RECOVERY PLANNING GUIDELINES FOR BANKS AND FINANCIAL INSTITUTIONS, 2023

BANK OF TANZANIA

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	PART I PRELIMINARY
Introduction and rationale	1. (1) Banks and financial institutions may face adverse stress events which pose financial and operational risks. Apart from having contingency plans to enable them to respond to, and recover from, adverse stress events, they should have recovery plans to address more severe and wide-ranging adverse scenarios to ensure stability of the financial system. (2) The Bank has developed these guidelines for the purpose of providing guidance to banks and financial institutions developing their recovery plans in order to protect their critical functions so as to uphold public confidence in the financial system during severe stress situation. (3) These guidelines set out key principles, requirements and supervisory prospects on the development and maintenance of recovery plans.
Interpretation	2. In these guidelines, unless the context otherwise requires: "Act" means the Banking and Financial Institutions Act, 2006; "Bank" means the Bank of Tanzania; "bank" has the same meaning ascribed to it in the Act; ''Critical function" is a service or a collection of services normally performed by a unit that must continue at a sufficient level without interruption or restart within given timeframes (within the first 30 days) after a disruption to the service. "financial institution" has the same meaning ascribed to it in the Act; ''Material risks'' are risks with grave consequences regardless of the frequency at which they occur; "recovery plan" means the plan prepared and maintained by banks and financial institutions based on the requirements set out in these guidelines and when necessary, executed by banks and financial institutions to deal with severe stress events that threaten the stability of the banks and financial institutions; and "restoration point" means a stage at which a bank or financial institution has restored its prudential requirements or market confidence following successful activation of a recovery option.
Citation	3. These guidelines shall be cited as Recovery Planning Guidelines for Banks and Financial Institutions, 2023.

Authorization	4. These guidelines are issued under Section 71 of the Banking and Financial Institutions Act, 2006.
	PART II **APPLICATION AND SCOPE**
Application	5. These guidelines shall apply to all banks and financial institutions.
Preparation of the Recovery Plan and Action Plan	6. (1) Every bank or financial institution shall prepare a Recovery Plan that shall be approved by the Board of Directors. (2)A Recovery Plan under clause 4 (1) shall, at minimum: (a) cover all material risks that are linked to critical functions and shared services; (b) provide an assessment of recovery options including the manner in which each option will address adverse scenarios such as uncovered losses, liquidity shortfalls and capital inadequacies; (c) ensure that the options referred to item (b) can be implemented in a timely and effective manner and must be proportional to the size and complexity of the bank or financial institution; and (d) be aligned with recovery plans of group, foreign subsidiaries and branches. (3)A bank or financial institution shall prepare an action plan to ensure implementation of the recovery plan including periodic testing and review, updating triggers and indicators for plan improvement.
Structure of the Recovery Plan	7. (1) The Recovery Plan shall cover the following: (a) Executive summary (b) Governance and risk management (c) Documentation and data (d) Scope (e) Critical functions (f) Scenarios analysis (g) Early warning indicators and triggers (h) Recovery options (i) Testing, feasibility and updating (j) Communications (k) Cross border cooperation and coordination (2) A bank or financial institution shall ensure that, a recovery plan is

	legible, self- explanatory, clear and uses appropriate language and definitions.
Executive summary	8. A bank or financial institution's recovery plan shall have an executive summary which shall, at minimum, encompass: (a) information on the triggers for execution of recovery plan; (b) internal escalation and decision-making processes; (c) recovery options and communication strategy; (d) its integration with the risk management frameworks; and (e) review of scenario and recovery options.
	PART III **GOVERNANCE AND RISK MANAGEMENT**
Governance	9. A bank or financial institution shall institute a sound governance structure to oversee, manage and execute the recovery plan. For this purpose, it shall establish: (a). well-defined roles, responsibilities and accountabilities of the board, senior management, business units and control functions; and (b). robust policies, procedures and management information systems to support informed decision making, early warning and recovery phases, in order to ensure that the recovery plan is executable in an effective and efficient manner.
Board of Directors' responsibilities	10. The Board of the bank or financial institution shall exercise effective oversight on all aspects of the development, updating and implementation of the recovery plan. At minimum, the Board shall: (a) approve the Recovery Plan; (b) ensure availability of sufficient resources to support the development and updating the recovery plan; (c) ensure that the recovery plan is integrated with existing risk management framework and is complementary and closely linked to the institution's strategic and contingency plans; and (d) receive and review assurance reports on the adequacy of the Recovery Plan from internal, external or independent party.
Senior Management Responsibilities	11. The senior management shall be responsible for the development, updating, activation and implementation of recovery plan. In this capacity, the senior management shall: (a) develop Recovery Plan and policies necessary for managing and controlling stress events and ensuring continuity of critical

	business functions; (b) develop detailed recovery options for specific stress events identified in the Recovery Plan; (c) assess the strategic and structural implications of potential recovery options; (d) designate a senior officer responsible for driving the overall recovery planning process; (e) ensure that the recovery planning process is undertaken with the appropriate level of involvement of key personnel across core organizational functions; (f) ensure the robust and credible application of expert judgement and critical scrutiny in the development of the risk modelling and quantitative risk methodologies used in determining recovery indicators and conducting scenario analysis; (g) ensure that well-defined processes and management information systems are developed to provide good quality and granular data for timely risk communication within the bank or financial institution and risk reporting to the Board and senior management, on an ongoing and ad- hoc basis; (h) regularly update the Board on material developments relating to recovery planning including the status of recovery indicators, breaches of recovery thresholds, preparatory measures to be undertaken, activation of the Recovery Plan, and implementation of recovery options and its progress; (i) review the Recovery Plan at least annually, or after significant changes to its legal or realization structure, business activities or its financial situation or after the results of Recovery Plan simulation exercise; and (j) receive escalation reports from the designated officer on any breaches of recovery thresholds.

Activation of Recovery Plan	12. Pursuant to guideline 4 the senior management of a bank or financial institution shall: (a) assess the nature and extent of the viability threat; (b) deliberate on the next course of action in consultation with the Board on whether to activate the Recovery Plan; (c) notify the Bank in advance of its intentions to activate its Recovery Plan. In notifying the Bank, a bank or financial institution shall include: (i) an explanation of events and circumstances leading to the breach of the recovery threshold; (ii) management actions that have been taken, if any; and (iii) management actions that are intended to be taken, including the implementation of recovery options drawn from the preferred recovery strategy or any other option deemed appropriate under these circumstances. (d) in consultation with the Board, decide on whether to transition back to the early warning or business as usual phase upon the successful implementation of recovery options.
Internal control system	13. (1) A bank or financial institution must ensure that the recovery plan is reviewed by an independent party, which may either be the internal audit function, compliance function or an external party with the objective to provide independent assurance on the: (a) accuracy of data and information provided in the plan; and (b) robustness of processes and methodologies used in developing the plan. (2) at minimum, such reviews shall be carried out after the initial development or following significant updates to the Recovery Plan with the results reported to the Board and senior management.
Risk Assessment	14. (1) A bank or financial institution shall ensure that Recovery Plan is integrated within the bank's risk management framework such as linkage to the risk appetite statement, Internal Capital Adequacy Assessment Process, Internal Liquidity Adequacy Assessment Process and Business Continuity Plan. (2) A bank or financial institution shall at least once a year, conduct an institutional and system-wide risks assessment in respect of the identified mission, business strategy, core business functions, critical shared services and ascertain potential for major disruptions. Risk

	assessment is at minimum expected to: (a) Identify unacceptable concentrations of risk and what are known as 'single point of failure'; (b) Ensure recovery plan is updated regularly to reflect the changes in the system and institution's operational risk profile; and (c) Specify events that should prompt activation and implementation of the recovery plan.
	PART IV **DOCUMENATION AND DATA**
Documentation and Data	15. A bank or financial institution's Recovery Plan shall document all activities, processes and provide material information during the recovery planning process with all necessary reports needed by the regulator as detailed in **Appendix 1**.
	PART V **CRITICAL FUNCTIONS AND SERVICES**
Overview Critical functions and Services	16. Continuity of a bank or financial institution's critical functions and services is essential in preventing potential disruptions that could adversely impact its operations. 17. (1) A Recovery Plan shall provide an overview of a bank or financial institution's business model at a high-level, describing its activities, including significant business lines. (2) A bank or financial institution shall identify its critical functions and services delivered or received from counterparties in the course of its operations. In identifying critical functions and services, the bank or financial institution shall consider the following: (a) Whether a failure or discontinuity of such functions or services would likely lead to the disruption of operations that are essential for the functioning of the entity; (b) contribution of the business line to its profit, assets, capital, liabilities, or risk profile; (c) strategic significance of the business line in relation to: (i) customer base, geographic reach and branch network; (ii) market potential and growth outlook;

	(iii) indicative value under the current operating environment, taking into account the provision of market access or international linkages to the bank or financial institution; (iv) operational synergies with other business lines; (v) attractiveness to competitors as a potential acquisition target; and (vi) other factors that contribute to the business line's significance to the bank or financial institution. (3) A bank or financial institution shall at minimum assess the criticality of functions and services as provided in Appendix 3 and 4, and identify any additional functions and services deemed critical. (4) Following identification of the critical functions, a bank or financial institution shall consider in its Recovery Plan, the impact of disruptions on its operations and ability to continue providing services to customers and participation in financial markets infrastructure (local and foreign). (5) A bank or financial institution shall assess the impact of disruption of the critical function and services applying the indicators in **Appendix 5**.
	PART VI **SCENARIO ANALYSIS**
Overview	18. A bank or financial institution shall conduct analysis of a range of stress scenarios in order to assess: (a) the adequacy of the recovery indicators in detecting impending stress and enabling timely activation of the Recovery Plan; and (b) the efficacy and feasibility of recovery options to restore viability.
Scenario analysis	19. (1) A Recovery Plan shall be based on a range of clearly-articulated, severe but plausible, firm-specific, market-wide, and systemic stress scenarios. At minimum, the stress scenarios shall: (a) be comprehensive and consider severe events that may threaten business continuity and the viability of the bank or financial institution; (b) integrate the scenarios used by the bank or financial institution in conducting stress testing; and (c) indicate the impact on breach of regulatory capital and liquidity ratios. (2) To conduct the analysis, a bank or financial institution shall develop a set of stress scenarios, incorporating adverse events that are: – (a) relevant to the bank or financial institution's size, risk profile, complexity of its activities, intra-group and external dependencies, and systemic interconnectedness; (b) severe enough to threaten the viability of the bank or financial

	institution unless recovery options are successfully capable of being implemented in a timely manner, i.e. near non-viability; and exceptional yet plausible in order to ascertain whether available recovery options are realistic, impactful and implementable to address potential viability threats; and (3) a bank or financial institution shall develop a set of diverse stress scenarios to ensure the relevance of the Recovery Plan under a range of adverse and severe conditions. At minimum, stress scenario shall include: (a) an institutional stress scenario, incorporating events that are institution-specific and could directly threaten the operations of core business lines or the entire bank or financial institution; (b) a market-wide stress scenario, incorporating events that materially affect the functioning of the real economy and financial system; and (c) a combined stress scenario, in which the market-wide and institutional stress events interact and occur simultaneously. (4) In assessing scenarios, a bank or financial institution shall consider at a minimum stress event as in **Appendix 7**.
	PART VII **RECOVERY INDICATORS**
Recovery Indicators	20. A bank or financial institution shall establish recovery indicators in the Recovery Plan that set out clearly defined criteria and thresholds in order to: (a) enable timely risk monitoring and management across business as usual, early warning, and recovery phases in a cohesive manner; (b) facilitate prompt identification and escalation of key vulnerabilities and stress events which could adversely affect the bank or financial institution; (c) ensure prompt consultations with the Board and timely activation of the Recovery Plan; and (d) minimize delays in implementation of recovery options.
Selection of Indicators	21. (1) A bank or financial institution shall develop a set of quantitative and qualitative recovery indicators that are: (a) tailored to the size and complexity of its business model or operations, as well as its inherent risk drivers and strategy; (b) clearly defined, reliable, forward looking and suitable for close monitoring of evolving stress events;

	(c) diverse to capture an extensive range of stress scenarios of varying nature and severity; and (d) aligned with existing indicators in the bank or financial institution risk management framework for risk monitoring, escalation and for decision making. (2) in developing recovery indicators, a bank or financial institution may assess the applicability of the recovery indicators as listed in **Appendix 7** and any other additional indicators.
Establishment of thresholds	22. (1) For each applicable recovery indicator, a bank or financial institution shall establish an early warning and a recovery threshold to facilitate the implementation of recovery options under different stress scenarios. The establishment of these thresholds shall, at minimum, take into consideration: (a) impact and time required for successful implementation of recovery options; (b) magnitude and speed of deterioration under various stress scenarios; and (c) alignment with the bank or financial institution's risk appetite and risk management frameworks, including interactions with risk limits/thresholds identified under the existing risk monitoring, escalation and decision-making frameworks during business as usual and early warning phases. (2) A bank or financial institution shall establish: (a) recovery thresholds at a level (before the point of non-viability) that provides reasonable time based on realistic assumptions to implement, and realize the benefits of, recovery options; and (b) early warning thresholds at a level (before the recovery thresholds) that allows adequate lead time to intensify monitoring and prepare for the implementation of recovery options.
	PART VIII **RECOVERY OPTIONS**
Overview	23. A bank or financial institution shall develop and maintain a set of actionable and credible recovery options to restore financial soundness and preserve its long-term viability. Such recovery options shall be: (a) substantially within its direct control; (b) supported by a clear implementation plan; and (c) capable of being executed within an appropriate timeframe to ensure reasonable prospect of recovery and enhance the survivability of the bank or financial institution across different

	stress scenarios.
Development of recovery options	24. (1) In developing the set of recovery options, the bank or financial institution shall: (a) consider measures that: (i) restore or improve capital and liquidity positions; (ii) de-risk and reduce leverage; (iii) secure adequate and diverse funding sources (with due consideration to availability of eligible collateral in terms of volume, quality and location and its potential drawing capacity), including possible intra-group financial support; and (iv) allow for voluntary restructuring of liabilities e.g. via debt-to-equity conversion where relevant. (b) ensure options are sufficiently diverse to deal with an extensive set of severe stress events that may threaten its viability; (c) not include in the options the possibility of support from the Bank, or access to any exceptional financial support from public funds; (d) seek to minimize potential contagion effects associated with recovery options, including those involving intra-group financial support; (e) provide for measures necessary to preserve business continuity capabilities to support operations and implementation of recovery options; (f) ensure that the recovery options are sequenced in the order of priorities in addressing stress situations and with implementation timeframe; and (g) provide quantitative analysis, at minimum in respect to capital and liquidity restoration. (2). A locally-incorporated foreign bank or financial institution shall include recovery options involving assistance from parent and/or foreign related entities but only if such assistance is: (a) contractually committed by the relevant entity; or (b) explicitly provided for in the group's recovery plan that has been submitted to the home supervisory authority. (3). The set of recovery options shall include measures that may have permanent structural or strategic implications on the bank or financial institution and shall be applicable in severe stressed circumstances. Recovery options may include: (a) sale, transfer or disposal of part or the whole of assets, business lines or subsidiaries; (b) raising additional capital through rights issues, private placements, the conversion of contingent capital instruments

	and voluntary debt to equity conversions; (c) accessing additional funding or using liquid assets to generate cash; (d) cost reductions from the suspension of dividends and variable remuneration, or of major projects and expenditures; (e) changes to the business model to de-risk the business; and (f) restructuring of liabilities. (4). Detailed recovery options are provided in **Appendix 1**.
Assessment of Recovery Options	25. (1) For recovery options identified, a bank or financial institution shall undertake the following: (a). impact assessment to measure the probable success and potential benefits of the recovery option in ensuring the long-term viability of the bank or financial institution without jeopardizing the continuity of critical functions and services; and (b). feasibility assessment to assess the execution readiness, including the identification of implementation barriers and their corresponding remediation measures. (2) For purposes of conducting the impact and feasibility assessments of recovery options, a bank or financial institution shall: (a). place more emphasis on long-term viability effects in addition to its ability to address immediate stress (short-term remedies), when ascertaining the benefits of each recovery option; (b). consider any foreseeable impact on resolvability, particularly the creation of potential barriers for orderly resolution arising from the resultant structural or strategic changes following the implementation of specific recovery options; and (c). apply rigorous and conservative assumptions to avoid overestimating the effectiveness and credibility of the recovery options. (3) To enhance its overall preparedness (i.e. its capacity and agility to respond to various stress events), a bank or financial institution shall conduct impact and feasibility assessments: (a) without referring to a specific stress event to allow for the identification of a set of recovery options, that would enable it to respond flexibly during crises and serves as a reference point to compare the effectiveness of recovery options under defined stress scenarios; and (b) under defined stress scenarios in order to test for the efficacy of recovery options, the recovery indicators and the overall recovery capacity.

Presentation of recovery options in the Recovery Plan	26. A bank or financial institution shall: (a) at minimum, indicate general information, impact assessment, feasibility assessment, applicability to stress scenarios and execution process for each recovery option as set out in **Appendix 2;** and (b) provide a comparative summary of all relevant recovery options assessed.
	PART IX **TESTING OF THE RECOVERY PLAN**
Testing	27. (1) A bank or financial institution shall test the Recovery Plan at least once in two years covering areas at minimum as indicated in appendix 4 in order to: (a) identify potential shortcomings in the plan; (b) demonstrate how the arrangements set out in the plan would work in practice; and (c) improve overall crisis preparedness. (2) In testing Recovery Plan, the bank or financial institution shall: (a) put in place processes that will facilitate for periodically testing the feasibility of its recovery options to see if can be implemented successfully. (b) ensure the testing scenario analysis and simulation-type of exercises may include, desktop simulations, fire drills or 'live' simulations, and back testing. (c) initially opt to test specific parts of the recovery plan, such as: (i) the efficiency and efficacy of governance arrangements to activate the Recovery Plan and implement recovery options; (ii) the operational capacity of the institution to execute specific recovery options; or (iii) the capacity of management information systems to produce the information required to support decisions on activation of the Recovery Plan. (d) indicate clearly the feasibility of each recovery option which include: (i) the time it may take to implement; (ii) the time it may take before the benefits realization; (iii) potential obstacles to implementation; and (iv) any need for preparatory measures to facilitate the implementation of each recovery option.

	(e) analyze the impact of each recovery option, including not only its intended purpose but the risk of any unintended consequences. These analyses should also include the feasibility and impact of undertaking multiple recovery options at once, inter-dependencies among recovery options, and the effectiveness and limitations of recovery options during a market-wide crisis. (f) apply the outcome of the test to update the Recovery Plan.
	PART X **COMMUNICATION STRATEGY**
Communication strategy	28. (1) A bank or financial institution shall establish a testing strategy for Recovery Plan that at minimum: (a) include plans for internal and external communication for each specific recovery option, to keep staff, investors, supervisors, and other stakeholders informed when one or more recovery options are activated; (b) have management reporting systems in place and shall assess adequacy of its existing policies and procedures, management information systems, and reporting system for proper implementation of Recovery Plan; (c) keep monitoring of the overall recovery situation and inform the Board of directors with sufficient data and information to give clear picture of the situation and enable them to make decision; (d) notify the Bank any significant breach of trigger and any action taken or to be taken in response to such breach. (e) address when and how it will notify other external parties of its action under the Recovery Plan without creating tension to the market and the general public. (f) clarify when and how it would obtain required regulatory or legal approvals and may include information that the Bank and other relevant stakeholders requires related to the Recovery Plan.
	PART XI **CROSS-BORDER CORPORATION AND COORDINATION**

Cross-border corporation and coordination	29. (1) A bank or financial institution which is a subsidiary shall prepare its own distinct Recovery Plan irrespective of the group Recovery Plan. (2) A bank or financial institution with foreign operations, the Recovery Plan should deal with recovery strategies for the whole group, but with distinct recovery plans for the subsidiaries and branches.
	PART XII **MISCELLANEOUS**
Regulatory Sanctions and Penalties	30. Without prejudice to penalties and actions prescribed by the Act, the Bank may impose on any bank or financial institution any of the following sanctions for non-compliance: (a) a penalty of the amount to be determined by the Bank; (b) prohibition from declaring or paying dividends; (c) suspension of the privilege to issue letters of credit or guarantee; (d) suspension of lending and investment operations; (e) suspension of capital expenditure; (f) revocation of banking license; and (g) disqualification of any officer or director from holding any position or office in any bank or a financial institution under the supervision of the Bank.
Legal and regulatory requirements	31. The implementation of this Recovery Plan should be read together with other relevant laws, regulations, directives, guidelines or circulars including: (a) The Banking and Financial Institutions (Liquidity Management) Regulations, 2014; (b) The Banking and Financial Institutions (Prompt Corrective Action) Regulations, 2014; (c) The Banking and Financial Institutions (Capital Adequacy) Regulations, 2014; (d) The Banking and Financial Institutions (Corporate Governance) Regulations, 2021 (e) Business Continuity Management Guidelines for banks and financial institutions, 2021 (f) Risk Management Guidelines for banks and financial institutions, 2010; (g) Stress Testing Guidelines for banks and financial institutions, 2022; (h) Contingency Planning guidelines for Banks and Financial

	Institutions, 2022; and (i) Any other regulations, directives, guidelines or circulars issued by the Bank, from time to time
	PART XIII **AMENDMENTS OF THE GUIDELINES**
Review	32. (1) The Bank may at any time amend, delete, vary, add or change any provision of these Guidelines and such amendments, division, variations or change shall become effective from the date of notification to banks and financial institutions by the Bank. (2) Such notification may be effected through a circular, directive, notice, letter or other means communicating the amendments to banks or financial institutions generally. Emmanuel M. Tutuba APPROVED Apr 6 2023 10:11 PM DocuSign Dar es salaam **EMMANUEL M. TUTUBA** Governor

APPENDICES

Appendix 1: List of potential recovery options

Recovery option	Descriptions
Capital raising	(a) External share capital increase (b) Share capital increase by parent institution (c) Additional Tier 1 capital increase (d) Tier 2 capital increase (e) DSIB capital increase
Disposal	(a) Sale of banking branch/subsidiary (b) Initial public offering of banking subsidiary (c) Sale of banking minority stake (d) Sale of non-banking entity (e) Sale and lease-back transactions
Asset sales	(a) Stocks (b) Bonds (c) Real estate (d) Transfer of assets (e) Other illiquid assets
Liability management	(a) Rollover issuance of Additional Tier 1 instruments (b) Rollover issuance of Tier 2 instruments (c) Internal liquidity support from parent institution (d) Internal liquidity support from affiliated (non-parent) institution (e) Repurchase of liabilities under book value (f) Liquidation of collateral in case of customer default (g) Adjustment of existing credit lines within the credit business (h) Utilization of existing lines (i) Cease trading activities (j) Intensify deposit retention efforts i.e. customers incentives
Cost savings	(a) Containment / reduction of staff costs (e.g. cancel bonus payments, reduction of working time, cut in voluntary benefits) (b) Stop/delay investments in facilities and equipment (c) Stop/delay investments in IT (d) Major expenditure cutbacks / realization (e) Renegotiation of existing contracts

Earnings retention	(a) Non-payment of coupon on Tier 1/Tier 2 issues (b) No distribution of dividends
Access to wholesale funding	(c) Repurchase agreement (d) Issuance of covered bonds (e) Issuance of unsecured bonds
Reduction of riskiness/ improvement of risk profile	(a) Reduction of new business origination (b) Syndication of existing loans (c) Sale of existing loans (d) Securitization (e) Synthetic securitizations (f) Early termination of derivatives in banking book
Mergers	Merger with affiliated institution or non-affiliated institution

Appendix 2: Information on each recovery option

Key areas	Detailed analysis and description/information required
(a) General information	(i). Description and quantum (e.g. size of issuance, value of subsidiary to be disposed, portfolio volume, magnitude of cost reduction) of the recovery option (ii). Assumptions underpinning the recovery option (iii). Relevant personnel/committees which are primarily responsible for developing, maintaining, implementing and approving the recovery option, including description of specific governance arrangements (e.g. intra-group coordination) for the implementation of recovery option, if any (iv). Estimated time required for implementation and realization of benefits of the recovery option (v). Estimated implementation cost, including cost arising from, e.g.hiring advisors, restructuring charges, sales commissions
(b) Impact assessment	Financial, strategic, operational, stakeholder and systemic impact assessments and assumptions underpinning the assessments (e.g. valuation assumptions which incorporates value and marketability of assets/businesses, behavior of other market participants)
(c) Feasibility assessment	Assessment of overall feasibility and assumptions underpinningthe assessment
(d) Applicability to stress scenario	Assessment of applicability of recovery options under different stress scenarios (i.e. system-wide, idiosyncratic, fast-moving, slow-moving) and justification/considerations to supportassessment
(e) Execution process	(i). Necessary procedures/steps to implement the recovery option (ii). Specific communication plans with internal, external and other stakeholders to support implementation

Appendix 3: List of Potential Critical Functions

Critical Function	Details
Deposit-taking and savings	(a) Customers demand and savings deposits (b) Fixed or short term customer term deposits (c) Demand and saving deposits from Corporates (d) Term deposits from corporates
Lending and loan servicing	(a) Secured lending to individuals (b) Unsecured lending to individuals (c) Secured lending to SMEs (d) Unsecured lending to SMEs (e) Secured lending to private Corporates (f) Unsecured lending to private companies (g) Secured and unsecured lending to Government and public institutions (h) Trade finance (i) Leasing (j) Project financing
Payment, clearing and settlements	(a) Payment infrastructure through TISS, TACH, Internet, ATMs, Central Depositories, Mobile Money, Cross-border transactions such as EAPS, SIPS, Money Gram, Western Union (b) Payment and Settlement of Foreign Currency (c) Remittances
Financial and Capital markets	(a) Money market (b) Treasury bills and bond market (c) Equity market (d) Corporate bond market
Wholesale Funding Market	(a) REPO market (b) Reverse REPO market (c) Interbank cash markets (d) Borrowing and lending among institutions

Appendix 4: Critical Services

S/n	Services	Details
1.	Treasury services	(a) Treasury Activities (b) Booking arrangements (c) Collateral management
2.	Risk management and valuation	(a) Centralised risk management (b) Risk management units, by business line and risk type (c) Embedded risk managers (d) Risk report generation (e) Risk IT infrastructure and personnel
3.	Accounting	(a) Statutory reporting (b) Regulatory reporting (c) Valuation activities for market positions (d) Management reporting
4.	Physical operations	(a) Cash handling (b) Access control (c) Security
5.	Human resource support	(a) Payroll (b) Staff administration(contracts) (c) Communication for human resources
6.	Information Technology	(a) Data storage and processing (b) IT infrastructure, workstations, servers, data centres and related services (c) Software licenses and applications (d) Access to external providers (e.g. Bloomberg, stock exchanges) (e) Application maintenance (software application maintenance and related data flows, to be limited to corrective maintenance during stress) (f) User support (g) Disaster recovery solution
7.	Legal services and compliance	(a) Corporate legal support (b) Business/transactional legal services (c) Compliance support

Appendix 5: Impact Assessment Criteria for Disruption of Critical Function

Areas	**Analysis Required,**
Impact of discontinuance	1. Impact on customers and relevant stakeholders including counterparties related to main customers, service providers, suppliers, utilities, public services, and government which are affected by the function, taking into account – (a) Impact and speed of disruption to financial health, customer business, and short-term liquidity needs of customer base and relevant stakeholders; and (b) Capacity and speed of counterparties, customers and the public to react to the disruption; 2. Impact on other financial institutions, financial markets and payment system infrastructures, taking into account (a) the impact and speed at which a disruption of the function would affect market participants or market functioning such as liquidity, operations and structure of other financial institutions, financial market and payment system infrastructure.
Substitutability of services received or functions offered	1. Availability of substitute providers, taking into account: – (a) number of available substitute providers; (b) presence of alternative products or markets that conduct activities that are broadly equivalent to the function; (c) Number of customers that rely on the bank or financial institution as the only or principal banking service provider; and (d) Ease of customers to move to substitute providers, time required, process involved, and costs to be incurred by customers. 2. Necessary requirements to assume the functions, including: - (a) capacity of and expected time needed for substitute provider to assume all or a large share of activities or customers; (b) organizational arrangements, infrastructure, expertise, regulatory approvals required; (c) willingness of substitute providers to take on all or a large share of activities or customers, taking into consideration attractiveness of the function, e.g. economies of scale, margins, complements overall business; (d) importance of brand, market positioning or reputation; (e) costs for substitute provider(s) to assume all or a large share of activities and customers; (f) Interoperability between providers of the function, presence of common standards, procedures and interfaces; and (g) significance and form of any other barriers to substitutability.

Interconnectedness	Interactions with other functions of the financial institution or of the market, including the relevance of the market for this function to the functioning of other markets as well as the role in influencing the availability of other functions or products which are tied with the function.

Appendix 6: Market-wide and Institutional Stress events

Market-wide stress events	Institutional stress events
(a) macroeconomic downturn (b) adverse price movements in market(s) to which the financial institution is heavily exposed (c) decrease in aggregate liquidity available in domestic or foreign interbank markets (d) heightened sovereign risk and portfolio outflows from a key jurisdiction of operations (e) failure of significant counterparties impacting the financial system (f) regional/global catastrophes	(a) severe credit losses in specific portfolios (b) increased default risk in specific portfolios and rating downgrade (c) significant liquidity outflow, including deposit run (d) increased costs of, or impaired access to significant funding sources (e) failure of related entities, e.g. parent bank, branches or subsidiaries (f) failure of, or early redemption of liabilities by, significant counterparties (g) severe operational losses (e.g. losses through a rogue trader) (h) damage to reputation (e.g. fraud, loss of goodwill)

Appendix 7. List of Recovery Indicators

Category	Recovery indicator
Capital	Ascertain actual and potential material deterioration in the quantity and quality of capital of the financial institution on a going concern basis, including via increasing leverage and/orrisk exposures (a) Common equity tier 1 capital ratio (b) Tier 1 capital ratio (c) Total capital ratio (d) Leverage ratio
Liquidity	Identify actual or potential funding and liquidity risks, including those stemming from intra-group funding needs and off- balance sheet exposures, that may hamper the ability to meetshort- and long-term obligations (a) Liquidity coverage ratio (b) Net stable funding ratio (c) Cost of funds (d) Cost of wholesale funding (e) Concentration of funding (e.g. from top 20 counterparties)
Profitability	Capture actual and potential deterioration in revenue generating capacity and rapid increase in costs, includingoperating expenses and losses incurred from legal and operational risk events (a) Return on assets (b) Return on equity (c) Net interest margin (d) Cost-to-income ratio (e) Operational risk loss
Asset quality	Indicate profile of, and potential changes in, credit risk exposures, including movements in the staging of loan and financing exposures under accounting standards and impairments, and adequacy of provisions made, including for off-balance sheet exposures (e.g. assets sold with recourse) (a) Gross impaired loans/financing ratio (b) Growth rate of gross impaired loans/financing (c) Net impaired loans/financing ratio (d) Loan/financing loss coverage ratio
Operational risk	Capture disruptions to operational services that may materiallyimpair the long-term viability of the financial institution, and threaten public confidence in the financial institution or operations of the financial market. This includes indicators thatmay not immediately affect the financial performance of the financial institution.