs and stability of the overall financial sector.
- To encourage MFIs to adopt and implement a sound risk management framework.
- To introduce risk management tools and techniques for assessment and treatment of various risks.

1.3 Dimensions of Risk Management

1.3.1 Risk Culture

Every MFI should develop an integrated and institution-wide risk culture, based on a full understanding of the risks it faces and how they are managed, considering risk tolerance and appetite. Since the business of MFIs involve risk taking as they provide loans without collateral, it is fundamental that the risks are appropriately managed. A sound and consistent risk culture throughout the MFI is a key element of effective risk management. An institution will develop its risk culture through policies, examples, communication, and training of staff regarding their responsibilities for risk. Every member of the MFI should be fully aware of their responsibility regarding risk management. Risk management should not be confined to risk specialists or to control functions. Business and operational units, under the oversight of the management body, should be primarily responsible for managing risk on day-to-day basis, considering risk tolerance and risk appetite, and in line with the MFI's risk policies and procedures.

Risk culture and its impact on effective risk management must be a major concern for the board and senior management. A sound risk culture encourages effective risk management, promotes sound risk-taking and ensures that risk-taking activities beyond the institution's risk appetite are recognized, assessed, reported, and addressed in a timely manner. Weaknesses in risk culture are often the root cause for occurrence of significant risk events, financial institutions' failures, and financial crisis.

The top level of the institution sets the tone for the desired risk culture. The risk culture can be strengthened through:

- Enabling an open and respectful atmosphere in which employees feel encouraged to speak up when observing new or excessive risks;
- Clarifying the range of acceptable risks using an embedded risk appetite statement and various forms of communication and training; and,
- Aligning incentives with objectives and clarifying how breaches in policies/procedures will be addressed.

1.3.2 Risk Strategy and Risk Appetite

Risk tolerance and risk appetite are terms often used interchangeably: risk appetite describes the absolute risks an MFI is open to take; while risk tolerance relates to the actual limits within its risk appetite that it pursues.

An MFI's strategy details the long-term, and in some cases, short-term goals and objectives, as well as how progress toward their achievement is measured. Along with business goals, the MFI must have risk goals and risk strategies which enable them to achieve the desired risk profile.

The board of directors sets the strategies and the senior management is responsible for implementing those strategies and communicating them throughout the organization. Risk appetite statement plays an important role in cascading the risk strategy down through the institution. It includes metrics and indicators in relation to specific risk types. The risk-appetite statement should be well-embedded and be consistent with the MFI's capacity to take risk, taking into consideration the capital constraints, and potential profit and loss consequences.

A good practice includes the following:

- Regular review of risk appetite statement as a formal process;
- Top-down and bottom-up processes to define risk metrics and risk appetite; and,
- Limit systems that are aligned with overall governance so that breaches are quickly flagged and appropriate counter-measures are taken.

1.3.3 Risk Governance and Organization

Risk governance refers to the structure, rules, processes, and mechanisms by which decisions about risks are taken and implemented. It covers the questions about what risk management responsibilities lay at what levels and the ways the board influences risk-related decisions; and the role, structure, and staffing of risk organization.

Risk governance should follow the three-lines-of-defense-model.

The first line of defense provides that the business and operation units of the institution have in place effective processes to identify, assess, measure, monitor, mitigate, and report on their risks. Each unit operates in accordance with the risk policies and delegated mandates. The units are responsible for having skills, operating procedures, systems, and controls in place to ensure their compliance with risk policies and mandates.

The second line of defense relates to the appropriate Internal Control framework put in place to ensure effective and efficient operations, including the following;

- Adequate control of risks;
- Prudent conduct of business;
- Reliability of financial and non-financial information reported or disclosed (both internally and externally); and,
- Compliance with laws, regulations, supervisory requirements, and the institution's internal policies and procedures.

The Internal Control framework encompasses risk control function and compliance function, and should cover the whole organization, including the activities of all business, support, and control units. The Risk Management Department, generally headed by a Chief Risk Officer has the responsibility for recommending and monitoring the MFI’s risk appetite and policies, and for following up and reporting on risk related issues across all risk types.

The third line of defense consists of the MFIs Internal Audit which performs independent periodic reviews of the first two lines of defense, provides assurance and informs the first two lines about their strengths and potential weaknesses. The MFI should strengthen its Internal Audit Department/Unit by providing adequate skilled and well trained staff.

1.3.4 Risk Assessment and Treatment

The ultimate responsibility for risk assessment lies solely with an MFI: it should evaluate its risks critically and not rely on external assessments.

Risk management process is the systematic application of management policies, procedures and practices to the assessment, treatment, controlling, and monitoring of risk. The process should be

an integral part of management, be embedded in the culture and practices, and should be tailored to the business processes of the organization.

Regardless of types of structure kept in place or strategies formulated by the MFI, the risk management process should include proper risk assessment and treatment as described below:

Risk Assessment

Risk assessment is the overall process of risk identification, analysis, and evaluation. Risk identification is the starting point for understanding and managing risks and/or crucial activities. Institutions should identify the nature of risk, sources of risk, cost of risk, areas of impacts, events, their causes, and their potential consequences. They must recognize and understand risks that may arise from both existing and new business initiatives. They should put in place adequate tools and techniques to identify risk because risks not identified at this stage will not be included in further analysis.

Risk analysis involves developing an understanding of the risk. It provides an input to risk evaluation and to decisions on the most appropriate strategies and techniques for risk treatment. The institution's risk analysis involves measuring risk by considering consequences of an unfavorable event and likelihood of such event occurring. Factors that affect consequences and likelihood should also be identified. Risk analysis can be undertaken with varying degrees of detail, depending on the nature of risk, severity of risk; and the information, data and resources available. Analysis should be quantitative and qualitative in nature. To the maximum possible extent, MFIs should establish systems/models that quantify their risks; however, in some risk categories, such as reputational and operational risks, quantification may be difficult and complex. When it is not possible to quantify risks, qualitative measures should be adopted to capture those risks.

Risk evaluation is undertaken to assist in making decisions, based upon the outcomes of risk analysis, about which risks need treatment and the priority for treatment implementation. Some risks need to be immediately addressed and should be brought to the attention of the management body promptly. Risk evaluation mainly involves comparing the level of risk found during the analysis process with the MFIs risk appetite, risk tolerance level and regulatory limits. Based on this comparison, the need for appropriate treatment should be considered.

Risk Treatment

After the exposed risks are assessed, MFIs should choose the best option to eliminate or mitigate unacceptable risks. Risk treatment options are not necessarily mutually exclusive or appropriate in all circumstances. The options can include the following and can be applied either individually or in combination:

- Avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk.
- Accepting and retaining the risk by making informed decision and having plans for

managing and funding the consequences of the risk if it occurs.

- Reducing the likelihood of the risk through staff training, changing procedures, or by reducing the impact through diversifying credit portfolio, setting up off-site data backup etc.
- Sharing the risk with another party or parties through insurance and credit guarantee.

Selecting the most appropriate risk treatment option involves balancing the costs and efforts of implementation against the benefits derived, regarding legal, regulatory, and other requirements.

One of the most important ways for MFIs to address risks is to put in place adequate risk control mechanisms. The institution should establish and communicate risk limits through policies, standards and procedures that define responsibilities and authority. These limits will help the concerned parties know when the risk becomes unacceptable and align their actions and behaviors with the institution's set risk appetite, risk tolerance, and strategy.

Monitoring and review need to be integral parts of the risk treatment plan to ensure that measures remain effective. The institution's monitoring and review processes should encompass all aspects of risk management process for the purposes of:

- Detection of changing risk sources and factors within and outside the institution,
- Obtaining further information to improve risk assessment,
- Ensuring that controls are effective and efficient in both design and operation,
- Analyzing and learning lessons from events, trends etc., and
- Identifying emerging risks.

1.4 Risk Management Framework

The MFIs risk management framework shall include policies, procedures, limits, and controls in its foundation. This foundation provides adequate, timely, and continuous identification, assessment, measurement, monitoring, mitigation, and reporting of risks posed by its activities at the business line and institution-wide levels.

The success of risk management in MFIs will depend on the effectiveness of the risk management framework providing the foundation and arrangements that are put in place throughout the organization at all levels. The framework should be comprehensive enough to capture all the material risks to which the institution is exposed. It should facilitate processes for assessment and necessary treatment of these risks. The minimum standards of a sound risk management system include the following elements.

1.4.1 Active Board and Senior Management Oversight

The introduction of risk management and ensuring its ongoing effectiveness must come from the top level of the institution. As the board of directors has the ultimate responsibility for the risks taken by the MFI, it must define the risk appetite and risk

tolerance, and set risk strategies. It is responsible for understanding the nature of risks significant to the institution and for ensuring that management is taking necessary steps to implement those strategies and manage accompanying risks.

While the overall responsibility for risk management is recognized to rest with the board of directors, it is the duty of senior management to transform the strategies into operational policies, procedures, and processes for effective risk management. The senior management should be fully aware of the activities undertaken by the institution that could expose it to various risks. It should possess necessary knowledge and skills to be able to align the risk levels with the board's strategies through risk assessment and treatment. Top management should be aware of the MFI risk profile on an ongoing basis and should regularly report it to the board or a board level committee for review.

1.4.2 Risk Management Department and Various Committees

MFIs must have an independent risk management department. As necessary, it may have separate risk management divisions or units within the risk department for overseeing each key risk area. The main functions of the department include the following:

- Managing the process for developing risk policies and procedures,
- Coordinating with business users to prepare functional specifications,
- Preparing and forwarding risk reports, and
- Assisting in the implementation of all aspects of the risk function.

The risk management function should be functionally and hierarchically independent from business and other operational functions. The officials who take and own risks should not be given responsibility for monitoring and evaluating their risks. The Chief Risk Officer (CRO) leading the independent risk management department should have sufficient stature, authority and seniority. He or she should have direct access to the board of directors and should make direct reports to the board or its Risk Management Committee. Safeguards against conflict of interest should be put in place to maintain independence of the risk management function.

The risk management function should be provided with sufficient resources. The risk management department should have sufficient number of personnel who possess the needed experience and qualifications, including market and product knowledge and command of risk discipline. Likewise, adequate budget should be allocated to this function to enable it carry out its crucial function effectively.

Depending upon the size and complexity of the MFI, various committees and sub-committees may be set up for monitoring and controlling risks. These include board's Risk Management Committee and management committees such as Credit Risk Management

Committee, Operation Risk Management Committee, Asset Liability Committee (ALCO), etc.

1.4.3 Policies and Procedures

The board of directors and senior management must formulate and implement risk management policies and procedures to deal with various risks that arise from the MFIs business and operational activities. The MFIs policies and procedures should provide guidance for the day-to-day implementation of broad risk strategies, and generally should include limits designed to shield the institution from imprudent and unwarranted risks. These policies and procedures include not only those relevant to specific risk areas like Credit, Liquidity Management, and Operational Risk Management, but also those related to the overall risk management.

The management body should review risk policies, procedures, and limits in a timely manner and update them when necessary. Further, independent assurance from internal audit about the efficacy of these policies should also be obtained.

1.4.4 Appropriate Management Information System (MIS)

There should be effective MIS for adequate risk monitoring and reporting. When MIS can generate key risk indicators in the form of accessible reports in a timely manner, risk managers can monitor the risk levels continuously and inform senior management and board. The MIS should be able to produce reports in accordance with regulatory requirements. In addition to regular reporting, there should be a system to address any other issues regarding risks observed in an institution. Further, there should be an explicit procedure regarding measures to be taken to address such deviations.

1.4.5 Comprehensive Internal Controls and Limits

Internal control plays a critical role in managing risks of the MFI. With comprehensive internal control structure in place, management will be better able to contain risks within the level commensurate with the institution's risk appetite, risk tolerance, and strategy. An effective internal control system enforces the official lines of authority and provides for appropriate separation of duties. A major part of the internal control structure is the establishment of limits such as limits on liquidity, approval limits, and limits on non-performing assets. These limits ensure that the MFIs management does not take excessive risks while pursuing business targets.

The MFIs internal control system should be adequately tested and reviewed by its internal audit. The coverage, procedures, and findings of the audit regarding the internal controls should be adequately reviewed by the Audit Committee and any material weakness found should be addressed promptly and appropriately

II – Credit Risk Management

2.1 Overview

Credit risk is the risk that a borrower will fail to meet their obligations according to the agreed terms, resulting in economic loss to the financial institution. As with any financial institution, the biggest risk in microfinance is lending money and not getting it back. Credit risk is a particular concern for MFIs because most micro lending is unsecured (i.e., traditional collateral is not often used to secure microloans).

Given the significant weight of the credit risk in the risk profile of microfinance institutions, robust arrangements to manage and control this risk should be put in place. Appropriate governance, processes, and internal controls should exist for accepting, managing and monitoring credit risk, on a group and individual basis. Microfinance institutions must have sound procedures for valuing their credit exposures, which requires the existence of consistent provisioning policies. They should have a forward-looking perspective to evaluate if the arrangements in place are adequate to cope with the credit risk they might be exposed to in the foreseeable future.

2.2 Appropriate Organizational Structure

- Organizational structures vary according to the size, complexity and diversification of activities of MFIs. However, whatever the structure in place, it is important that it facilitates effective management oversight and proper execution of credit risk management and control processes.
- There should be segregation of duties regarding various credit-related functions, such as credit assessment, analysis, approval, disbursement, administration, and monitoring. For large MFIs, different units should be established to perform each function. However, in smaller MFIs where it may not be possible to adequately staff different units, the structure in place should ensure that conflict of interests between these functions are identified and managed and that sufficient checks and balances are in place even if they are within the same unit.
- MFIs should have a Credit Risk Management Function independent of the risk-taking units. This Credit Risk Management Function should have the power to challenge and, if necessary, escalate its concerns to senior management, in relation to credit approval and development of the credit risk management framework. This function should be separated from other credit related functions and must be kept under the CRO, or similar authority or person (second line of defense).

2.3 Credit Risk Strategies, Policies and Procedures

- Credit risk strategy should include an assessment of the credit risk profile of the MFIs and a statement of the institution's appetite to take credit risk for each activity type, product type (such as lending to microenterprises, including group guarantees, stepped lending, and peer monitoring, etc.), economic sector (such as agriculture, energy, retail), geographical location, etc. The credit risk strategy should be communicated through the organization and periodically reviewed at board level or management level.
- Credit strategy should include the identification of target markets and overall characteristics that the MFIs would want to achieve in its credit portfolio, including levels of diversification and concentration tolerances. The credit risk strategy should provide continuity in approach and consider cyclical aspects of the country's economy and the resulting shifts in composition and quality of overall credit portfolio.
- There should be policies in place regarding the information and documentation needed to approve new loans and/or change the terms and conditions of previously approved credits.
- For each type of loan, credit policies and procedures should define criteria for granting loans in a safe and sound manner including, but not limited to:
    - Purpose of credit and source of repayment,
    - Credit approval guidelines along with the underlying authorities to approve credit limits,
    - Process of credit investment, be it non-collateralized loans or collateralized loans, credit recovery and credit inspection - monitoring guidelines,
    - Analysis of borrower's repayment history (including borrowing from other MFIs), current and future capacity to repay based on historical financial trends and future cash flow projections and financial discipline of the customer,
    - Net worth of the borrower and personal guarantors,
    - The proposed terms, conditions, and covenants of the credit agreement,
    - Collateral, methods of its valuation and its sensitivity to economic and market developments,
    - Adequacy, enforceability and liquidity status of collaterals as well as the practical aspects of their mobilization.
- Credit policies must address credit risk in all the microfinance's activities, at both individual and portfolio levels. Such policies should be clearly defined, consistent with the credit strategy and comply with regulatory requirements.

- Credit policies must include clear provisions regarding credit approving authority, defining delegations and exceptions or waivers, and their implementation. Delegation of authority must always be clearly spelled out, considering knowledge and experience.

2.4 Credit Limits and Indicators

- To ensure diversification of risks and limit concentration risk by sector, product and branch, limits on credit exposures should be set for all relevant activities. They may include:
    - Limits on exposure to specific activities or type of products, including collateral and group guaranteed loans;
    - Limits on individual members and groups,
    - Limits on economic sectors/ sub-sectors;
    - Limits on branches and/or exposures to geographic regions;
    - Limits on the credit that may be granted by approving managers.
- These limits should be reviewed and updated periodically, and at least once a year. In addition, MFIs should use early warning indicators to signal at an early stage where there is increased exposure to specific components of credit risk, and should respond to these indicators by assessing whether they point to potential problems in credit quality.

2.5 Credit Granting Processes

Granting of credit should follow predetermined processes:

- Assessment: Credit proposal assessments should be performed at relevant level according to the organization and structure of MFIs. Credit assessment should follow procedures, methodology and operating guidelines describing the necessary nature and extent of due diligence and collection of relevant supporting documents and information based on the borrowers' risk profiles.
- Review: Before submitting them to the approving person, unit and/or committee, the MFI should undertake a review and analysis of loan proposals by a person independent from the initial assessment. While the credit risk management division/unit should generally be given responsibility to organize such review, in smaller organizations an independent review could be done by any appropriate official not involved in credit appraisal and approval process.
- Approval: The designated level of approving authority takes the approval decision, including the approval of specific terms and conditions, based on the initial credit assessment, independent review and analysis.
- Disbursement: Following the notification of the approval decision, disbursement is made by the designated unit/person, following procedures to ensure that all terms and conditions are verified and guarantees, if any, are taken.

- Administration: The credit administration function is responsible for maintaining credit files and ensuring they are kept up-to-date, and for follow-up on necessary actions (such as updating information).

2.6 Credit Risk Monitoring

- Monitoring of credit risk should be performed by the Credit Risk Management Function without any influence of the risk-taking units.
- MFIs should have in place a methodology to adequately classify their credit risk, at portfolio and borrower level. The classification of the credit risk should use quantitative and qualitative criteria.
- Management must continuously review the entire portfolio to assess the nature of the portfolio's delinquency, looking for geographic trends and concentrations by sector, product and branch. By monitoring the overall delinquency in the portfolio, management can assure that the MFI has adequate reserves to cover potential loan losses and verify the accuracy of the provisions.
- MFIs should monitor quality of the credit relationships on an on-going basis and keep updated information on their credit portfolios, and on the risk profiles and situation of the borrowers.
- Loans provided should also be monitored through on-site visits, while repayment capacities of individual customers should be updated regularly for early identification of any adverse developments that may affect repayment of loans.

2.7 Remedial actions

- MFIs should have effective processes and procedures in place for the early implementation of remedial actions on deteriorating credits and management of problematic loans.
- Appropriate remedial measures should be taken without delay, including requiring additional or increased guarantees and collateral.
- Rescheduling may be appropriate. It involves changing the tenure of loans, repayment schedules, and interest rates and is generally to be agreed when the loan is performing but the borrower's needs have changed; where used as a remedial action, it must follow a specific approval process that includes a justification for how it will improve repayment prospects.
- Restructuring includes all aspects of rescheduling and looking at the relationship with completely new dimension requiring additional documents and fresh credit assessment.

Where used as a remedial action, it must follow a specific approval process. Neither rescheduling nor restructuring should be used by way of forbearance.

2.8 Recovery process

- When rescheduling and restructuring are not options or fail to improve the situation, problem loans should be dealt by a specialized recovery unit. This unit should make proactive efforts in dealing with problematic borrowers.
- When all efforts fail, MFIs should write-off loans and liquidate collateral (in case of collateralized loan) to minimize cost.
- Such process should be strictly monitored, require specific level of approval, and specific information to the board and the Nepal Rastra Bank.

2.9 Provisioning Process

Microfinance institutions should have a sound credit loss provisioning methodology, including credit risk assessment policies, procedures and controls, to identify troubled exposures and determine loss provisioning in a timely manner. Since the major portfolio of the microfinance institutions is unsecured, backed by the group guarantee, lack of adequate and timely provisioning of loans is likely to escalate credit risk leading to potential fall out of the institution.

III – Liquidity Risk Management

3.1 Overview

Liquidity is an indispensable factor for the smooth functioning of financial system. Liquidity risk is defined as the risk of incurring losses resulting from the inability to meet payment obligations in a timely manner when they become due or from being unable to do so at a sustainable cost.

Liquidity risk mainly comprises the following aspects:

- **Funding risk** is the risk of not being able to meet any payment obligations due to lack of liquid funds. The operating cash flows may be low for an institution, resulting in the risk of non-fulfillment of its short-term payments and, consequently serious damage in goodwill.
- **Market liquidity risk** refers to the systematic type of risk where the market forces play an important role in making the market volatile. In this situation, an MFI cannot easily cover its obligation due to the external nature of determinant factors. The MFIs may face unpredictably shortage of liquidity.
- **Funding cost risk** is the risk that MFIs can replace maturing funding only at higher costs to fund their assets.

Liquidity risk management should be given primary importance since the financial market is becoming so increasingly interconnected, a liquidity shortfall at a single institution can have system-wide consequences.

3.2 Organizational Structure

- The liquidity risk management and control functions should be an integral part of an organizational framework with clearly defined roles and responsibilities. The divisions/units or committees integrated in the monitoring and decision making processes should be provided necessary authorities. The head or in-charge should review the risk profiles as necessary.
- The MFI should have efficient staffs, reliable system and smooth procedures.
- The liquidity risk management function should be involved in daily monitoring of liquidity risk levels, timely reporting of information, and play crucial roles in implementing liquidity risk management policies. It should be independent and report directly to the Chief Risk Officer.
- The Asset-Liability Committee (ALCO), should oversight both the short and long-term liquidity risks and report periodically to the BODs.

3.3 Strategies, Policies and Procedures

- The MFI should establish liquidity risk management strategies that are appropriate for its objectives, organizational structure, activities, products, and customers. The strategies should outline the targeted assets and liabilities with clear implications for liquidity risk.
- The assessment of its own liquidity risk position and profile is necessary for defining the liquidity risk management strategy and risk appetite to build up a consistent liquidity risk management system. This assessment of the risk profile, risk strategy and risk appetite should be formalized in qualitative and quantitative terms, taking into account forward-looking approach with regard to potential risks as well as changes in business strategies.
- The liquidity risk management strategy should in particular include the actual and targeted liquidity position. The liquidity risk appetite should at least take the form of minimum survival periods under different stress scenarios.
- As a part of liquidity risk management strategy, the MFIs should have funding strategy that provides effective diversification in the sources and tenure of funding. Besides an ongoing presence in its chosen funding markets, MFIs should maintain a good relationship with fund providers to promote effective diversification of funding sources. Medium to long-term funding plans should be aligned with the institution's strategy. Likewise, it should have strategy for uses of funds by considering the potential liquidity risk implications.
- The MFI needs to study its short and long term sources of fund on the basis of forward looking approach. It should also identify alternative sources of funding that strengthen its capacity to withstand during severe institution-specific and market-wide liquidity risk. Potential alternative sources of funding may include:
    - Line of credit with the institutions,
    - Lengthening the maturities of liabilities,
    - New capital issuance,
    - Foreign borrowings.
- Policies and procedures should clearly define the risk management tools that the MFI plans to use for assessment, monitoring and control of its liquidity risk. The steps involved in these tools should be well documented and communicated throughout the organization. The policies should also include measurements of liquidity risk.
- Policies should include clear definition of roles and responsibilities of individuals and teams performing liquidity risk management functions, including balance sheet management, pricing, marketing, reporting and lines of authority.

3.4 Limits and Early Warning Indicators

- The MFI should set limits on concentration of funding by counterparty, product type, geographical markets, etc. in order to control its liquidity risk exposure and vulnerabilities.
- Limits should be used for managing day-to-day liquidity within and across the business lines both under normal and stressful conditions. While assessing how limits would perform under stressful conditions, the MFI should include measures aimed at ensuring that it can sustain during the period of market stress, institution-specific stress and/or a combination of two.
- The MFI should design a set of early warning indicators in order to identify the emergence of increased risk or vulnerabilities in its liquidity position. Such indicators should signal as any susceptible trends and that they indicate to a potential response by the management.
- Early warning indicators can be both qualitative or quantitative in nature and may include:
    - Any kinds of immediate incidents such as earthquake, pandemic or war that may invite the imminent economic shocks,
    - Growing concentrations in either assets or liabilities,
    - Deterioration in quality of credit portfolio,
    - Significant deterioration in earnings performance or projections,
    - Deteriorating third party evaluation (negative rating) about the MFI,
    - Negative media-publicity,
    - Difficulty in accessing longer-term funding,
    - Declining stock price and rising debt costs,
    - Unwarranted competitive pricing that potentially stresses the MFIs.

3.5 Measurement and Monitoring

- The MFI should apply a range of appropriate measurement tools that can comprehensively quantify liquidity risk. The risk measurement tools should include vulnerabilities across normal and stressed conditions over various time horizons. Under normal conditions, prospective measures should identify needs that may arise from projected outflows relative to routine sources of funding. Under stressed conditions, prospective measures should be able to identify funding gaps at different alternative sources of funding.
- The measurement and analysis should be comprehensive and incorporate the cash flows and liquidity implications arising from all material assets, liabilities and other activities of the institution. The analysis should be forward-looking and strive to identify the future

funding mismatches so that the institution can assess its exposure to those mismatches that identify alternative liquidity sources to mitigate the potential risks.

- In the normal course of measuring, monitoring and analyzing its sources and uses of funds, the institution should project cash flows over time under a number of alternative scenarios. These pro-forma cash flow statements are critical tools for comprehensively managing liquidity risk.

- The MFIs should have a reliable management information system designed to provide the board of directors, senior management and other concerned officers with timely and forward-looking information on the liquidity position of the institution. Further, the institutions should have a set of reporting criteria, specifying the scope, manner, and frequency of reporting for various recipients (BODs, Senior Management, ALCO, etc.) and the parties responsible for preparing the reports.

3.6 Reporting

Timely reporting of risk-related information to the concerned authorities is crucial for effective liquidity risk management. The senior management should be able to access the reports related to liquidity position through the MIS directly. The concerned unit heads taking considerations also on the regulatory provisions should explain the liquidity situation and report it to the senior management. The management is responsible in making appropriate decisions and forward it to the BODs for review and final decision. Further, the major issues discussed and decisions made in the ALCO meetings should also be forwarded to the BODs meeting.

3.7 Contingency Funding Plan (CFP)

A Contingency Funding Plan (CFP) is, at its core, a liquidity crisis management instrument. The plan is prepared as a well-defined and standby document to be referred in emergencies. MFIs use CFP as the operational strategy for effective liquidity management during contingent events. So, the CFP incorporates a set of predefined processes, actions and measures to be taken in case the contingent liquidity risks materialize. The market conditions should be analyzed regularly and the CFP should be reviewed as per necessity.

The CFP should ensure that an MFI has adequate sources of funding under various contingent liquidity scenarios. Contingent events may be resulted both from unexpected domestic or external circumstances. Domestic circumstances generally tend to center around economic conditions, interest rate changes, or volatility of financial markets whereas external circumstances may arise from global financial conditions or economic shocks.

There are several factors to be considered while designing a Contingency Funding Plan by an MFI. A comprehensive CFP should encompass the following:

- **Identify Contingent Liquidity Stress.** Possible events may include, but are not limited to, deterioration of asset or credit quality, operating losses, rapid asset growth funded with volatile liabilities, disruption of markets, a noticeable decline in customer relations, and negative press coverage.
- **Assess Severity of Events.** Events will have varying levels of severity and duration. Funding needs may be for short or long period of time. It is critical to evaluate the duration of funding throughout the stressful event.
- **Assess Funding Needs.** A key element to any CFP is a quantitative assessment based on projections developed for each event. Assumptions used in the projections should be realistic and timely. Results are only as reliable as the input data, so it is important to continuously update assumptions as anticipated conditions change. Cash flow shortfalls and potential erosion of funding will vary depending on the scenario and at each stage of the event.
- **Identify Potential Funding Sources.** Once funding needs have been identified, CFP must be put in place to access funds. If liquidity pressure is expected to spread from one funding source to another, MFIs should identify alternative sources for liquidity management. It is vital to ensure that contingent funding sources will be available when needed.
- **Establish Process for Monitoring and Crisis Management.** Management should designate a crisis-management team to execute CFP in the event if some symptoms of potential crisis occur. In a stressful event, communication among all parties involved is crucial, including the crisis-management-team, senior management, and the BODs. Additional information may be required during the period to monitor liquidity situation and adopt necessary steps. Staying alert to early warning symptoms may prevent a potential crisis and minimize the additional suffering.

IV – Operational Risk Management

4.1 Overview

Operational Risk is the risk of direct or indirect loss, or damaged reputation resulting from inadequate or failed internal processes, people and systems or external events. Operational risk has always been inherent to financial institutions and exists in all of their activities. Operational risk arises from human or computer error within daily product delivery and services. It transcends all divisions and products of a financial institution. Operational risk includes unexpected losses due to the inadequate technology and information systems, operational problems, insufficient human resources, or breaches of integrity (i.e. fraud). This risk is a function of internal controls, information systems, employee integrity, and operating processes. For simplicity, this section focuses on just two types of operational risk: transaction risk and fraud risk.

1. **Transaction risk** exists in all products and services. It is a risk that arises on a daily basis in the MFIs as transactions are processed. Transaction risk is particularly high for MFIs that handle a high volume of small transactions daily. When traditional banks make loans, the staff person responsible is usually a highly trained professional and there is a very high level of cross-checking. Since MFIs make many small, short-term loans, the same degree of cross-checking is not cost-effective, so there are more chances of error and fraud. The loan portfolio usually accounts for the bulk of the MFI's assets and is thus the main source of operational risk. As few MFIs also offer additional financial products, including savings, the operational risks multiply and should be carefully analyzed as MFIs expand those activities.

2. Until recently, **fraud risk** has been one of the least addressed risks in microfinance. Also referred to as integrity risk, fraud risk is the risk of loss of earnings or capital as a result of intentional deception by a senior authority, an employee or a client. The most common type of fraud in an MFI is the direct theft of funds by loan officers or other branch staff. Other forms of fraudulent activities include the creation of misleading financial statements, bribes, kickbacks, and phantom loans. Effective internal controls play a key role in protecting against fraud at the branch level, since line staff handles large amounts of client and MFIs funds. While fraud risks exist in all financial institutions, if left uncontrolled, they inevitably increase as fraudulent behaviors tend to be learned and shared by employees. Internal controls should include ex-ante controls that are incorporated within the methodology and design or procedures (prior to operation), as well as ex-post controls that verify that policies and procedures are respected (after operations).

The major sources for operational risk are:

- Inadequate procedures and controls,
- External and internal frauds,
- IT related/ digital activities, and system failures,
- Damage to physical assets,
- Inadequate execution, delivery and management of processes.

4.2 Organizational Structure

- MFIs should develop a clear operational risk governance structure with well defined, transparent and consistent lines of responsibility. The governance structure should be commensurate with the nature, size, and complexity of the activities undertaken by the financial institution. However, in all cases, the operational risk governance function should be fully integrated into the financial institution's overall risk management governance structure.
- A sound operational risk management structure should rely on three lines of defense: the business line management, an independent Operational Risk Management function, and internal audit. How these three lines of defense are implemented in practice will vary according to the size, business and risk profile of the MFI.
- The business line should be responsible for identifying and managing risks inherent in the products, activities, process, and systems for which it is accountable. The Operational Risk Management (ORM) function is mainly responsible for independent review of processes put in place to control operational risk, and for measurement and reporting of the operational risk. In larger MFIs, the ORM function will also be responsible for design, maintenance, and ongoing development of the operational risk framework. This function should directly report to the Chief Risk Officer of the MFI.

4.3 Strategies, Policies and Procedures

- Based on the MFI's risk profile, the operational risk strategy must clearly articulate the nature, types, and levels of risk that the institution is willing to take (risk appetite). While formulating the strategy, the board must understand not only the level and complexity of risks inherent in the MFI's activities, products, services, and systems, but also the expected outcome of not managing those risks. The operational risk strategy should take into account forward-looking aspects with regard to potential risks as well as changes in business strategies.
- Operational risk policies and procedures should include all the relevant operational risk areas and establish a minimum set of operating instructions to have an effective risk management. They should be adequately documented, regularly updated, and available to all relevant staff. These policies and procedures should be aligned to the overall

strategy and should support continuous improvement of risk management. They should be periodically reviewed by the senior management.

- Policies should clearly define operational risk and related losses. MFIs that do not adequately describe and classify operational risk and loss exposure may significantly reduce the effectiveness of their framework.
- These policies and procedures should describe the risk assessment tools and how they are used. Further, they must provide for a common taxonomy of operational risk terms to ensure consistency of risk assessment, measurement, and reporting.
- There must be different policies and procedures for undertaking existing and new activities. There should be tests and more rigorous assessments before undertaking new activities such as launching a new product or opening a new branch.
- The operational risk policies should include clearly assigned authority, responsibility, and reporting relationships to encourage and maintain accountability.

4.4 Assessment and Measurement

- MFIs must identify and assess the operational risk inherent in all products, activities, processes, and systems. The business line should assess for itself the relevant operational risks in their operations considering both internal and external factors. The second line of defense should challenge the business line's inputs to and outputs from, the financial institution's risk management systems.
- To ensure an adequate risk management framework based on their specific situation, historical observations and internal assumptions, the MFIs should quantify their operational risks and not only rely on standard calculation.
- The MFIs must systematically track and record all relevant operational risk data, such as frequency, severity, operational risk losses, and other information on individual loss events or near misses. Analysis of loss events and near misses provide insight into the causes of large losses and information on whether control failures are isolated or systematic. It is also useful to monitor operational risk events affecting other financial institution, as far as available and relevant. Such data may be helpful for predicting future events and losses.
- Scenario analysis are useful tools to assess operational risk, by obtaining expert opinion of business lines and risk managers to identify potential operational risk events and assess their potential outcome.
- Specific attention should be devoted to low-frequency high-severity operational risk events (e.g. major fraud, bribery, etc.) which could deserve a specific process, in particular with regard to the timely information of the top management.

4.5 Monitoring and Reporting

- Senior management should implement a process to regularly monitor operational risk profiles and material exposures to losses. Regular monitoring enables timely detection and correction of deficiencies in procedures, controls, and systems thereby substantially reducing the frequency and severity of risk events.
- Operational risk management and monitoring require an adequate internal reporting framework for making regular reports to the appropriate levels of the institution, to inform the senior management and the board on the implementation of the risk strategy and the extent to which the risk appetite is reflected in actual risks being taken by the financial institution. The reports should be comprehensive, accurate, consistent and actionable across business lines and products.
- The reporting on operational risk should be adequately structured to meet the needs of the appropriate management levels and of business and control units.
- Operational risk reports may contain internal financial, operational, and compliance indicators, as well as external market or environmental information about events and conditions that are relevant to decision making.
- Operational risk reports should include:
    - Monitoring indicators;
    - Breaches of the institution's risk tolerance level, as well as thresholds and limits;
    - Details of recent significant internal operational risk events and losses; and,
    - Relevant external events and any potential impact on the financial institution and operational risk capital.

4.6 Contingency Planning

- The partial or complete failure of one or several critical business processes or products represents a material operational, as well as reputational risk, for any institution. Planning is required for the actions which the institution may take in response to failures.
- Contingency Planning refers to the set of predefined processes, actions and measures to be taken in case significant operational risks materialize, to enable the institution to face emergency situations. It should be implemented especially for all high-severity operational risks, which have the potential to disrupt the daily business or threaten the existence of the institution.
- Business Continuity Management (BCM) relates to the measures to ensure that critical business processes can be continued in the event of an emergency and the activities necessary

to return to business as usual levels. IT continuity management is an integral part of the BCM.

- Business Continuity Plan (BCP) describes plans that allow an organizational unit's time-critical activities and business processes to restore operational status in the event of an emergency. A BCP defines strategies and options for various scenarios relating to a specific area and its processes. The BCP should identify all time-critical activities, business processes or resources and determine their maximum tolerable downtimes. The plan should be tested periodically to ensure that they are likely to be effective in case of need.

V – Market Risk Management

5.1 Overview

Market risk can be defined as the risk of losses in On-balance sheet and off-balance sheet positions arising from adverse movements in market prices. Market risk comprises interest rate risk and foreign exchange rate risk.

Interest rate risk is the exposure of a financial institution's condition to the adverse movement in interest rate. Changes in interest rates affect an institution's earnings and also affect the underlying value of the institution's assets, liabilities and off-balance-sheet instruments. Also known as asset and liability management risk, interest rate risk is a critical treasury function, in which financial institutions match the maturity schedules and risk profiles of their funding sources (liabilities) to the terms of the loans they are funding (assets).

In MFIs, the greatest interest rate risk occurs when the cost of funds goes up faster, not allowing the institution to adjust its lending rates. The cost of funds can sometimes exceed the interest earned on loans and investments, resulting in a loss to the MFI. Interest rate changes can also affect fee income, since most fee income is associated with loan products that are interest rate sensitive. Interest rate risk management is most important to MFIs that make longer-term loans and rely on external borrowing for a large percentage of their funds.

Foreign exchange risk occurs when an MFI holds cash or other investments (assets) or debt (liabilities) in foreign currency. MFIs most often experience foreign exchange risk when they borrow in one currency and lend in another. MFIs primarily need to be concerned about foreign exchange risk when they assume liabilities denominated in a foreign currency and convert these funds into assets denominated in a local currency.

Financial institutions should have in place robust governance arrangements, including a clear organizational structure with well-defined, transparent and consistent lines of responsibility, effective processes to identify, manage, monitor and report the risk they are or might be exposed to. They should have adequate internal control mechanisms and systems for the identification, evaluation and management of the risk arising from potential changes in interest rates that affect their activities. The risk appetite in relation to foreign exchange risk should be assessed keeping in view the capital of the MFI, as well as exposure to other risks. Once the foreign exchange risk appetite is determined, the institution should develop a foreign exchange risk taking strategy in order to maximize returns while keeping exposure to foreign exchange risk at or below the pre-determined level.

5.2 Organization Structure

- The organization of the market risk management depends on the nature, size and scope of activities of the MFIs, the complexity and nature of its business, as well as on the level of interest rate and foreign exchange risk exposure.
- Risk management function should be engaged in monitoring market risk levels, setting out market risk indicators, timely and accurate reporting of important market risk related information, and in the development of market risk management policies. The head of this function should directly report to the Chief Risk Officer.
- MFIs should clearly define the individuals and/or committees responsible for managing market risk and should ensure that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest.
- Depending on the size, risk exposure, and diversity of activities, MFIs should establish an Asset Liability Committee (ALCO) to oversee the management of interest rate risks as well as foreign exchange risk.
- An appropriate Management Information System (MIS) should be implemented to identify measure, monitor and report market risk related reports to senior management and the board.

5.3 Strategies, Policies and Procedures

- Based on their risk profile, MFIs should establish an appropriate interest rate risk strategy, taking into account composition, tenure and diversification of loans, deposit and investment. As interest rate risk strategy taken by MFIs have a significant impact on profitability and capital, the strategy should therefore reflect a proper alignment between interest rate risk profile and business plans and should have proper risk management system in place.
- Interest rate risk policies and procedures should be clearly defined and consistent with the nature and complexity of their activities. They should delineate a clear set of institutional procedures for managing portfolios, and controlling the total interest rate risk exposure. All interest rate risk policies should include specific procedures and approvals necessary for exceptions to policies. They should be reviewed periodically and revised as needed.
- On the basis of the MFI's risk profile and the level of foreign exchange risk it is willing and/or able to take, it should develop a strategy to manage its foreign exchange risk. The foreign exchange risk strategy should be aligned with the institution's objectives, risk appetite and risk tolerance. The foreign exchange risk strategy should be periodically updated, and regularly reviewed to accommodate changes in business/strategic plan and significant developments in the external operational environment.

- MFIs must have appropriate strategies, policies and procedures in place to perform effective risk management that maintains interest rate risk within prudent levels, as is essential for the safety and soundness of the institution.

5.4 Limits

- Interest rate risk policies should identify quantitative parameters that define the acceptable level of interest rate risk for the microfinance institution. It must establish and enforce operating limits and other practices that maintain exposures within levels consistent with the internal policies.
- To control its foreign exchange risk exposure and vulnerabilities, an MFI should set limits. The limit system should be established, taking into account the institution's risk appetite, in order to mitigate foreign exchange risk, taking due account of risk concentrations.
- Based on the size, complexity and diversity of activities, limits should be specified for portfolios and activities, along with further specific procedures and approvals necessary for exceptions to limits, and authorizations.

5.5 Measurement and Monitoring

- MFIs should set up appropriate market risk measurement systems that capture all material sources of interest rate and foreign exchange risk and that assess the effect of interest rate changes.
- The assumptions underlying the system should be reasonable and clearly understood by those engaged in the management of market risk. MFIs must have an integrated view of market risk across activity, products and business lines.
- To ensure proper monitoring, MFIs should have in place adequate information systems for measuring, monitoring, controlling, and reporting market risk exposures on a timely basis to board, senior management and concerned parties.
- Stress tests should be undertaken to assess vulnerability to interest rate changes. Microfinance institutions should develop their own scenarios as appropriate, taking into consideration their risk profile. Scenarios should be used to assess vulnerability to losses under stressful market conditions. Results from stress testing should be considered when reviewing their policies and limits for interest rate risk.

5.6 Internal Control

- MFIs should have adequate system of internal controls requiring regular independent reviews and evaluations of the effectiveness of the market risk management process. There should be appropriate revisions or enhancements to internal controls. These internal controls

should be an integral part of the institution's overall system of internal control and be consistent with the regulatory requirement and policies.

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