

FINANCIAL ANALYSIS FOR FENAKA

A. Historical Financial Performance

1. Till 2009, the electricity industry in the Maldives consisted of the State Electric Company Limited (STELCO) that serviced the Male and Greater Male region as well as a few large islands across the Maldives. Most of the other islands were serviced by island cooperatives that managed the electricity needs of the island. In 2009, 6 utility companies were formed for the outer islands that consolidated operations geographically and started providing services to the islands historically serviced by cooperatives. In 2012 - FENAKA, a single utility for the outer islands, was created by the aggregation of the 6 regional power utilities to strengthen management capacity, improve governance and bring in economies of scale. The change to a single electricity utility for the outer islands is a significant transition from the early 2000s. A tri-party memorandum of agreement between Government of Maldives represented by the Ministry of Finance and Treasury, FENAKA and individual utilities was signed in January 2013 with FENAKA, a vertically integrated utility, entrusted with the functions of electricity generation, transmission, distribution and also water, sewerage and waste management service in the outer islands.

2. The audited accounts of FENAKA for 2012 contain certain important qualifications relating to fixed assets, inventory and non-availability of past records. The absence of past data is attributed in part to non-standard maintenance of assets and operational records on the islands that were taken over from the smaller utilities and the island cooperatives. To address the auditors' observations progressively, a valuation of fixed assets and reconciliation of fixed assets, spares and inventory will be undertaken.

3. FENAKA's financial performance has been characterized by net losses and cash deficit. Power systems on the outer islands have been operating inefficiently in part due to poor design as well as delays for investment, maintenance and replacement of assets - a problem when the electricity was being provided by the island cooperatives. While retail tariffs have not increased since 2009, the government has provided a pass-through for diesel cost increases through a fuel surcharge payable by consumers and a fuel surcharge subsidy payable by the government on behalf of domestic and small businesses. A usage subsidy is also being provided to certain consumer categories (domestic and small business) and paid for by the government. On an average the revenue per unit including usage and fuel surcharge subsidy for the outer island ranges between Rf 6.75 to Rf 7.80. Around 47 % of the total revenue for FENAKA is contributed from Subsidies (Usage subsidy 15% and Fuel surcharge subsidy 32% of the total revenue) with the rest from consumers. The total revenue for FENAKA consolidated has grown almost 2.5 times from 2010 to 2012 as it has increased its coverage on the outer islands. The margin for the past years has been negative in the range of 1% to 4% mainly due to high usage of diesel which is around 75%-80% of the total cost. The FENAKA balance sheet seems highly leveraged from 2011. Once the asset registers are prepared and verification undertaken, a cleaning up of the FENAKA balance sheet is expected to be undertaken. Suitable covenants for tariff setting to reflect cost and financial restructuring of FENAKA have been agreed with the government. Table 1 represents the FENAKA's financial performance over these three years.

Table 1: FENAKA's Operational and Financial Performance – Unaudited and consolidated from the 6 utilities

Item ¹	Unit	2010	2011	2012	2013
Income Statement					
Sale of power	MVR Million	356.73	799.70	828.12	1020.78
Total	MVR Million	378.68	806.22	828.15	1041.12
Expenses					
Direct cost of sales	MVR Million	286.16	181.26	688.61	794.92
Profit/(Loss) after Tax	MVR Million	(4.45)	(8.28)	(32.46)	8.68
Balance Sheet					
Net fixed assets	MVR Million	281.21	527.11	526.63	566.66
Total Assets	MVR Million	434.22	1234.94	1483.72	1,441.01
Equity & reserves	MVR Million	195.74	184.75	152.29	160.97
Long-term loans ²	MVR Million	147.57	771.39	770.73	719.35
Total Equity + Liabilities	MVR Million	434.22	1234.94	1483.72	1,441.01
Return on net fixed assets	%	Negative	Negative	Negative	1.53%
Direct cost % of total cost	%	75%	76%	80%	77.11%
Current ratio (CA/CL)	Times	1.68	2.54	1.71	1.56
Return on equity	%	Negative	Negative	Negative	5.39%
Leverage % (D/(D+E))	%	43%	81%	84%	81.71%

B. Financial Projections

4. Financial projections have been developed for FY2014–FY2023. The capital investment plan for the diesel generator set replacement and solar photovoltaic has been considered in the FENAKA projection based on one of the investment phasing plans prepared for the project. The demand growth has been taken based on the type of island. For large islands, initial growth is expected at 10% with growth subsequently at 5%. This is lower for medium sized islands at 5% and for smaller islands at 2%. The price of fuel is expected to increase annually at 1.39% based on World Energy Outlook forecasts. As efficient diesel generating sets and renewable energy installations happen resulting in efficient fuel usage, fuel expenditure will reduce. Fuel surcharge and fuel surcharge subsidy are calculated on a base tariff of 8.5 MVR / liter with fuel costs above this included in the fuel surcharge for business special and government category and fuel surcharge subsidy for business and domestic categories payable by the government. The local inflation index has been taken at 4.5%. The weighted average interest rate for the loan on lent to FENAKA has been considered at 2%. The impact of financial restructuring and tariff adjustments that has been agreed with the government to be undertaken after completion of audits and verification studies is not factored in. Table 2 presents the projections of financial performance for FENAKA.

¹ Un audited and consolidated based on clients informations

² The loans represent the payables to Island councils for the transfers which happened in 2009. The exact numbers will be finalized after the audit is completed in 2014.

Table 2: Projections of Financial Performance

Item	Unit	2014	2015	2016	2017	2018
Income statement						
Sale of power	MVR million	1067.15	1142.48	1205.00	1286.15	1355.25
Total Income	MVR million	1087.69	1163.23	1225.96	1307.31	1376.63
Expenses						
Fuel	MVR million	822.04	876.08	880.14	914.13	934.37
Staff	MVR million	135.23	141.31	147.67	154.32	161.26
Solar O&M	MVR million	0.00	0.00	6.72	12.46	19.92
PAT	MVR million	16.72	14.08	26.73	29.99	42.50
Balance Sheet						
Net fixed assets	MVR Million	565.32	1060.94	1474.39	1966.90	1969.81
Total Assets	MVR Million	1402.62	1880.72	2284.47	2801.51	2844.29
Equity & reserves	MVR Million	177.69	298.10	417.83	561.29	616.72
Long Term Loans	MVR Million	667.97	1017.37	1316.52	1692.82	1690.22
Total Equity + Liabilities	MVR Million	1402.62	1880.72	2284.47	2801.51	2844.29
Return on net fixed assets	%	2.96%	1.33%	1.81%	1.52%	2.16%
Fuel cost % of total cost	%	76.97%	76.40%	73.68%	71.86%	70.43%
Current ratio (CA/CL)	Times	1.50	1.45	1.47	1.52	1.63
Return on equity	%	9.41%	4.72%	6.40%	5.34%	6.89%
Leverage % (D/(D+E))	%	78.99%	77.34%	75.91%	75.10%	73.27%
DSCR	Times	1.03	1.32	2.21	2.53	2.88

Source: Asian Development Bank staff estimates.

FINANCIAL ANALYSIS FOR STELCO

C. Historical Financial Performance

5. STELCO is the other generating company supplies to the Greater Male region covering about 28 islands. STELCO operates as a vertically integrated utility, and is entrusted for electricity generation, Transmission & Distribution. STELCO, incorporated under the Companies Act 10/96 rule is owned by the Government of Maldives and has a stronger financial position as it was profitable till 2012 with better efficiencies. However given the fuel price rise that is not fully compensated through the surcharge, STELCO is also facing problems with recovering its costs. The accounts are unqualified expect for FY 2012 where there is a minor qualification because of noncompliance of IAS 16 due to certain assets not being revalued.

6. STELCO's financial performance is characterized by profits and cash surplus. However during FY 2013, unaudited accounts of STELCO indicate a negative profit due to rising interest

costs and fuel price variations. While it is anticipated that the prices of fuel will increase at the 1.39% annually (World Energy Outlook forecasts), it is expected that programs such as POISED and other donor supported programs in Male would help to reduce burden on fuel expenditure and subsidy requirement from the GoM. The fixed asset turnover went down in 2012 due to addition of fixed assets and revaluation of assets. . The return on equity reduced in 2012 and 2013 on account of lower gross profit margins, higher financing costs and lower other income. Table 3 represents the STELCO's operational and financial performance over these three years:

Table 3: STELCO's Financial Performance

Item	Unit	2011 Audited and Restated ³	2012 Audited	2013 Un Audited
Income Statement				
Sale of power	MVR Million	1243.58	1488.98	1609.93
Expenses				
Direct cost of sales	MVR Million	1091.31	1344.12	1230.55
Total	MVR Million	1200.04	1473.97	1624.08
PAT	MVR Million	53.94	7.76	(17.36)
Balance Sheet				
Net fixed assets	MVR Million	973.32	1639.73	1583.85
Total Assets	MVR Million	1299.7	2177.25	2234.7
Equity & reserves	MVR Million	708.08	721.08	714.23
Long-term loans	MVR Million	190.83	785.99	767.15
Total Equity + Liabilities	MVR Million	1299.7	2177.25	2234.7
Return on net fixed assets	%	5.54%	0.47%	Negative
Direct cost % of total cost	%	91%	91%	76%
Current ratio (CA/CL)	Times	0.81	0.80	0.86
Return on equity	%	7.62%	1.08%	Negative
Leverage % (D/(D+E))	%	21%	52%	52%

D. Financial Projections

7. Financial projections have been developed for FY2014–FY2023. One of the phasing plans for capital investments for DG set replacement and solar PV was considered for STELCO's projection. A 5% growth rate has been considered for STELCO. Fuel surcharge, fuel surcharge subsidy is calculated assuming a base tariff of 8.5 MVR / liter and fuel cost increases above this are considered a fuel surcharge for business special and government category and fuel surcharge subsidy for business and domestic category which is pass through in the tariff. The local inflation for cost index has been taken at 4.5%. The impact of any financial restructuring and tariff adjustments that has been agreed with the government to be undertaken after completion of required studies is not factored in. The weighted average interest rate for the loan on lent to STELCO has been considered at 2%.

8. Table 4 presents the projected financial performance of STELCO.

³ Due to revaluation of assets and rectification entries provided for errors, FY 2011 accounts was restated

Table 4: Projections of Financial Performance

Item	Unit	2014	2015	2016	2017	2018
Income statement						
Sale of power	MVR million	1657.12	1861.53	1880.14	2117.66	2369.91
Expenses						
Fuel	MVR million	1265.02	1386.61	1309.37	1448.00	1590.21
Staff	MVR million	104.16	108.85	113.75	118.87	124.22
Solar O&M	MVR million	0.00	0.00	5.49	5.59	6.55
PAT	MVR million	50.19	72.53	145.70	220.56	307.01
Balance Sheet						
Net fixed assets	MVR Million	1459.67	2286.80	2148.07	2054.54	1893.05
Total Assets	MVR Million	2271.02	3425.54	3474.00	3759.52	4055.72
Equity & reserves	MVR Million	764.42	1044.73	1195.29	1430.43	1737.43
Long Term Loans	MVR Million	729.24	1413.07	1383.22	1396.07	1357.35
Total Equity + Liabilities	MVR Million	2271.02	3425.54	3474.00	3759.52	4055.72
Return on net fixed assets	%	3.44%	3.17%	6.78%	10.74%	16.22%
Fuel cost % of total cost	%	77.82%	76.87%	75.40%	76.76%	78.06%
Current ratio (CA/CL)	Times	1.04	1.18	1.48	1.83	2.25
Leverage % (D/(D+E))	%	48.82%	57.49%	53.64%	49.39%	43.86%
DSCR	Times	0.96	1.74	3.32	4.25	5.20

Source: Asian Development Bank staff estimates.

DEBT SUSTAINABILITY ASSESSMENT

A. Background

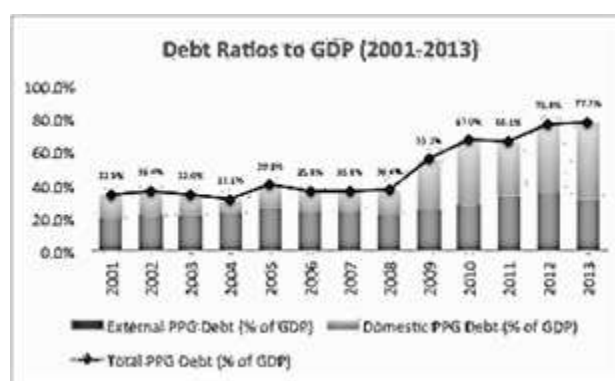
1. The Government of Maldives has embarked on a major transformation program to convert the existing inefficient diesel-based energy supply systems in islands to renewable energy (RE) and efficient diesel hybrid systems. The conversion will reduce import dependence on diesel, which currently exposes the economy to supply, cost and currency risks. The fiscal impact is also substantial since the Government supports the sector with subsidies on diesel and on user charges and is a significant off-taker of electricity. It is expected that the newly installed hybrid systems will be scaled to meet demand over STELCO and FENAKA islands and result in efficient cost of installations.

2. The development of the hybrid systems would involve substantial upfront investment costs, most of which will be funded through debt. Most of this requirement is likely to be met through external borrowings. Investments of large magnitude, when funded through foreign currency denominated loans, usually impact the economy due to increase in stock of debt and debt servicing obligations in foreign exchange; increase in GDP in the short run due to capital expenditure and in the long run due to expected returns from the investment; foreign exchange inflows during construction phase and reduced foreign exchange outflows during operations; and depending on the nature of the project, lower fiscal subsidy burden and reduction in operational expenditure.

3. The Maldives has embarked on a transition to introduce renewable energy in the grid and this report analyses whether the beneficial effects of the project outweigh the increase in financial stress on account of higher debt servicing obligations. If the positive impact resulting from these investments is higher than increased financial stress, such investments are termed 'sustainable'. However this assessment will have to be in the context of overall debt situation for the economy likely to unfold in the future. The fundamental principle in debt sustainability analysis remains that of 'stationarity'- a stable or decreasing indicator of fiscal stress in relation to paying capacity in the long run would imply debt sustainability. Debt Sustainability Analysis (DSA) is of relevance to all key stakeholders viz. Government, investors and lenders who need to assess the risks involved.

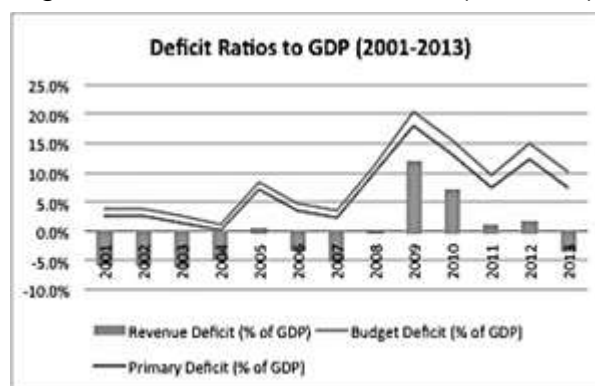
4. Current Debt Situation. Debt to Gross Domestic Product (GDP) ratio is one of the indicators for assessing the quantum of debt. As seen from Figure 1, the ratio was around 35 percent till 2004 in Maldives. The first major spike in debt ratio was seen in the year 2005 after the tsunami. Fortunately, the ratio soon stabilized and maintained an almost steady value till 2008. However, there has been a steep and steady rise in the ratio since 2009, which is a cause of worry. As on 31st Dec 2013, the total outstanding Public and Publicly Guaranteed (PPG) debt of Government of Maldives was estimated at 24,942 Million MVR or 77.7 percent of GDP. The ratio has more than doubled since 2008 when it was 36.4 percent. Of the total PPG debt outstanding on 31st Dec 2013, 11,561 Million MVR (or 30.3 percent of GDP) was external PPG debt.

Figure 1: Debt Ratios to GDP



5. The increase in debt since 2008 has been contributed largely by domestic debt. Current balance was in surplus till the year 2008 (except for a minor deficit in the year 2005). However, it has consistently been in deficit after 2008 (Figure 2). This implies that part of current expenditure requirement is being met through loans. In order to meet the higher borrowing requirement, the Government has taken recourse to borrowing from Maldives Monetary Authority (MMA), implying monetization; and to T-Bills that are being continuously rolled over. The rise in current deficit and consequent rise in short term debt and monetization has introduced additional vulnerability.

Figure 2: Deficit Ratios to GDP (Per cent)



6. The economy is dependent on tourism sector, which contributed about 27.7 percent of GDP in 2012, having increased from 26.3 percent of GDP in 2008. This dependence renders the country vulnerable to unfavourable global and domestic factors. This risk was particularly evident in the years 2005, post tsunami; and in 2009, soon after the global financial crisis, when negative growth in tourism resulted in negative real GDP growth rate for the economy.

7. Overall, the services sector contributed more than 80 percent of GDP in 2012. Primary sector contributed less than 4 percent of the GDP. It is pertinent to note that both constituents of primary sector viz. agriculture and fisheries have declined in their share of GDP during this period. Both comprised 1.9 percent of GDP and 1.7 percent of GDP in 2008 and 2012 respectively.

8. On the external front, Current Account Deficit (CAD) has risen steeply to 11.4 percent of GDP in 2012 (revised estimates). In 2013, it is projected to reach more than thrice its value in 2010. The external reserves situation has been assuaged to some extent due to net inward direct investment and external loans. Still, the current level of reserves at 291.4 million USD is sufficient to cover only about 2 months of goods imports in 2013 (projected), having consistently declined from 3.5 months of goods imports in 2010. The declining trend is a cause of concern. An unfavourable trigger or default can put the currency under pressure.

9. In the year 2013, Government of Maldives has enacted the Fiscal Responsibility Legislation (FRL) that targets enhanced fiscal discipline through medium term deficit and debt targets. The FRL stipulates that the Government "...should try to maintain the Total National Debt including Government Guarantees at a level that does not exceed 60 percent of the Gross Domestic Product of the past year by the end of the 3 years starting 1 January 2014. Once this level has been achieved, the level at which Total National Debt is to be maintained for every 5 years, should be determined based on the Gross Domestic Product, and announced by the Minister" (Chapter 10, Article 32(b)).

10. The FRL also states that with effect from 1st January 2016, loans should be taken only for development projects and for improving productivity. Moreover, loans should not be taken to repay past loans (Chapter 10 Article 32(d)). In other words, the revenue balance shall be in sufficient surplus to meet the repayment obligations. The overall balance is targeted within 3.5 percent of GDP by 1 January 2017. If any of these targets are met, that would have direct favourable impact on sustainability of debt while allowing the economy enough margin to withstand macroeconomic vulnerabilities.

B. Methodology

11. Technical Justification and Selection Criteria. The debt sustainability analysis is in accordance with the debt sustainability framework of the International Monetary Fund (IMF) and International Development Association (IDA) for low-income countries. The methodology focuses on five key ratios: (i) present value (PV) of public and publicly guaranteed (PPG) external debt to GDP; (ii) PV of PPG external debt to exports, (iii) debt service to exports, (iv) PV of PPG external debt to revenue, and (v) debt service to revenue. In addition, the latest DSF update in 2013 also prescribes a benchmark for PV of total public sector debt as ratio of GDP.

12. In the present study, we have looked at the profile of debt more closely. Our methodology deviates slightly from IMF/IDA methodology in that the build-up of debt has been prepared based on aggregates rather than ratios. The former has the advantage of using consistent nominal values while the results are likely to be similar to IMF/DSA methodology. Debt projections have been built based on existing and pipeline debt information, as obtained from Commonwealth Secretariat Debt Recording and Management System (CSDRMS); and additional debt projections based on deficit projections. Debt and fiscal projections are linked. Assumptions for new borrowings have been given in Table 5.

Table 5: Assumptions for New Borrowings

	Proportion in new debt	Discount Rate	Interest Rate	Grace Period	Maturity
Assumptions for External Debt					
IDA	10%	5.0%	0.8%	10	40
Other Multilaterals	20%	5.0%	3.0%	5	15
Official Bilaterals	20%	5.0%	1.5%	3	19
All Commercial	5%	5.0%	10.0%	1	6
Assumptions for Domestic Debt					
Foreign Currency Denominated	7%	4%	4%	5	15
Bonds	23%	10%	10%	0	5
Treasury Bills	15%	10%	10%		< 1 year

13. Treatment of loans for POISED: The POISED project has been taken up separately for analysis, based on the composition of financing in Table 6 and one of the probable investments scenarios under the roadmap. ADB and ADB administered financing in the form of grants support the case for additional borrowings from EIB and IsDB for the POISED project helping cover a large part of the roadmap and enhancing the impact of the ADB supported intervention. Debt-servicing obligations; and PV computations for POISED loans have then been added to the overall debt projections. With- and –without baseline scenarios have been prepared for PV (external debt)/GDP ratio for demonstration. Other ratios are inclusive of POISED loans.

Table 6: Investment Plan for POISED

Source	In USD Million
ADB (and ADB administered) Grant	50.00
EIB Loan	50.00
ISDB Loan	10.00
Govt. of Maldives (GoM)	14.00

Table 7: Assumptions for Terms of Loans

	Grace Period (Years)	Interest Rate (%)	Term in Years (including grace period)	Discount Rate (%)
EIB Loan	3.00	3.31	18	5.00
ISDB Loan	7.00	2.00	25	5.00
GoM Loan	0.00	10.00	5	10.00

14. Under the debt sustainability framework, the magnitude of each ratio is compared with respective indicative thresholds defined for the ratio. The thresholds depend on the classification of the country as a strong, medium, or weak policy nation. An indicator, called Country Policy and Institutional Assessment (CPIA) is used for this categorization. With a three-year average CPIA rating of 3.32, Maldives has been categorized as a 'Medium Policy' nation. Applicable indicative thresholds for the prescribed ratios have been shown in Table 8.

Table 8: Indicative Thresholds for Debt Ratios in Maldives

Ratio	Indicative Threshold (percent)
PV (PPG External Debt)/Exports	135
PV (PPG External Debt)/GDP	36
PV (PPG External Debt)/Revenues	250
Debt Service/Exports	20
Debt Service/Revenue	20
Benchmark for PV of Total Public Debt/GDP	56

15. Stress Tests: Debt sustainability analysis is based on projections of the specified ratios over a period of 20 years. For this purpose, a baseline scenario is been prepared that represents the path of a country's debt that is deemed to be the most likely, derived from a series of assumptions and projections of key macroeconomic variables. The baseline scenario is then subjected to stress tests that fall in two major categories viz.

- (i) **Alternative Scenarios** that subject the underlying variables to permanent shocks over the entire projection period.
- (ii) **Bound Tests** that assess the impact of temporary shocks to the underlying variables.

16. **Assessment of Risk Rating:** The evolution of debt burden indicators in the baseline scenario and under stress tests is then assessed against the relevant thresholds in the external DSA, and the relevant benchmark in the public DSA, to determine the external risk rating and the overall risk of debt distress. The risk ratings are as follows:

- (i) **Low risk.** All debt indicators below their thresholds, including under stress tests.
- (ii) **Moderate risk:** Although the baseline scenario does not lead to breaches of thresholds, stress tests result in one or more breaches.
- (iii) **High risk:** The baseline scenario results in a breach of one or more thresholds, but the country does not currently face any payment difficulties.
- (iv) **In debt distress:** Current debt and debt service ratios are in significant or sustained breach of thresholds. Actual or impending debt restructuring negotiations, or the existence of arrears, would generally suggest that a country is in debt distress.

C. Analysis

17. External debt burden indicators remain below the indicative thresholds for all ratios under baseline scenarios. However, PV (external debt) to GDP ratio reaches close to its

threshold in the year 2017. Stress tests show that debt thresholds are breached for ratios of PV (External Debt) to GDP and Exports. This observation falls under the “Moderate Risk” rating.

18. The ratio of total public debt to GDP remains significantly above the benchmark of 56 percent for most of the projection period. Thus, while the risk to external debt distress may be moderate, there is considerable vulnerability on account of domestic debt. Domestic debt is rising rapidly and is a cause of concern. There are accumulated payment arrears, which have not been quantified as yet and therefore could not be included in the analysis. They suggest additional vulnerability.

19. Impact of POISED investment: The benefits from POISED are from:

a. Subsidy savings to the Government; and reduced debt service on the loans that would have otherwise been required to meet that subsidy.

b. Lower diesel imports- higher GDP (At the same time-higher investment (domestic) expenditure and higher imports for equipment have also been considered in the analysis)

c. Consequent beneficial impact on balance of payments (BoP) and currency situation

Figure 3: Government subsidy saving versus Government debt servicing for loans for investment

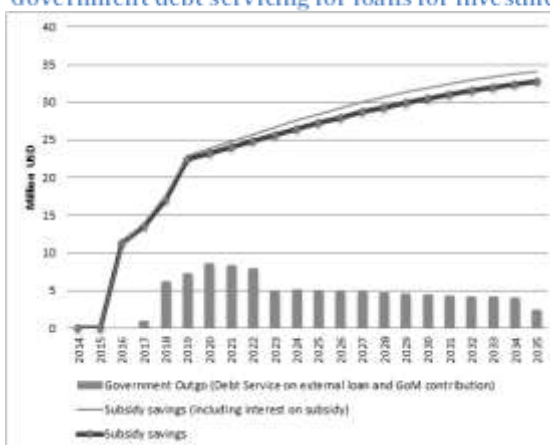


Figure 3 compares the cost impact of POISED on Government of Maldives with the corresponding estimated subsidy savings to the Government, based on the analysis for FENAKA and STELCO. The analysis shows that savings to the Government from POISED investment far outweigh the costs.

20. When the POISED project is considered, there is an initial marginal increase in debt ratios but they decline much faster than without-POISED scenario in later years. POISED is expected to beneficially impact the macro-economic and fiscal situation in the medium term.

D. Conclusion

21. While the analysis of external debt burden indicators shows “Moderate Risk” from external debt, there are significant vulnerabilities on account of domestic debt. Taking the total PPG debt into consideration, the risk of debt distress can be classified as “High Risk”.

22. POISED project has significant beneficial impacts on import substitution, GDP and subsidy savings to the Government. Debt ratios are below the scenario without -POISED investment and they also decline faster than the without-POISED case. Thus, the benefits from POISED far outweigh its cost and the project has a beneficial impact on debt sustainability. Projects such as POISED would support the Government of Maldives transition from “High Risk” to “Moderate Risk” category.