FINANCIAL ANALYSIS

1. The financial analysis considers (i) the financial position of Small Farmers Development Bank (SFDB) and 20 sample small farmers agriculture cooperatives (SFACs) that are satisfactory except for liquidity, (ii) SFDB's projections and, (iii) SFDB's scenario analyses based on worst-case scenarios.[1]

A. Capital, Asset Quality, Earnings, Liquidation, and Sensitivity to Market Risk Analysis of Small Farmers Development Bank[2]

2. **Capital.** SFDB has adequate capital that is within the mandated limits. Its 10.38% capital adequacy ratio is higher than Nepal Rastra Bank's required capital adequacy ratio of 8% for microfinance institutions. Furthermore, SFDB's tier 1 capital-to-risk-weighted assets ratio is at a healthy 8.94%, well above the required 4.00%. Thus, SFDB remains well capitalized to absorb potential shocks. Its capital increased from fiscal year (FY) 2015 to FY2018 because of periodic capital injections from promoter shareholders and higher retained earnings because of increasing net income.[3]

3. **Asset quality.** SFDB's asset quality is improving despite its growing loan portfolio. Even with a robust loan compound annual growth rate of 33.06%, nonperforming loans (NPLs) comprised just 0.04% of its gross loan portfolio in FY2018 (ended 15 July 2018), down from 0.11% in FY2014 (Table 1). Furthermore, as of FY2018, SFDB loan loss provisions comprise 597.12% of NPLs, indicating adequate provisioning standards.[4]

Table 1: Capital Adequacy and Asset Quality of Small Farmers Development Bank Fiscal Year 2014–Fiscal Year 2018

(%)

Ratio	FY2014	FY2015	FY2016	FY2017	FY2018
Capital adequacy ratio	11.53	9.75	10.07	10.15	10.38
Tier 1 capital ratio	10.58	8.52	8.74	8.76	8.94
Nonperforming loan ratio	0.11	0.17	0.007	0.10	0.04

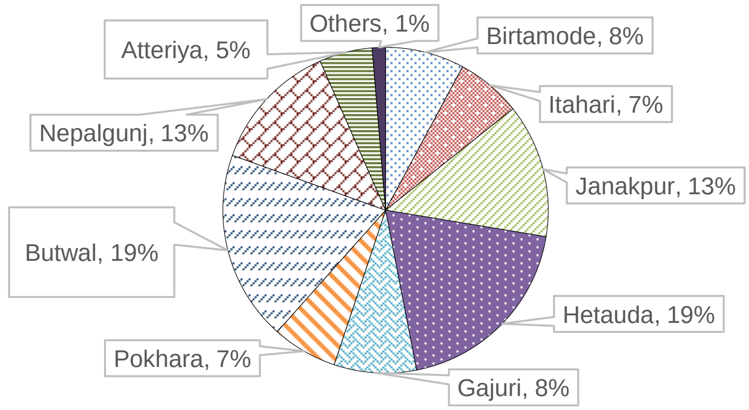
FY = fiscal year.
Note: The FY of Small Farmers Development Bank ends on 15 July. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2019 ends on 15 July 2019.
Source: Small Farmers Development Bank.

4. Because of its mandate, SFDB's portfolio has a concentrated exposure to agriculture. Exposure to the agriculture sector poses risk brought by weather shocks, as shown by the effect of droughts and floods. Geographic diversification and single-borrower limits mitigate this risk in the following ways: (i) the loan portfolio is geographically diversified, with the highest concentration, 19.34%, of gross loans in the Hetauda region, followed by 18.87% in the Butwal region (figure); and (ii) SFDB can provide credit up to NRs700,000 with no collateral for a borrower or group, depending on its performance. During FY2018, SFDB's single largest borrower

1 Sana Kisan Bikas Laghubitta Bittiyasanstha Ltd or commonly called SFDB.
2 The capital, asset quality, earnings, liquidation, and sensitivity to market risk analysis is a deviation from the common industry framework, which also includes management analysis. The management component of the analysis was omitted because these issues are substantially addressed in the Financial Management Assessment (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).
3 The promoter shareholders include Agriculture Development Bank Ltd., Nepal Bank Ltd., Nabil Bank Ltd., and SFACs.
4 SFDB follows the provisioning standards as per the directive issued to microfinance institutions by Nepal Rastra Bank: 1% for one month in arrears, 5% for three months in arrears, 25% for six months in arrears, 50% for 12 months in arrears and 100% for over 12 months in arrears.

constituted 1.30% of total outstanding loans, while the top 20 borrowers comprised 18.88% of the gross loan portfolio.

Exposure of Small Farmers Development Bank by Area, Fiscal Year 2018



Note: The FY of Small Farmers Development Bank ends on 15 July. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2019 ends on 15 July 2019.
Source: Small Farmers Development Bank.

5. **Earnings.** Earnings are sustainable despite slim net interest margins. Return on equity and return on assets show consistent improvement during FY2015 to FY2018 because of growing net income (Table 2). However, SFDB's focus on growing agriculture financing in new regions has resulted in lower net interest margin in FY2018. SFDB originates many small loans over a wide geographic distribution (figure). Furthermore, SFDB operates 1 corporate office, has 9 branches with 99 staff, and has 680 member SFACs, which drives up its operational costs. Thus, cost-to-income increased from 14.37% in FY2016 to 13.39% in FY2017 and to 12.76% in FY2018.[5] Also, reliance on short-term financing, which incurs higher interest rates, may drag SFDB's growth.

Table 2: Earnings of Small Farmers Development Bank
Fiscal Year 2014–Fiscal Year 2018
(%)

Ratio	FY2014	FY2015	FY2016	FY2017	FY2018
Net interest margin	4.42	4.90	4.70	4.69	4.42
Cost of borrowing	4.64	2.99	2.89	3.88	5.73
Return on equity	14.63	16.80	19.50	22.74	21.97
Return on assets	2.75	2.72	2.95	3.53	3.21

FY = fiscal year.
Note: The FY of Small Farmers Development Bank ends on 15 July. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2019 ends on 15 July 2019.
Source: Small Farmers Development Bank.

6. **Liquidity.** SFDB's liquidity is acceptable but needs strengthening. There is a mismatch in the maturity profile of liabilities because liquid assets comprise 16.96% of short-term liabilities. This indicates heavy reliance on short-term borrowing from financial institutions, which puts

[5] Cost-to-income is computed by dividing operating expenses (general and administrative, personnel, depreciation, and other operating expenses) by the sum of net interest, net fee and commission, and other nonoperating income.

pressure on the cost of funds of SFDB. 89% of funding is from the government and deprived sector borrowings from financial institutions.[6] Access to multiple sources may help SFDB with an alternate source of finance to manage the cost of funds.

7. **Sensitivity to risks.** SFDB's interest rate risk is appropriately managed but could be strengthened. SFDB is primarily exposed to interest rate risk. With the increased cost of borrowing, SFDB must effectively pass on the higher cost of funding to its customers or diversify its funding sources (Table 2).

8. **Conclusion.** SFDB's financial performance is satisfactory, except for liquidity. Access to long-term funding will allow SFDB to lessen its reliance on short-term funding and effectively manage its increasing cost of borrowing.

B. Capital, Asset Quality, Earnings, Liquidation, and Sensitivity to Market Risk Analysis of Small Farmers Agriculture Cooperatives

9. SFDB selected a sample of 20 SFACs, whose financial performance is acceptable because of SFDB's selection criteria (tables 3 and 4).[7] To assess the FY2018 performance, the analysis used a financial performance monitoring system that measures six key areas of credit union operations: protection, effective financial structure, asset quality, rates of return and cost, liquidity, and signs of growth.[8]

Table 3: General Selection Criteria of Small Farmers Agriculture Cooperatives

Registered as a cooperative.
At least 2 years of experience in providing savings and credit services after registration.
No cumulative loss in the balance sheet and earned profit during the fiscal year when assessment was conducted.
Potentiality to increase outreach and business.
Have developed a 3-year business plan.
Proper record keeping in a double-entry bookkeeping system.
Regularity in general assembly and board meetings.
No delinquent loans with the board of directors, staff and their family members in the cooperative, and other financial institutions.

Source: Small Farmers Development Bank.

Table 4: Selection Criteria of Small Farmers Agriculture Cooperatives Based on Financial Indicators

	Year of SFDB Membership		
Indicator	**First Year**	**Second Year**	**Third Year**
Number of members	250	300	400
Percentage of female members (%)	>40	>50	>60
Internally generated fund (NRs million)	2	3	4
Internally generated funds to outstanding loan (%)	>30	>35	>40
Capital adequacy (capital fund to risk-weighted assets)			
Primary capital (%)	2	4	5
Total capital (%)	5	8	10
Operational self-sufficiency (%)	>100	>105	>110

[6] The government's deprived sector lending scheme requires banks to lend at least 5% of the total portfolio to poor, low-income, and marginalized populations.

[7] The sample SFACs are Rampur Dang SFAC, Letang SFAC, Semalar SFAC, Salang SFAC, Dhaibung SFAC, Jiling SFAC, Kathar SFAC, Makwanpur Gadhi SFAC, Kumroj SFAC, Ithara SFAC, Padariya SFAC, Raghunathpur SFAC, Odraha SFAC, Samalbung SFAC, Pathariya SFAC, Shriantu SFAC, Lok Besi SFAC, Lati Koili SFAC, Tulsibhangyang SFAC, Tara Tal SFAC.

[8] This financial performance monitoring system was developed by the World Council of Savings and Credit Cooperatives.

Indicator	Year of SFDB Membership		
	First Year	Second Year	Third Year
Repayment rate (%)	>80	>90	>90
Return on equity (%)	>1	>2	>3
Operating expenses ratio (%)	<5	<4	<4
Net worth	Positive	Positive	Positive

SFDB = Small Farmers Development Bank.
Source: SFDB.

10. **Capital.** The SFACs' capital adequacy is acceptable because SFDB's selection criteria consider core and secondary capital, and positive net worth. In monitoring, there is no minimum mandatory capital requirement for agriculture cooperatives, but cooperatives can mobilize deposits up to 15 times of shareholders' funds. The SFACs have combined shareholders' funds of NRs566.78 million. Each SFAC has shareholders' fund ranging from NRs4.21 million to NRs72.68 million. Female membership comprises 78.97% (30,166 female members) of total membership, and female borrowers comprise 79.13% of the 17,150 total borrowers. The SFACs' combined total outstanding loans amount to NRs3,171.34 million and total assets amount to NRs3,749.69 million.

11. **Asset quality.** Capital adequacy is acceptable because potential SFACs do not have delinquent loans and have a required repayment rate. All of the SFACs have met the minimum asset quality requirements of 5% except one, Letang SFAC, which has an NPL ratio of 6.36%. However, Letang SFAC maintains adequate reserves, with solvency of 120.91% against the minimum requirement of 111%, and it reserves a 100% allowance for short-term losses (matching the minimum requirement of 100%). Among the SFACs, 14 have an NPL ratio below 1%. SFACs apply provisions to protect their loan portfolios and they allocate a 100% allowance for NPLs greater than 12 months past due, 35% for those less than 12 months past due, and 1% for good loans. All of the SFACs are sufficiently provisioned.

12. **Earnings.** The SFACs' earnings performance is good because SFDB's selection criteria requires (i) minimum operational self-sufficiency ratios, (ii) no cumulative loss in the balance sheet and earned profit during the FY when assessment was conducted, (iii) a minimum return on equity, and (iv) low operating expenses ratio. The SFACs' operating expense-to-average assets ratios range from 1.11% to 7.61%.

13. **Liquidity.** All of the SFACs with the exception of Semalar SFAC have met the minimum liquidity requirement, wherein liquid assets comprise 15% of savings deposits. The range among the SFACs is from 12.73% to 48.92%.

14. **Sensitivity to risk.** SFACs are susceptible to three risks: (i) credit risk, which is brought by the borrower's inability to repay their loans because of weather shocks such as drought and typhoons; (ii) operational risk, which is brought by inadequate data management and backup systems to effectively monitor SFACs' portfolios, and the limited knowledge of SFACs' credit staff on the technical aspects of rural enterprise financing; and (iii) interest rate risk, which occurs because of overreliance on short-term funding, which is sensitive to tightened monetary policies.

C. Financial Projections

15. **Base-case projections.** SFDB's financial projections during FY2019–FY2023 anticipate strong loan growth at an average annual rate of 20% (Table 5). The projections are aligned with historical records and include ADB's proposed loan. Without ADB's loan, the annual loan asset growth rate will drop to 7%.

Table 5: Small Farmers Development Bank Financial Projections Fiscal Year 2019–Fiscal Year 2023
($‘000)

Item	FY2019	FY2020	FY2021	FY2022	FY2023
Earning assets	196,350	234,355	279,862	334,367	399,666
Other assets	902	992	1,091	1,200	1,320
Total assets	197,251	235,347	280,953	335,567	400,986
Liabilities	174,986	207,855	247,192	294,284	350,677
Equity	22,265	27,492	33,761	41,283	50,309
Total liabilities and equity	197,251	235,347	280,953	335,567	400,986

FY = fiscal year.
Notes:
1.The key assumptions are (i) a 20% annual loan growth rate, (ii) no capital infusions or changes in paid-up capital, (iii) an 8.07% 3-year average interest income, and (iv) a 3.90% 3-year average cost of borrowing. These assumptions are aligned with Small Farmers Development Bank’s historical record during FY2016-FY2018.
2. The FY of Small Farmers Development Bank ends on 15 July. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2019 ends on 15 July 2019.
Source: Asian Development Bank.

D. Scenario Analysis

16. Sensitivity analyses were used to assess SFDB’s ability to withstand financial shocks. The first examined how much the net interest margin would have to decrease to result in losses. From its level of 4.42% as of the end of FY2018, SFDB’s net interest margin would have to drop to 2.11% before incurring a loss. The second analysis examined how much SFDB’s NPL will grow to breach the tier 1 capital requirement of 4%. The analysis found that the NPL level must have a compound annual growth rate of 257.97% to breach capital requirements.