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R2018-0265/1

December 18, 2018

<p>Closing Date: Wednesday, January 16, 2019 at 6:00 p.m.</p>
--

FROM: Vice President and Corporate Secretary

India

**Shimla Water Supply and Sewerage Service Delivery Reform
Programmatic Development Policy Loan 1**

Program Document

Attached is the Program Document regarding a proposed loan to India for a Shimla Water Supply and Sewerage Service Delivery Reform Programmatic Development Policy Loan 1 (R2018-0265), which is being processed on an absence-of-objection basis.

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The World Bank

Shimla Water Supply and Sewerage Service Delivery Reform Programmatic Development Policy Loan 1

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Report No: PGD28

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM DOCUMENT FOR A

PROPOSED LOAN

IN THE AMOUNT OF US\$40 MILLION TO

THE REPUBLIC OF INDIA

FOR A

Shimla Water Supply and Sewerage Service Delivery Reform
Programmatic Development Policy Loan 1
(P167246)

December 18, 2018

Water Global Practice
South Asia Region

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India: Republic of India

GOVERNMENT FISCAL YEAR: April 1 – March 31

CURRENCY EQUIVALENTS

Exchange Rate Effective as of October 31, 2018

Currency Unit: INR 73 = US\$1

ABBREVIATIONS AND ACRONYMS

AMRUT	Atal Mission for Rejuvenation and Urban Transformation	IMF	International Monetary Fund
BPL	Below Poverty Line	IPH	Irrigation and Public Health
CAAA	Controller of Aids, Accounts and Audit	LDP	Letter of Development Policy
CAG	Comptroller and Auditor General	LPCD	Liter Per Capita Per Day
CEO	Chief Executive Officer	MD	Managing Director
CPF	Country Partnership Framework	M&E	Monitoring and Evaluation
CPHEEO	Central Public Health Engineering Environmental Organization	MIC	Middle Income Country
CVC	Central Vigilance Commission	MLD	Million Liters Daily
DBO	Design Build Operate	MOF	Ministry of Finance
DPL	Development Policy Loan	MoU	Memorandum of Understanding
FDI	Foreign Direct Investment	MTEF	Medium Term Expenditure Framework
FRBM	Fiscal Responsibility and Budget Management	NGO	Non- Governmental Organization
FDG	Focus Group Discussion	NPA	Non-Performing Assets
FHH	Female Headed Households	O&M	Operations and Maintenance
FY	Fiscal Year	PER	Public Expenditure Review
GDP	Gross Domestic Product	PDO	Project Development Objective
GNP	Gross National Product	PFM	Public Financial Management Systems
GoHP	Government of Himachal Pradesh	PPP	Public Private Partnership
GOI	Government of India	PSIA	Poverty and Social Impact Analysis
GDP	Gross Domestic Product	RO	Reverse Osmosis
GOI	Government of India	SBD	Standard Bidding Document
GRS	Grievance Redress Service	SCD	Systematic Country Diagnostics
GSDP	Gross State Domestic Product	SDR	Special Drawing Rights
GSWSSC	Greater Shimla Water Supply and Sewerage Circle	SEBI	Securities and Exchange Board of India
GST	Goods and Services Tax	SCM	Smart Cities Mission
HP	Himachal Pradesh	SMC	Shimla Municipal Corporation
HR	Human Resources	SME	Small and Medium Enterprise
IBRD	International Bank for Reconstruction and Development	SJPNL	Shimla Jal Prabandhan Nigam Limited
IDA	International Development Association	STP	Sewage Treatment Plant
IDI	In-depth Interviews	TMG	Technical Monitoring Group
ICAI	Institute of Chartered Accountants of India	UDD	Urban Development Department
ICSI	Institute of Company Secretaries of India	ULB	Urban Local Body
IFC	International Finance Corporation	WBG	World Bank Group
		WSS	Water Supply and Sewerage

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REPUBLIC OF INDIA

FIRST PROGRAMMATIC WATER SUPPLY AND SEWERAGE SERVICE DELIVERY REFORM DEVELOPMENT POLICY LOAN

FOR SHIMLA, HIMACHAL PRADESH

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**SUMMARY OF PROPOSED FINANCING AND PROGRAM****BASIC INFORMATION**

Project ID	Programmatic	If programmatic, position in series
P167246	Yes	1st in a series of 3

Proposed Development Objective(s)

The PDO is to support the Government of Himachal Pradesh in its policy and institutional development program for improving water supply and sewerage services that are financially sustainable and managed by an accountable institution responsive to its customers.

Organizations

Borrower: REPUBLIC OF INDIA

Implementing Agency: URBAN DEVELOPMENT DEPARTMENT, GOVERNMENT OF HIMACHAL PRADESH

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Financing	40.00
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DETAILS

International Bank for Reconstruction and Development (IBRD)	40.00
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INSTITUTIONAL DATA**Change and Disaster Screening**

This operation has been screened for short and long-term climate change and disaster risks

Overall Risk Rating

High



Results

Indicator Name	Baseline		Target	
	Value	Date	Value	Date
1. Number of ULBs as customers of the SJPNL	1	09/30/2018	3	12/31/2024
2. Percentage of decisions on investment, expenditure and staff recruitment referred to GoHP for approval	100%	09/30/2018	0%	12/31/2024
3. Annual audited financial statements of SJPNL publicly disclosed	No consolidated financial statement	09/30/2018	Financial statements disclosed within six months of end of each FY	September 30 of each year
4. Adherence to HR Policy for hiring MD cum CEO with a fixed tenure of at least two years	None (0%)	09/30/2018	100% adherence	12/31/2024
5. Percentage of SJPNL staff receiving performance incentives based on employee performance evaluation	None (0%)	09/30/2018	At least 50%	12/31/2024
6. Females as percentage of total staff in various services of SJPNL	Nil	09/30/2018	At least 30%	12/31/2024
7. Percentage of corrective actions taken by SJPNL based on recommendations of corporate governance review	Not applicable	09/30/2018	90%	12/31/2024
8. Improved performance of SJPNL as measured by the annual performance scorecard rating	Not applicable	09/30/2018	Performance scorecard rating of at least 3 on a scale of 5	12/31/2024
9. Timely determination of annual tariffs and subsidies	No Policy	09/30/2018	Annual tariffs and subsidies determined and applied by April 1 each year	12/31/2024
10. Volumetric billing of 24x7 customers	Nil	09/30/2018	90% of 24x7 customers	12/31/2024
11. Collection efficiency	70%	09/30/2018	90%	12/31/2024
12. O&M cost recovery (bulk water & distribution)	21%	09/30/2018	At least 40%	12/31/2024
13. O&M cost recovery (water distribution)	100%	09/30/2018	At least 150%	12/31/2024
14. O&M cost recovery (sewage)	30%	09/30/2018	At least 100%	12/31/2024
15. Percentage of customers of the WSS Company serviced by private service provider(s) receiving continuous water supply and connected to sewage systems	Nil	09/30/2018	At least 70%	12/31/2024
16. Energy consumption of water production from existing sources	7.69 kWh/m3	09/30/2018	Less than 6.15 kWh/m3	12/31/2024
17. Reduction in Non-Revenue water	50%	09/30/2018	30% or less	12/31/2024
18. Annual reports on SJPNL performance, customer satisfaction, and citizen report cards published and disclosed	No reports	09/30/2018	September 30, each year	12/31/2024
19. Percentage of WSS complaints redressed within the specified redressal period	Not available	09/30/2018	80%	12/31/2024



IBRD PROGRAM DOCUMENT FOR A PROPOSED LOAN TO REPUBLIC OF INDIA

1. INTRODUCTION AND COUNTRY CONTEXT

1. ***The proposed operation supports the Government of Himachal Pradesh's (GoHP) Medium-term Program¹ for improving water supply and sewerage services.*** The GoHP has commenced transformational policy and institutional shifts to address the challenges of rapidly increasing water demand, a series of jaundice epidemics, and an ongoing supply crisis due to the declining capacity of traditional sources. The proposed programmatic operation of US\$ 40 million, the first in a series of three Development Policy Loans (DPLs), will support this policy reform program to improve water supply and sewerage (WSS) services over the medium term (2018-24), starting with the Greater Shimla Area². The reform program departs from a past when policy making, regulation, asset ownership and service delivery were directly integrated in state and departmental structures, and responsibilities highly fragmented with no single agency accountable for WSS, contributing to poor service outcomes.

2. ***India continues to be the world's fastest growing major economy.*** The economy has recovered from disruptions caused by demonetization and the introduction of the GST in 2017. While growth dipped to 6.7 percent in FY17/18, it has accelerated in the last two quarters to reach 8.2 percent in Q1 FY18/2019. This was supported by a revival in industrial activity, strong private consumption, and a rise in exports of goods and services. At the same time, the external situation has become less favorable. The current account balance has deteriorated. A worsening trade deficit has led the current account deficit to widen (on the back of strong import demand, and higher oil prices) from a benign 0.7 percent of GDP in FY16/17 to 1.9 percent in FY17/18. Meanwhile, external headwinds - monetary policy 'normalization' in the US coupled with recent stress in some Emerging Market Economies- have triggered portfolio outflows from April 2018 onwards, putting additional pressure on the balance of payments. As a result, the nominal exchange rate has depreciated by about 14 percent from January to September 2018, and foreign reserves have declined by over 5 percent since March (though remaining comfortable at about 9 months of imports). Going forward, growth is projected to reach 7.3 percent in FY18/19 and to firm up thereafter at around 7.5 percent, primarily on account of robust private and public consumption expenditure, a rise in exports of goods and services and a gradual increase in investments. However, the current account deficit is also projected to remain elevated in FY18/19.

3. ***Since the 2000s, India has made remarkable progress in reducing absolute poverty.*** Between FY2011/12 and 2015, poverty declined from 21.6 to an estimated 13.4 percent at the international poverty line (2011 PPP US\$ 1.90 per person per day), continuing the earlier trend of robust reduction in poverty. Aided by robust economic growth, more than 90 million people escaped extreme poverty and improved their living standards during this period. Despite this success, poverty remains widespread in India. In 2015, with the latest estimates, 176 million Indians were living in extreme poverty while 659 million, or half the population, were below the higher poverty line commonly used for lower middle-income countries (2011 PPP US\$ 3.20 per person per day). Recent trends in the construction sector and rural wages, a major source of employment for the poorer households, suggest that the pace of poverty eradication may have moderated.

4. ***Rapid urbanization is increasing pressure on WSS services across India.*** Urbanization is projected to increase from 31% as per 2011 census to 50% over the next 20 years. While there has been a substantial increase in coverage through WSS facilities, the service performance has been inadequate. Hardly any

¹ GoHP's Medium-term Program (2018-24) is a comprehensive supporting document on the performance standards and the policy and institutional programs for improving WSS services in the Greater Shimla Area.

² Greater Shimla comprises Shimla Municipal Corporation and three areas under Special Area Development Authority (Kufri, Shoghi, Ghanahati).



Indian city receives piped water 24 hours a day. Non-Revenue Water due to leakages, unauthorized connections, and other inefficiencies, is estimated at 40-70% of the water distributed and the operations and maintenance (O&M) cost recovery is only 30-40% on average. While 81% of the urban population has access to adequate sanitation, very few cities have sewage networks. WSS roles and responsibilities are typically unclear and overlapping. While Urban Local Bodies (ULBs) are responsible for the WSS services as per the Constitution Act 1992 (74th Amendment), infrastructure is often developed by State Agencies and handed over to the ULBs who may not have the financial and technical capacity to manage assets. This results in poor performance due to lack of clear lines of accountability. The Government of India (GOI) recognizes that to improve urban WSS services, the sector institutions need to be customer-focused, efficient and accountable. The GoI has initiated major programs in response to urbanization challenges and recently launched three high-level missions in June 2015: Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart Cities Mission (SCM), and Housing for All.

5. ***Himachal Pradesh exemplifies many of the challenges that India's rapid growth and urbanization are posing for the urban WSS sector.*** In line with national trends, the state of Himachal Pradesh has experienced rapid economic growth, a decline in poverty and fast urbanization (see Section 2 for details). The population of greater Shimla, the capital of Himachal Pradesh, is expected to nearly double to 0.41 million by 2050. In addition, the city receives an average of 3.6 million tourists per year. This has put heavy strain on the historical WSS infrastructure which retains a capacity of only 40 million liters daily (MLD) as opposed to a current demand of already 56 MLD. Water supply is provided only once in two days for limited hours, sewer connections serve merely 60-70 percent of the population with partial and shared connections. The cost of services is high since local sources are inadequate and bulk water needs to be pumped 1,400 meters up from the source to meet the growing requirements. As elsewhere in India, poor service performance has been aggravated by a lack of accountability and low operational efficiency. Non-Revenue Water is estimated at 50%. O&M cost recovery is only 21%, requiring an annual O&M subsidy of over US\$12 million. Infrastructure shortfalls are thus aggravated by poor financial sustainability as well as weak customer orientation

6. ***In response, the GoHP has initiated a comprehensive, transformational program to improve WSS services for the Greater Shimla Area, which the proposed operation will reinforce.*** Though not immune to entrenched interests and flux in public opinion, Himachal Pradesh is particularly well suited to lead the way on WSS reform in India. The state benefits from high education levels, a tight-knit social structure³, a traditionally strong compact of accountability between the state and the people⁴ and cross-party agreement on the need for WSS improvements. In commencing reforms, the first step of the GoHP has been the separation of policy making and regulatory functions from asset ownership and service delivery. Simultaneously, the GoHP has been addressing the fragmentation in service delivery responsibilities between various agencies. In 2016, the GoHP established the Greater Shimla Water Supply and Sewerage Circle (GSWSSC) as a 'ring-fenced' department within the SMC, with the responsibility for WSS. In June 2018, the GoHP and SMC have incorporated the Shimla Jal Prabandhan Nigam Limited (SJPNL) as a ring-fenced and autonomous WSS Company with devolved responsibilities and managerial and financial autonomy. The proposed operation would support the GoHP's WSS program, focusing on increasing efficiency and governance of WSS operations, improving services, entrenching managerial and financial autonomy, raising accountability and building the capacities of SMC and SJPNL.

7. ***The reform program will consolidate a ring-fenced, autonomous WSS Company with devolved***

³ Himachal's religion and caste structure are significantly more homogenous than in other Indian states

⁴ World Bank, *Scaling the Heights: Social Inclusion & Social Development in Himachal Pradesh*, Washington DC, 2015



responsibilities to improve operational- and financial performance and accountability to customers. This involves separating policy making and regulatory functions from asset ownership and service delivery. The program will consolidate the latter two within a single company that has been established. Complementary reforms targeted under the program will support a shift from traditional infrastructure financing to a service delivery orientation. This will include performance-based service delivery to improve water and sewer services, as well as complementary reforms to increase cost recovery through better tariff-, subsidy- and energy-efficiency policies. Simultaneously, the GoHP will build the capacity of the Shimla Municipal Corporation (SMC) and the WSS company to take on their new roles and responsibilities. The reforms being advanced in Himachal Pradesh are unprecedented in scope and ambition in India's WSS sector. Experience from around the world shows that public sector reform is not a linear process, but advances in response to opportunities and can be interspersed with set-backs. The proposed programmatic DPL will help overcome institutional inertia, serve as buffer against bumps on the road to reform and tilt stakeholder incentives further towards ambitious, progressive change.

8. **The DPL supported reform process will also mitigate climate change related challenges for WSS services in Himachal Pradesh.** The Greater Shimla Area is exposed to several climate and geophysical hazards which can affect supply and demand for water supply and sewerage services. This operation will address these climate vulnerabilities by increasing the water utility's capacity for adaptive WSS management (see paragraph 100).

9. **Although supporting a reform process that is already well advanced, the proposed operation faces substantial risks inherent to ambitious public-sector reform.** The institutional shift from a department of GoHP to an autonomous ring-fenced WSS Company under the SMC, with predictable subsidies, performance evaluation and service orientation, is a significant reform. There is a risk of resistance due to the wide-ranging changes in powers, roles and responsibilities, as well as due to the technical and political complexity of the program. Such risks are partially mitigated since the prior actions arise from the GoHP's own reform agenda, because the recent water crisis has broadened support for an ambitious program and due to GoHP's successful communication programs informing stakeholders about existing challenges and opportunities to improve WSS services efficiently and sustainably.

2. MACROECONOMIC POLICY FRAMEWORK

2.1. RECENT ECONOMIC DEVELOPMENTS

10. **India's growth remains robust.** The economy registered growth of 7.1 percent in FY16/17, and 6.7 percent in FY17/18. After the disruptions caused by demonetization and the implementation of GST, real growth is projected to accelerate to 7.3 percent in FY18/19. In Q1 of FY18/19 year-over-year growth reached 8.2 percent. This was underpinned, on the demand side, by robust private consumption with some recovery in investment, and on the supply side, by a vibrant services sector and a revival in industry. Growth in manufacturing and construction - the sectors most affected by GST and demonetization - has recovered in recent quarters.

11. **Inflation has remained within policy targets.** Since the adoption of inflation-targeting by the central bank in FY 16/17, inflation remained within a 4 (+/-) 2 percent range. While inflationary pressures prompted the RBI to raise policy rates twice by a cumulative 50 basis points since April 2018, low food prices have driven a decline in inflation since July 2018.

12. **Credit growth has picked up, but credit to industry remains subdued, burdened by the prevalence of non-performing assets (NPA) in the banking sector.** There has been a pick-up in credit growth, but mostly driven by personal and services loans. Public sector banks continue to record negative



profitability ratios. The government has introduced measures to address the prevalence of NPAs in the banking sector, including a novel insolvency and bankruptcy code in 2017, as well as the announcement of a INR 2.1 trillion bank recapitalization program over the next two years. Meanwhile, the financial difficulties of the *Infrastructure Leasing and Financial Services*, a large infrastructure development and financing company, have resulted in depressed growth prospects for non-banking finance companies.

13. *India's external position is robust although the current account deficit has widened recently.*

The current account and merchandise trade deficit widened to 1.9 and 6.1 percent of GDP in FY17/18 on the back of strong import growth. Exports remained sluggish, constrained by temporary working capital bottlenecks after GST implementation and structural competitiveness weaknesses. However stable foreign direct investment (FDI) and strong portfolio capital inflows in FY17/18 allowed for a build-up in reserves to an all-time high of over \$424 billion in March 2018. Since then pressures have increased, on the current account side with increases in oil prices, and on the capital account side with significant capital outflows triggered by interest rate hikes in the US and overall tighter international liquidity conditions. For FY18/19, the current account deficit is expected to widen further to 2.6 percent of GDP, and the overall balance of payments to turn negative.

14. *Public finances remain stable, but the pace of consolidation has moderated.* The central government's fiscal deficit reached 3.5 percent of GDP in FY17/18, 0.3 percentage points short of the budgeted target. This slippage was due to additional outlays required to compensate the states for GST revenue shortfalls. At the state level, however, some consolidation is believed to have taken place with the fiscal deficit falling by 0.4 percentage points to 3.1 percent in FY17/18. In turn, the general government deficit reached 6.6 percent, still elevated but far from the recent peak of 9.7 percent of GDP in FY09/10. Electoral pressures notwithstanding, fiscal consolidation is expected to resume at both levels of government in FY18/19.

STATE OF HIMACHAL PRADESH CONTEXT

State Context

15. *Himachal Pradesh's economy is diversified, and the state has registered robust growth.* The Gross State Domestic Product (GSDP) has grown by approximately 7.5 percent on average between 2012 and 2016. The structure of the state's economy has changed in the last twenty years, with the share of agriculture in gross value added falling from around 25 percent in 2001 to 13 percent in 2017, and the shares of industry and services increasing from 37 and 39 percent to 45 and 42 percent respectively. Hydropower is Himachal Pradesh's key industry, as the state is home to 25 percent of India's hydropower potential (27,436 MW), of which, only 10,519 MW had been exploited as of 2016. Tourism is the main contributor to the service sector, with more than 18 million tourists visiting Himachal Pradesh in 2016.

Recent fiscal developments

16. *Himachal Pradesh's extensive reliance on transfers has resulted in relatively weak fiscal discipline.* Transfers, including the proceeds from shared taxes and grants from the central government, amounted to over 60 percent of total state revenues in recent year, thus depressing incentives to improve fiscal discipline via higher own-revenue generation efforts and spending restraint. The state stands out in terms of both (low) own-revenues and (high) committed expenditures relative to per capita GSDP. Although Himachal Pradesh adopted a Fiscal Responsibility and Budget Management (FRBM) Act in 2005, the state has breached its FRBM fiscal target of 3 percent of GSDP in all but two years since 2008-09. Between FY07/08 and FY16/17, the fiscal deficit increased from 1.5 percent of GSDP to 4.5 percent of GSDP. This deterioration was driven by (i) salary increases in the civil service in FY10/11 in line with recommendations of the 6th pay commission; (ii) the bailout of state-owned electricity distribution



companies, and (iii) gradual salary increases during FY17/18 in anticipation of the 7th pay commission.

17. **Total revenues have remained largely stable.** Himachal Pradesh has enjoyed the status of a “Special Category State” and has received concessional resources and grants from the center. Funds received from the central government have risen from 9.3 percent of GSDP in FY13/14 to 13.6 percent in FY17/18 (approximately 66 percent of state revenue). Own tax revenues have been stable over the last five years, averaging 5.6 percent of GSDP, with revenue generation accruing primarily through state excise duties (4.7 percent of total revenue). By contrast, non-tax revenues declined over the last decade as revenues from the hydropower sector dwindled. Despite some consolidation in recent years, total expenditures remain elevated. During the last decade, expenditures ranged from 20.8 percent of GSDP in FY13/14 to 26.1 percent in F17/18. Current expenditures, which account for more than 80 percent of the total on average, have increased since FY13/14 from 18.3 percent of GSDP to about 23 percent in FY17/18. The largest share of current expenditure accrues to salaries, wages, pensions and interest payments. Capital spending stood at 3.6 percent of GSDP in FY17/18, below the national average.

Figure 1: HP Fiscal Indicators (% of GSDP)

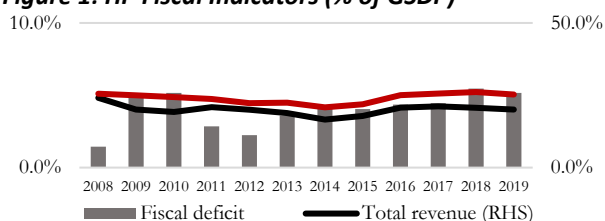
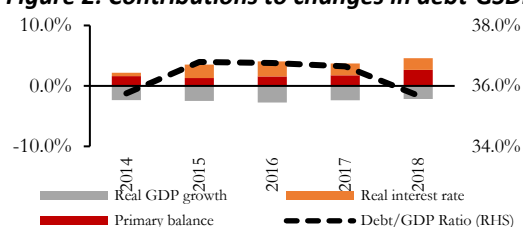


Figure 2: Contributions to changes in debt-GSDP



18. **Nonetheless, public debt as a percent of GSDP has been gradually declining.** It did so rapidly in the early part of the last decade, due to high GSDP growth and a decline in borrowing costs. Public debt/GSDP declined from 51.2 percent in FY07/08 to 35.5 percent in FY12/13; since then it has remained relatively stable and stood at 35.7 percent at the end of 2017-18: well above the target of 25 percent of GSDP prescribed by the state’s FRBM, but also well within sustainability margins.

2.2 MACROECONOMIC OUTLOOK AND DEBT SUSTAINABILITY

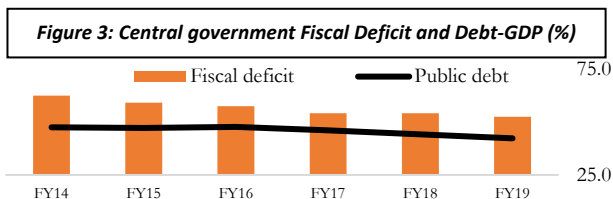
National outlook

19. **Economic growth is projected to gradually accelerate in coming years.** After disruptions caused by demonetization and adjustment to the implementation of GST, the economy is poised to resume gradual acceleration. Private consumption is expected to remain the primary driver of growth, while investment should pick-up moderately, and export growth resume. On the supply side, services will remain the primary driver of growth, with increasing contributions from industry. Agricultural output is projected to remain strong and revert to its long-term average growth of 2.8 percent. *Inflation and external conditions are expected to worsen temporarily.* Inflation is projected to remain above the mid-point target of 4 percent, rising to 5 percent in FY18/19 but declining steadily thereafter. The current account deficit is projected to widen to 2.6 percent of GDP in FY18/19 but to decline as the global trade environment stabilizes, exchange rate adjustments trigger supply responses, and investment inflows stabilize. *The combined fiscal deficit of the center and states is expected to decline in coming years.* The general government deficit is projected to decline to 5.9 percent of GDP by FY19/20 from 6.6 percent in FY17/18, due to fiscal prudence exercised by the central government which is expected to reduce its fiscal deficit to 3.3 percent by FY18/19. In the medium-term, the introduction of the GST is expected to improve tax compliance, foster greater formalization of the economy and support inter-state trade. On average, states are expected to adhere to the deficit limits established in the FRBM Act. Fiscal consolidation and



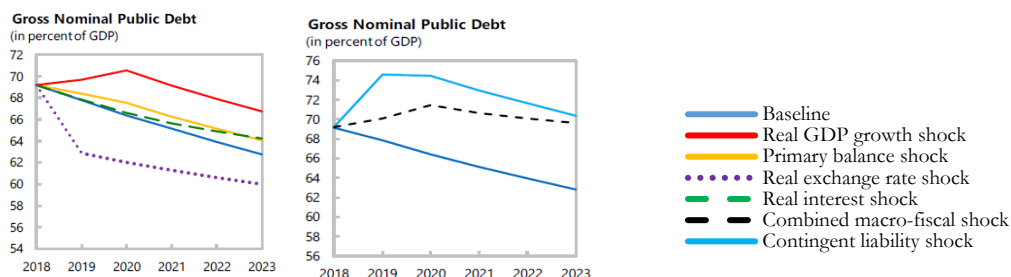
robust economic growth are likely to drive a continued decline in the General Government debt.

20. **According to the latest Debt Sustainability Analysis (DSA), India's debt remains sustainable as it is denominated in domestic currency, of long/medium-term maturity, and predominantly held by residents.** Under the baseline assumption of planned fiscal consolidation and an acceleration in nominal GDP growth, the general government debt to GDP ratio is expected to steadily decline. Given that a captive market for debt caps the interest cost, the sustainability of debt is mostly contingent upon shocks to real GDP growth and fiscal slippages. India's external debt, at around 20 percent of GDP, and predominantly of long duration, remains sustainable.



21. **Stress tests show that the most significant risk to India's debt sustainability is low growth, even though the risk remains contained.** The stress test corresponding to a growth shock yields a deteriorating debt path with debt-to-GDP reaching a peak of 71 percent of GDP. The combined macro-fiscal shock yields slightly worse outcomes though the debt path would return to a downward trajectory.

Figure 4: Sustainability of India's Public Debt: Baseline and Stress-test Scenarios



22. **India's macroeconomic policy framework is considered adequate for the First Programmatic WSS Service Delivery Reform DPL Loan for Shimla Himachal Pradesh.** India's economic growth is robust, and the disruptions caused by demonetization and the introduction of the GST appear to have been overcome. Structural reforms, including initial efforts to address financial sector weaknesses are also expected to pay off over time. In recent years, monetary policy has been improved and fiscal discipline strengthened; the deficit of the central government has been reduced for four consecutive years, and states have been kept to their mandated deficit targets. Debt and deficit levels are relatively high, but ample domestic funding is available.; refinancing risks are also moderate. India's exposure to external volatility has increased in recent years but the country is in a much better position than earlier to withstand external shocks, given high reserve levels and limited external financing needs.

State Government Outlook

23. **Himachal Pradesh's fiscal position is expected to improve modestly over FY18/19-FY19-20.** Marginal improvements are expected on the back of expenditure consolidation, outweighing modest revenue reductions. Revenues, as a share of GSDP, are projected to decrease marginally, with lower allocations of revenue deficit grants from the central government only partly outweighed by an increase in tax share receipts from the center⁵. However, a more than proportional consolidation of expenditures

⁵ Due to higher expected revenue at the center and the inclusion of forest cover in the devolution formula disproportionately benefiting GoHP



is expected to reduce the fiscal deficit from 5.5 percent of GSDP in FY17/18 to 4.9 percent in FY19/20.

24. However, state finances will be impacted by pay revisions entailing significant temporary deviations from FRBM targets.

A modestly declining share of own-tax revenue to GSDP, coupled with some moderation in grants implies that revenue receipts will decline over the coming years from 20.7 percent in FY17/18 to 17.8 percent in FY21/22. Under a baseline scenario, with capital expenditure stagnating at about 3 percent of GSDP by FY21/22, and non-committed expenditure declining from 7.8 percent of GSDP in FY17/18 to below 7 percent by FY21/22, total expenditure is expected to decrease from 26.1 to 24 percent of GSDP from FY17/18 to FY21/22. However, the decline will not be linear with pay hikes (a growth of above 30 percent in salaries) expected to be introduced around FY20/21 that will temporarily reverse the decline in current expenditures. As a result, the revenue deficit is expected to climb up to 3.6 percent in FY20/21 before declining to 3.3 percent in FY21/22, while the overall fiscal deficit is projected to peak at 6.5 percent of GSDP, in FY20/21, before resuming on a declining path (Table 3 and Annex 7).

25. Himachal Pradesh's debt trajectory is expected to stabilize by FY21/22.

The debt to GSDP ratio is expected decline from 35.7 percent in FY17/18 to 32.3

Table 1: India Selected Economic Indicators, FY14-FY20

Key Macroeconomic Indicators	FY14 Act.	FY15 Act.	FY16 Act.	FY17 Act.	FY18 Est.	FY19 Est.	FY20 Est.
Real Economy	(Annual percentage change unless otherwise indicated)						
Nominal GDP (local currency)	13.0	11.0	10.4	10.8	10.0	11.9	12.8
Real GDP	6.4	7.4	8.2	7.1	6.7	7.3	7.5
Per Capita GDP (in US\$, Atlas Method)	1486.2	1609.7	1639.8	1751.9	1974.8	..	..
Contributions to growth (percentage points)							
Consumption	4.2	4.4	4.8	5.3	4.8	4.7	5.6
Investment	0.5	0.8	1.6	3.1	2.4	3.2	2.4
Net Exports	4.5	0.2	0.2	0.1	-1.5	-0.5	-0.4
Unemployment rate	3.4	3.5	3.5	3.5			
GDP deflator	6.2	3.3	2.1	3.5	3.1	4.3	4.9
CPI (average)	9.4	6.0	4.9	4.5	3.6	5.0	4.0
Fiscal Accounts (General Government)	(Percent of GDP)						
Revenues and grants	19.6	19.2	19.9	20.4	21.1	21.5	20.9
Expenditures and net lending	26.2	25.9	26.8	27.3	27.6	27.6	26.8.1
Overall balance	-6.7	-6.7	-6.9	-7.0	-6.6	-6.1	-5.9
Public Debt	68.5	67.8	70.0	69.5	68.8	67.2	66.1
Selected Monetary Accounts	(Annual percentage change unless otherwise indicated)						
Base money (MO or Reserve Money)	8.8	10.1	12.1	-1.3	..	..	..
Credit to non-government	14.8	11.1	9.7	7.9	..	..	..
Interest rate (Repo rate, period average)	7.6	7.9	7.0	6.4	6.1	6.3	6.3
Balance of Payments	(Percent of GDP, unless otherwise indicated)						
Current account balance	-1.7	-1.3	-1.0	-0.7	-1.9	-2.6	-2.4
Imports	28.4	26.6	22.4	21.5	22.5	22.9	20.8
Exports	24.5	23.3	20.0	19.5	19.4	19.1	17.1
Foreign direct investment (net)	1.1	1.5	1.7	1.6	1.2	1.4	1.6
Gross reserves (in US\$ billion, eop)	304.2	341.6	360.2	370.0	424.5	..	..
In months of next year's imports	6.6	8.2	8.7	..	..	..	..
External debt	23.9	23.9	23.4	20.0	20.5	..	..
Terms of trade (FY2000=100)	60.2	57.9	71.8	..	..	..	..
Exchange rate (INR per USD 1, average)	60.9	61.2	65.7	67.1	64.5	68.5	68.8
Other Memo Items							
Nominal GDP in USD (billions)	1843.5	2036.6	2095.2	2274.6	..	..	..
Nominal GDP in INR (trillions)	112.3	124.7	137.6	152.5	..	..	..

Table 2: India Selected Fiscal Indicators, FY14-FY19

Key Fiscal Indicators	FY14 Act.	FY15 Act.	FY16 Act.	FY17 Act.	FY18 Revised	FY19 Budget
Central Government	(Percent of GDP)					
Overall balance	-4.5	-4.1	-3.9	-3.5	-3.5	-3.3
Primary balance	-1.1	-0.9	-0.7	-0.4	-0.4	-0.3
Total Revenues (and grants)	12.1	11.8	12.6	13.2	13.2	13.5
Tax revenues	10.1	10.0	10.6	11.2	11.6	12.1
Taxes on goods and services	2.9	2.9	3.6	4.2	4.8	5.4
Taxes on income and profits	5.6	5.5	5.4	5.6	6.0	6.1
Taxes on international trade	1.5	1.5	1.5	1.5	0.8	0.6
Other taxes	0.1	0.1	0.0	0.0	0.0	0.0
Non-tax revenues	1.8	1.6	1.8	1.8	1.4	1.3
Recoveries of loans	0.1	0.1	0.2	0.1	0.1	0.1
Expenditures	16.8	16.1	16.7	17.0	17.3	17.2
Current expenditures	15.1	14.5	14.9	15.1	15.6	15.6
Interest payments	3.3	3.2	3.2	3.2	3.2	3.1
Others (salaries, supplies, etc.)	8.9	8.5	8.0	7.9	8.5	8.4
Tax Transfers to states	2.9	2.7	3.7	4.0	4.0	4.1
Capital expenditures	1.7	1.6	1.8	1.9	1.6	1.6
Central Government Financing	4.5	4.1	3.9	3.5	3.5	3.3
External (net)	0.1	0.0	0.0	0.0	0.0	0.0
Domestic (net)	4.4	4.1	3.9	3.5	3.6	3.3
States' Governments	(Percent of GDP)					
Overall balance	-2.2	-2.6	-3.6	-2.9	..	..
Revenues	12.2	12.8	14.2	14.8	..	..
Expenditures and Net Lending	14.4	15.4	17.8	17.7	..	..
Public Debt	(Percent of GDP)					
General Government	68.5	67.8	70.0	69.5	68.8	67.2



percent by FY21/22. The decline is expected to be driven primarily by stable GSDP growth despite a rising primary deficit. Under the baseline scenario interest payments are expected to absorb about 14 percent of state revenues in the long run, thus exceeding the FRBM target by 4 percentage points (Annex 7).

26. Himachal Pradesh's macroeconomic policy framework is also considered adequate. With healthy economic growth and increased devolution from the center, the debt/GSDP ratio is expected to fall over the medium term. The broadly positive medium-term outlook, however, is subject to several downside risks, and its realization is contingent on sustained economic growth, improvements in revenue collection, and continued efforts at fiscal consolidation.

Table 3: Himachal Pradesh: Selected Fiscal Indicators, FY14-FY20

Key Fiscal Indicators	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Revised	FY19 Projected	FY20 Projected
(Percent of GSDP)							
Overall balance (incl. UDAY)	-4.2	-4.0	-4.4	-4.5	-5.5	-5.2	-4.9
Primary balance	-1.6	-1.3	-1.6	-1.7	-2.7	-2.3	-2.3
Total Revenues	16.6	17.9	20.7	21.2	20.7	20.1	19.2
Devolution from the central government	9.3	9.5	13.1	14.1	13.6	13.3	12.6
Own tax revenues	5.4	5.7	5.9	5.7	5.4	5.4	5.4
VAT	2.7	2.2	0.0	0.0	2.0	0.9	..
Other taxes	2.7	3.5	5.9	5.7	3.5	4.6	..
Own non-tax revenues	1.9	2.0	1.6	1.4	1.6	1.3	1.2
Recoveries of loans and advances	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Expenditures	20.8	21.9	25.1	25.6	26.1	25.2	24.1
Current Expenditures	18.3	19.1	21.8	20.4	22.6	22.2	21.1
Committed	13.0	13.2	13.5	13.4	14.8	15.0	13.9
Salaries and wages	6.8	6.9	6.2	6.8	7.5	7.6	7.0
Interest	2.6	2.7	2.8	2.7	2.8	2.8	2.6
Pensions	3.0	2.8	3.4	3.3	3.6	3.9	3.6
Subsidies	0.5	0.8	1.2	0.6	0.8	0.7	0.7
Non-committed	5.4	5.8	8.3	7.0	7.8	7.1	7.2
Capital Expenditures	2.5	2.8	3.2	5.2	3.6	3.1	3.0
Government Liabilities							
Direct debt	35.8	36.8	36.8	36.6	35.7	35.0	34.0
Guarantees by the State government	4.6	4.1	3.3	3.7	3.3	3.0	2.7
HP Real GSDP Growth	7.1	7.5	8.1	6.9	6.3	7.5	7.2
Deficit Financing	4.2	4.0	4.4	4.5	5.5	5.2	4.4
Internal Debt	23.3	23.8	24.1	24.3	25.7	26.4	26.6
o/w State bonds (SDLs)	14.3	14.6	14.9	15.8			
Others	12.4	13.0	12.7	12.4			

Figure 5: HP Fiscal Indicators under baseline scenario

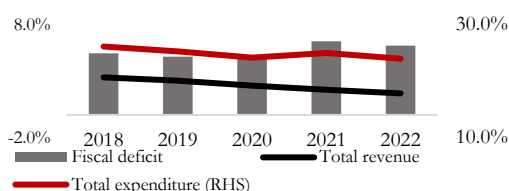
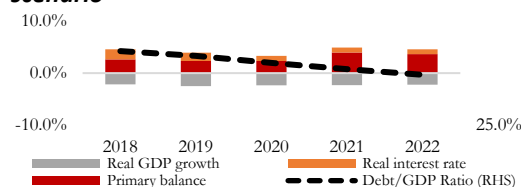


Figure 6: Debt and its decomposition under baseline scenario



Intergovernmental Relations

27. India follows a federal system of government at the Union with clear separation of taxation and spending powers. The Constitution has demarcated the taxation powers of both the levels of government, while the borrowing and foreign exchange entitlements are controlled by the Central Government. The fiscal relationship between the Union and the States is reflected in the devolution of a share of central taxes and additional assistance in the form of grants from the Union to the States as follows:

- **Tax devolution (share of central taxes to States)** recommended by the different Finance Commissions.⁶ The States decide how much of this central revenue would supplement the resources of local governments.
- **Plan grants (to States):**

⁶ The 14th Finance Commission recommendations were submitted to Parliament on February 2015 for a five-year period starting April 2015 and recommended a significant increase of states' share in the central tax pool from 32 to 42 percent and invoked greater horizontal equalization by compensating States with higher rates of in-migration, forest cover, and poor fiscal capacity (ability to raise its own revenues).



- Centrally sponsored schemes designed by the Center but implemented at the State level;
- Plan assistance in the form of block grants for State plans;
- Additional central assistance for special and other programs to States
- *Non-plan grants (to States and local governments):* Non-plan grants recommended by the Finance Commission.⁷

3. GOVERNMENT PROGRAM

28. ***Driven by deteriorating WSS services, a public health crisis and recognition of the negative impact of fragmented responsibilities, the GoHP has initiated sector reforms.*** The original design capacity of Greater Shimla's water supply system of 57 MLD has declined to merely 40 MLD today (less than 35 MLD during the dry season), far below the rapidly rising demand, currently estimated at 56MLD. Inadequate water supply is aggravated by significant gaps in access to safely managed sanitation excluding at least 30-40% of the population in the SMC area. A series of jaundice outbreaks in 2015, stemming from the contamination of the water supply, as well as the 2018 supply crisis that led to severe rationing measures, have spurred the GoHP into action, in particular after a specially appointed GoHP committee⁸ advised on the need to address institutional fragmentation, poor finances and weak customer orientation.

29. ***Since 2016, the GoHP has thus undertaken several immediate measures to address the WSS challenges, as well as developing a Medium-term Program.*** The GoHP's short term emergency measures included the formation of a Greater Shimla Water Supply and Sewerage Circle (GSWSSC) under the SMC, responsible for all WSS operations in the Greater Shimla Area in July 2016⁹. Critical repairs have been carried out in the bulk water system leading to an improvement in supply from 33 MLD to 40 MLD. GSWSSC also initiated the upgrading of bulk water supply and preparation of three demonstration zones for 24x7 supply. GSWSSC agreed a Water Operator Partnership with World Waternet (Netherlands) to design and implement best operating practices. A volumetric tariff proposal has been finalized and connections have been metered in Shimla city.

30. ***The Medium-term Program to be supported by this DPL builds on these achievements by consolidating, operationalizing and extending policy and institutional reforms to improve WSS services.*** The first stage of the Medium-term Program is focusing on institutional and policy reforms, that is, (i) Improving governance, managerial and financial autonomy; (ii) Increasing the efficiency of WSS operations; and (iii) Increasing customer orientation and accountability, with an initial focus on the Greater Shimla area. The GoHP has already commenced with the first stage of the Medium-term program: In June 2018, the GoHP and SMC have incorporated the Shimla Jal Prabandhan Nigam Limited (SJPNL) as a ring-fenced and autonomous WSS Company with formally devolved responsibilities and managerial and financial autonomy. The DPL supported measures will focus on consolidating the autonomous SJPNL, clarifying and implementing its governance framework and policies on performance-based service delivery program, cost-recovery, tariffs and subsidies, improving its energy efficiency and grievance redressal mechanisms, with special focus on poor and vulnerable groups, and achieving universal coverage with 24x7 supply.

31. ***In the second and third stages of the Medium-term Program, the GoHP would expand these principles to other areas of Himachal Pradesh and continue professionalization of the WSS Company and mainstream performance orientation and commercial financing.*** The programmatic, gradual

⁷ The distinction between plan and non-plan was abolished from FY18.

⁸ Committee under the Chairmanship of Additional Chief Secretary (Health) to GoHP vide Notification No. IPH-B(E)5-1/2016, dated 29.2.2016.

⁹ Government Order IPH-B(A)1-1/2016 dated July 12, 2016.



approach will help manage the risks inherent in public sector reform, including entrenched interests resisting autonomous decision making and performance-based operations. Throughout all stages, the Medium-term Program will have a strong focus on building the capacities of SMC and SJPNL, including through a partnership with a global publicly owned WSS utility to advise the Managing Director-cum-CEO of SJPNL.

4. PROPOSED OPERATION

4.1 LINK TO GOVERNMENT PROGRAM AND OPERATION DESCRIPTION

32. **Program Development Objective (PDO):** The PDO is to support the GoHP in its policy and institutional development program for improving water supply and sewerage services that are financially sustainable and managed by an accountable institution responsive to its customers.

33. **This DPL, the first of three, supports the implementation of the GoHP's Medium-term Program for improving WSS services, starting with the Greater Shimla Area.** This marks a departure from the traditional short-term crisis handling approach of the past in Himachal Pradesh's WSS sector. The application of the Medium-term Program for improving WSS services in the Greater Shimla Area will benefit 4.08 million people (domestic and tourists) with continuous, pressurized piped water supply and 4.01 million people (domestic and tourists) with improved sewage connections, and put the urban WSS of Himachal Pradesh on a solid institutional, financial and governance footing. The financing through the DPL will provide budgetary support to the GoHP for the WSS sector. The program supported by this DPL will build on the reform efforts already undertaken, reinforcing stakeholder incentives to pursue change and providing a buffer against possible setbacks.

34. **To achieve the PDO, the proposed operation supports three key pillars of the government program:** (i) Improving governance, managerial and financial autonomy; (ii) Increasing the efficiency of WSS operations; (iii) Increasing customer orientation and accountability, complemented by a cross-cutting capacity building effort. The key intervention areas supported under these pillars are presented below:

i. Improving Governance, Managerial and Financial Autonomy

35. **Shifting from departmental structure to an autonomous WSS Company with devolved responsibilities.** This operation supports GoHP's policies for corporatizing WSS operations and consolidating the WSS Company SJPNL by implementing policies for corporate governance, financial- and operational autonomy, and strengthening its organization structure, systems and capacity. The GoHP and SMC will retain policy making and regulatory functions in WSS sector while asset ownership and service delivery are consolidated under SJPNL, supporting separation of powers for accountability in services. SJPNL will be fully functional including appointing of Independent Directors, by December 31, 2018.

36. **Delegating full managerial and financial autonomy to the WSS Company.** During the initial reform steps, all financial and managerial powers of WSS have been delegated to the Board of Directors of SJPNL. The Board has further delegated these powers to the Managing Director-cum-CEO. This is a major break with the past when authority of WSS managers for planning, expenditures or staff transfers were severely limited and divided between various departments of SMC and GoHP. The key objective to be supported by the proposed operation is to enable SJPNL to efficiently wield its new powers to improve efficiency and WSS services. This requires not just the development, but practical implementation of SJPNL's new organizational structure, policies, planning capability and investments.

37. **Developing and implementing the organization structure, human resource policy, and capital**



investment plan. The Board of Directors of the new SJPNL includes representatives from GoHP and SMC as well as two independent directors and is chaired by the Chief Secretary of the GoHP. A Managing Director cum Chief Executive Officer of the company has been appointed. The Board has developed key company level policies and systems – a corporate governance framework, an Human Resource structure and policy approved by GoHP, an internal performance standard and an incentive system, as well as monitoring and evaluation and grievance redressal mechanisms. Officers of the rank of Assistant Engineers or equivalent, and above, deputed from GoHP, will have a fixed tenure of at least two years. With the support of the Bank operation, these policies and plans must now be detailed and successfully implemented, including key measures such as hiring through the open market while also seconding experienced staff from SMC, the IPH and other GoHP departments to SJPNL, increasing the number of female staff in key services of SJPNL, agreeing on remuneration and exact responsibilities, and undertaking key works. Key aspects of a modern utility governance are still to be developed. For example, SJPNL will develop a procurement manual taking into account procurement guidelines and orders issued by the GoHP and latest market methods, as well as associated Standard Bidding Documents (SBDs). The detailed organizational structure and service delivery arrangements are summarized in Annex 5.

38. The SJPNL has also developed a Capital Investment Plan to meet the service delivery targets of the Medium-term Program. This includes expansion in bulk water supply, sewage network and distribution system to achieve 24x7 supply. Since the WSS operations and SMC lack sufficient finances, the GoHP will provide capital grants to finance the investments. The proposed DPL will assist the SJPNL in realizing this investment plan.

39. **Supporting the Medium-term Plan activities aimed at improving financial autonomy.** Under the Bank supported program, a clear regulatory mechanism will be put in place to govern tariff setting and subsidies to improve cost recovery. At present only 21 percent of the O&M costs are recovered. Households and commercial establishments have been charged tariffs below O&M costs. Tariff revision has been ad hoc with no guidelines for tariff setting. As a result, the WSS operations depend on GoHP subsidies for O&M expenses and capital expenditures. So far, these subsidies have been provided without any link to performance and were also not predictable or timely. With support from the proposed program, the GoHP will implement a volumetric tariff structure and provide timely, predictable subsidies linked to performance. A new volumetric block tariff structure has begun to be introduced with an effectiveness date of April 1, 2018, and the first cycle of volumetric billing will be completed by January 31, 2019. This encourages equity, demand management and affordability for the poor. The monthly water bill for poor customers is being reduced by up to 50 percent as compared to the current flat tariff. The tariff is indexed automatically by 10 percent each year until FY 2024-25 and 8 percent thereafter. In case tariff needs to be increased beyond indexation, the Managing Director of SJPNL will prepare a tariff proposal based on cost recovery targets and subsidy requirements, with independent directors providing written opinions to the Board of Directors. The Board of Directors will determine the annual subsidy by applying the cost recovery and tariff policies of GoHP. SJPNL will seek the opinion of SMC on the recommendations of the Board of Directors and forward the Board's recommendations to GoHP. If GoHP approves a tariff less than recommended, it will provide additional subsidy to compensate for the revenue loss. The Board of Directors will also carry out annual performance evaluations, review of grievance redressal, and staff satisfaction surveys to inform tariff proposals.

40. **Improving the cost recovery targets based on financial projections.** By introducing volumetric tariffs alongside well-defined cost recovery- and subsidy policies, SJPNL aims to achieve 100 percent recovery of O&M costs for water distribution and sewage collection and treatment (excluding bulk water



costs) in the year FY 2021-22. Full O&M cost recovery (including bulk and energy costs) is expected to reach 66 percent by the year 2033-34.

ii. Increasing Efficiency of WSS Operations

41. ***Shifting focus from traditional infrastructure construction to performance-based financing and a service delivery orientation.*** Service delivery orientation has been lacking in Greater Shimla Area as the focus has been on planning for intermittent supply. Other service standards including continuous supply, water quality, grievance redressal have not been given adequate attention. With the support of the proposed DPL, the GoHP will improve service delivery orientation in the WSS sector for the Greater Shimla Area and assure continuous, pressurized water supply (24x7), sewage collection and treatment for all households. The GoHP's Medium Term Capital Investment plan includes both capacity addition and rehabilitation of existing STPs to reduce the risk of contaminated water supplies and overwhelmed water infrastructure in the wake of floods. This is expected to lead to climate change co-benefits since program and policies for rehabilitation of the STPs will lead to energy efficiency gains. Recognizing the lack of capacity within IPH and SMC to achieve the targets for service delivery, the operation will support GoHP in improving the service delivery orientation in the Greater Shimla Area through performance-based service delivery policy. The SJPNL will enter into performance-based service contracts for (i) bulk water supply by March 31, 2019 (subject to clearance, if required, from Election Commission of India), (ii) water distribution on 24x7 basis by June 15, 2019, and (iii) sewage collection and treatment, by June 15, 2019.

42. ***Incentivizing energy efficiency improvements in WSS operations.*** Cost recovery is highly sensitive to energy consumption and Non-Revenue Water. Based on a detailed study, the inefficiencies in energy consumption are estimated to be about 25 percent due to old equipment for Shimla city and non-revenue water. SJPNL has identified a package of electrical and hydraulic measure to improve energy efficiency, including (i) contract demand optimization, (ii) power factor improvement, (iii) avoidance of peak hour operation, (iv) energy efficiency pumps, (v) modification of suction line, and (vi) minimization of leakages. SJPNL will incentivize energy efficiency through performance-based policy for WSS services. Energy use per unit of bulk water from existing sources is expected to decrease by 20 percent by FY2023-24.

iii. Increasing Customer Orientation and Accountability

43. ***Increasing Customer orientation:*** The short-term improvements carried out by SJPNL have achieved water quality compliance and improved bulk water production. On-going activities will demonstrate better response to customer complaints, predictable supply schedule, and volumetric billing benefiting customers with low consumption. Continuous supply will be demonstrated in two pilot zones to be completed by September 30, 2019. SJPNL will also develop customer friendly connection and billing practices.

44. ***Increasing Accountability***

(a) Monitoring service performance: SJPNL has developed service standards and commitments for WSS services in Greater Shimla Area. SJPNL will develop utility systems and databases to collect information on WSS service performance. SJPNL will establish a robust Monitoring and Evaluation (M&E) framework using global WSS benchmarks and GoI's Service Level Benchmarks and will collect performance information disaggregated by customer groups to highlight service delivery status for the poor and vulnerable sections.

(b) Citizen Engagement and Grievance Redressal: SJPNL will carry out communication, grievance redressal, and customer feedback programs to improve citizen engagement. SJPNL would follow a protocol for regular reporting and disclosure of performance to all stakeholders, especially SMC



councilors, domestic and non-domestic customers, particularly the poor and vulnerable sections. SJPNL will implement a grievance redressal mechanism, social outreach, annual customer satisfaction surveys and citizen report cards. The program will have a communication strategy to engage with customers, including at least two public consultations each year on performance data and citizen feed-back.

Capacity Building

45. ***The Bank support program will reinforce the above measures with a cross-cutting capacity building program.*** SMC is legally responsible for WSS function under the municipal corporation Act and therefore has a role in WSS development. SMC will be provided with support in tracking the progress of the Medium-term Program as per the performance indicators. A seconded expert will i) analyse information provided by SJPNL on the progress of WSS Medium-term Program, ii) provide additional information on WSS program as required by SMC, iii) interface between SMC and SJPNL on matters related to progress of performance indicators under the WSS program.

46. ***The focus of capacity building in SJPNL will be on contract-, finance-, customer relationship- and asset management, along with long term WSS planning.*** In the past, departmental operations have focused on day-to-day technical functions and asset creation. To act more strategically and perform its new roles, SJPNL needs to build its capacity rapidly. The SJPNL will enter into a performance-based contract with a global good practice WSS Utility by February 15, 2019, which can provide experts, including engineers and sector experts, for helping SJPNL achieve its annual outputs. The global utility will also support SJPNL in developing as a professional, autonomous and accountable utility. At least 60% of the remuneration of the global WSS utility partner would be linked to annual performance scorecard rating to be achieved by SJPNL which includes service delivery indicators, efficiency indicators, progress in building utility systems and in implementing the capital investment plan.

Lessons Learnt from past WSS operations

47. ***Key lessons learnt from past WSS operations include the following:*** A professional, autonomous and accountable organization is required to sustain service delivery improvements achieved by capital investments. However, a corporate structure is not a sufficient condition for institutional autonomy - appropriate delegation of powers to and within the institution is required. Furthermore, establishing clear performance- and service standards is critical to improve service delivery. In India, experiences with implementing performance-based WSS contracts has been mixed. While many cities have taken up performance-based contracts, adequate attention has not been paid to associated reforms to ensure such contracts are embedded in a solid institutional and policy framework. Such reforms range from sector regulation (e.g. on tariff setting) to internal institutional policies (e.g. on HR), and may also include directly linking Government financing to performance. A further lesson has been that a volumetric tariff structure is necessary to improve cost recovery and incentivizing responsible consumption. With a fixed monthly tariff, demand management and price discrimination – including pro-poor lifeline tariffs for low income consumers – are not possible. Moreover, it has become clear that depoliticizing tariff and subsidy decisions is key for targeting improvements in financial sustainability. At the utility level, strengthening of staff capacity and introducing performance incentives are also important to introduce accountability and raise service levels. Water utilities have benefited from assistance of experienced private sector partners, in particular to improve service delivery at the customer end with modern technology and a client-centric approach. This is important, not least because sector reform in WSS runs the risk of claw-back if the capacity of the stakeholders and the WSS Utility are not built and stakeholders do not see improvements.



4.2 PRIOR ACTIONS, RESULTS AND ANALYTICAL UNDERPINNINGS

48. The prior actions for DPL 1 and triggers for DPL 2 and 3, including major policies and institutional development program, are presented below.

Policy Area A: Improving Governance, Managerial and Financial Autonomy

Prior Action #1 for DPL1

Shimla Municipal Corporation (SMC) and Himachal Pradesh have incorporated the Shimla Jal Prabandhan Nigam Limited (SJPNL) as a jointly owned, autonomous WSS company.

Indicative triggers for DPL2 and DPL3

(i) SJPNL has been devolved the WSS responsibilities by GoHP and Gram Panchayats (if applicable) in peri-urban area of Greater Shimla Area

(ii) SMC staffed with WSS expert and systems to support SMC's role and responsibilities for monitoring progress of WSS programs

(iii) SJPNL has expanded the WSS program to Shimla satellite towns and other municipalities with commercial financing and devolved responsibilities by GoHP

(iv) SJPNL has carried out external audit of annual financial statements as per the Companies Act

49. ***As a prior action, the GoHP and SMC have jointly incorporated the WSS Company under the Companies Act 2013, appointed the Board of Directors, and are selecting the independent Directors.*** With this, GoHP has achieved separation of policy making and regulatory functions from the asset ownership and service delivery functions. The SJPNL is the asset owner and fully responsible for WSS service delivery. Policy and regulatory functions rest with GoHP and SMC.

50. ***The SMC has delegated the WSS responsibility to the Company, as provided under its governing legislations, with the approval of GoHP.*** In the past, managerial and financial powers available to WSS staff were subject to the rules and approvals of the IPH department and the SMC. The Company has now been delegated the powers and responsibilities for WSS by the SMC and can operate autonomously without the need for SMC and GoHP approval, except where required by law such as for certain tariff revisions. The GoHP and SMC, as shareholders of SJPNL, have further authorized the Board of Directors to exercise all powers delegated to the Company. All WSS assets have been transferred to the Company. An Opening Balance Sheet of SJPNL would be created by March 31, 2019. Fixed Asset registers are being prepared and all assets and liabilities transferred to SJPNL are being listed. The SJPNL is setting-up banking arrangements, an accounting software, formalizing a Financial Management Manual, along with qualified staff for financial accounting. Under the Medium-term Program, the SMC and GoHP have agreed on their mutual responsibilities to support SJPNL. The GPs and other municipalities will sign a performance agreement and delegate WSS functions to SJPNL as the Program is extended to other areas.

51. Traditionally, the financial statements were in the form of budget allocations and expenditure statements of IPH and SMC. These were not consolidated, were fragmented between SMC and IPH accounts, were audited only by HP Auditor General and not publicly disclosed. SJPNL will carry out external audit of annual audited financial statements as per the requirements of the Companies Act. These will be disclosed by SJPNL publicly through its web-site and Annual Reports.

52. ***The indicative triggers for DPL2 and DPL3 would center on the devolution of WSS functions to SJPNL by the GPs in Greater Shimla, satellite townships and other municipalities in Himachal Pradesh.*** As part of the trigger for DPL 2, the GoHP and GPs in peri-urban areas will devolve the WSS responsibilities to SJPNL. Also, SMC will be staffed with a WSS expert and systems for monitoring of the WSS program. As part of trigger for DPL 3, SJPNL will access commercial financing to complement other sources of



financing for Shimla satellite towns and other municipalities. SJPNL will audit its annual financial statements as per the requirements of the Companies Act. The results under this pillar measure the functioning of the Company with at least three ULBs becoming customers of SJPNL, percentage of decisions on investment, expenditure and staff recruitment that are taken by SJPNL without reference to the GoHP, and public disclosure of audited financial statements of SJPNL.

53. Activities associated with Prior Action #1 will contribute to adaptation co-benefits through introduction of performance-agreements and more transparency at SJPNL. This will contribute to more efficient operations of WSS providers, in turn increasing the available supply of good-quality water, reducing wastage and sustaining WSS services despite the negative impacts of climate change.

Prior Action #2 for DPL1

Himachal Pradesh has approved the organizational structure and human resource policy of the SJPNL and the Board of Directors has authorized the SJPNL Managing Director to implement the approved organizational structure and human resource policy.

Indicative triggers for DPL2 and DPL3

- (i) Board of Directors adopt a competitive process for hiring of successive MD cum CEO
- (ii) Board of Directors approve Performance incentive policy for staff of SJPNL
- (iii) SJPNL is supported by global WSS Utility through performance contract for achieving annual outputs
- (iv) Performance incentive policy applied and at least one annual incentive payment disbursed
- (v) SJPNL has inducted female staff in various services (Accounting, IT, M&E systems, GRM, customer relationship)

54. ***As a prior action, an organization structure and HR policy of SJPNL has been approved by GoHP as the GoHP policies govern employee related matters of State-Owned Enterprises and SMC.*** The Board of Directors of SJPNL have been appointed and comprises senior officials from the SMC, the UDD, IPH, other representatives of GoHP, as well as two independent directors. The Board of Directors has appointed a Managing Director cum CEO of SJPNL and authorized him to implement the approved structure and human resource policy. The proposed organization structure is provided in Annex 5. If a change in MD cum CEO is required, then under DPL 2 and 3, the Board of Directors will adopt a competitive process for hiring of successive MD cum CEO, including public and private candidates, as appropriate.

55. ***Prior Action #2 and the associated indicative triggers for DPL2 and DPL3 aim to address the organizational and HR challenges of the past.*** The availability of skilled staff with a fixed tenure is an important requirement for the functioning of the SJPNL. Existing senior staff are mostly from IPH and SMC and could be recalled and posted elsewhere in the absence of a clear secondment policy with fixed tenure and assured replacement. The SJPNL should also be able to hire staff on permanent or contract basis for new roles. Further, a key shortfall in the traditional style of operations has been the lack of performance incentives for staff. The SJPNL will require a performance incentive system that provides for a) incentives to employees, b) internal performance targets, and c) regular performance evaluation of its employees.

56. ***The approved HR policy that is now pending full implementation advances this agenda.*** It details the organization structure, list of staff required, secondment modalities, hiring through open market, compensation, performance evaluation and incentive system. The company would be free to hire staff from the market on permanent or contract basis. Experienced staff from SMC, the IPH, and other departments of the Government could also be seconded to the SJPNL with an assured tenure.

57. Under DPL 2 and 3, the Board of Directors will adopt a competitive process for hiring of successive MD cum CEO with a fixed tenure of at least two years. Under DPL 2, the Board of Directors will develop a



performance incentive system for staff, equivalent to about 30 percent of staff salaries, taking into consideration similar initiatives in other sectors such as power and transport. Under DPL 2, SJPNL will enter into a partnership with a global WSS utility. DPL 3 will apply the incentive policy and carry out at least one annual disbursement based on the policy. The HR Policy will promote female staff to be hired in various services of SJPNL (Accounting, IT, M&E systems, GRM and customer relationship). In addition, the WSS Company will encourage women headed SMEs for small O&M activities. The gender informed HR policy will ensure giving equal opportunities for men and women for hiring, promoting, access to technical and professional training, mentoring systems etc. The results under this pillar measure the adherence to HR policy for hiring MD cum CEO with a tenure of at least two years, percentage of SJPNL staff receiving performance incentives based on employee performance evaluation, and at least 30 percentage female staff contracted in various services of SJPNL. Professional utility experts will be made available through a partnership with a global WSS utility to advise the MD cum CEO.

58. Prior Action #2 will enhance the Greater Shimla Area citizens' resilience to the identified climate risks through a better organizational structure and human resource policies, including performance incentive policies. This will make the WSS sector perform better and more efficiently, thereby raising the quality of service provision, i.e. uninterrupted supply of more and better-quality water, and enhancing the targeted population's adaptation to the indicated climate change pressures.

Prior Action #3 for DPL1

(a) Himachal Pradesh has issued: (i) directives on corporate governance framework; and (ii) internal performance evaluation policy for the SJPNL; and (b) the Board of Directors has authorized the SJPNL managing director to implement such framework and policy

Indicative triggers for DPL2 and DPL3

- (i) Annual review of corporate governance completed by the Board of Directors*
- (ii) At least two annual reviews of performance scorecard of SJPNL completed by the Board of Directors*

59. ***As a prior action, the directives for Corporate Governance Framework and internal performance evaluation policy have been approved by GoHP.*** The Board of Directors has authorized the Managing Director cum CEO of SJPNL to implement such a framework and policy. Companies established under the Companies Act are required to comply with mandatory corporate governance practices. Further, standards issued by professional associations like Institute of Chartered Accountants of India (ICAI) and Institute of Company Secretaries of India (ICSI) are also applicable. Companies listed under the stock exchange follow standards issued by the Securities and Exchange Board of India (SEBI). SJPNL will follow the corporate governance requirements as per law and will also adopt select standards applicable to listed companies or large companies, such as appointment of independent directors.

60. The Corporate Governance framework for SJPNL approved by the GoHP provides for: (i) Code of Conduct for Board of Directors and senior management of SJPNL; (ii) Committees to be formed; (iii) Meetings of the Board of Directors, Meetings of Independent Directors and General Meetings; (iv) Annual Compliance Report from independent directors, full time directors and senior management; (v) Code for independent directors, manner of appointment and reappointment; (vi) Internal delegation of powers to Board committees, committees of officers, managing director and others; (vii) Information to be placed before Board of Directors; (viii) Regulatory compliances, disclosures and report on corporate governance.

61. ***The SMC and GoHP have set performance standards for the WSS sector for the next 10 years as a basis for subsequent annual reviews.*** These are based on the Service Level Benchmarks of GoI and the policy objectives specified in GoHP's Water Policy (2013). Based on these standards the Board of Directors



have developed the internal performance evaluation policy for SJPNL. Under this policy, SJPNL would be evaluated based on a combined score, with respect to a) customer service, b) financial performance and efficiency, c) organizational processes and modernization, and d) implementation of investment plan. The performance of SJPNL in each of the indicators will be measured on a 5-point scale. A combined weighted average of the overall performance score will be calculated for SJPNL in the range of 1 to 5. The independent directors will carry out the yearly performance scorecard and submit the same to the Board of Directors of SJPNL for review and approval (details in Annex C5 of GoHP's Medium-term WSS Program). The Board of Directors will update this framework based on good practices in the water industry, such as Effective Utility Management, International Water Association's Manual of Performance Indicators etc. and the updated framework will be applicable from the year 2022-23 onwards. In addition to service and efficiency standards specified by SMC and GoHP, the internal performance targets also address systems and procedures to be established by the company and progress on capital expenditure plans.

62. ***The indicative trigger for DPL 2 and DPL 3 would be an annual review of corporate governance and at least two annual reviews of the performance scorecard, respectively, by the Board of Directors.***

The results will measure the percentage of corrective actions taken by SJPNL based on the recommendations of its governance review and improvements in performance scorecard ratings of SJPNL.

63. Prior Action #3 will enhance the Greater Shimla Area citizen's resilience to the identified climate risks through the corporate governance framework and performance standards, as these aim to ensure more efficient and service-oriented performance, and in turn increase adequate WSS service levels despite the adverse impacts of climate change.

Prior Action #4 for DPL1

Himachal Pradesh has approved cost recovery, tariff, and subsidy policies for WSS services in Greater Shimla Area and the SMC has adopted these policies.

Indicative triggers for DPL2 and DPL3

- (i) *SJPNL establishes WSS regulatory mechanism and applies cost recovery, tariff and subsidy policies in peri-urban areas of Greater Shimla Area*
- (ii) *SJPNL applies cost recovery, tariff and subsidy policies concurrently with expansion in its geographical areas (Shimla satellite towns and other municipalities)*

64. ***As a prior action, the GoHP has approved a cost recovery-, tariff- and subsidy-policy consistent with the cost-recovery road-map and SMC has adopted this policy.*** A systematic, depoliticized approach to tariff and subsidy setting is critical to progress towards cost recovery. At current tariff levels and collections, only 21% of O&M costs are recovered. The high cost of pumping bulk water over a height of 1400 m and long distances is a particular challenge in Himachal Pradesh. Thus, in alignment with its cost recovery roadmap, GoHP has developed a regulatory mechanism for setting tariffs and determining subsidies that contrasts with the past ad hoc approach. The GoHP and SMC have approved an increasing block volumetric tariff for Shimla city to be introduced in financial year 2018-19. A 20 percent increase will be made effective for all slabs and customers when they receive 24x7 supply. The volumetric tariff design has a lifeline consumption block that reduces the monthly bill of poor households by 50 percent as compared to the current flat fee. Tariffs would be adjusted automatically and immediately to reflect any revision in electricity charges and salary revisions and rise each financial year by 10 percent till FY2023-24, and by 8 percent thereafter, less automatic adjustments already made.

65. In case tariff needs to be increased beyond the agreed indexation, the Managing Director of SJPNL will prepare a tariff proposal based on cost recovery targets. The independent directors will provide written opinions to the Board of Directors on annual subsidy requirements and/or tariff revisions



required. The Board will determine and recommend to GoHP the annual subsidy required and/or tariff revisions by applying the cost recovery road-map and the tariff policy of GoHP. The SJPNL will forward the Board's recommendations along with the opinion of SMC, to GoHP for approval. If GoHP approves a tariff less than that recommended by the Board of Directors, it will provide additional subsidy to compensate for the revenue loss. If SMC recommends a reduction in tariff as compared to that recommended by the Board of Directors to GoHP, such reduction will take effect after SJPNL receives upfront subsidy to compensate the revenue loss to such reduction. Tariff adjustments will be complemented by proposed capital investments and efficiency measures under the Medium-term Program to reduce technical and commercial non-revenue water.

66. ***These measures are aligned with a detailed financial analysis carried out by SJPNL, and the roadmap for cost recovery approved by GoHP and adopted by SMC.*** The road map expects that by FY 2024-25 all O&M costs except for energy costs of bulk water will be recovered. Full O&M cost recovery including bulk water pumping costs will increase to 66 percent by the year 2033-34 (details in Annex 5). Due to rising production under the program, subsidy requirements will increase from INR 91 crores (USD 12.5 million) in FY 2017-18 to INR 128 crores (USD 17.5 million) in FY 2033-34, but the net subsidy per household per month will decrease from INR 1,655 (USD 22.7) in FY 2019-20 to INR 1,145 (USD 15.7) in FY 2033-34. The specially appointed GoHP committee has recommended O&M subsidies of INR 120 crores per annum (USD 16.4 million), to which the GoHP has committed. While the recommended subsidies meet projected needs, it is necessary to implement a subsidy policy that ensures SJPNL's financial viability.

67. The cost recovery, tariff, and subsidy policies under Prior Action #4 will promote energy efficiency improvements and reduction in Non-Revenue Water, supporting GoHP's commitment to climate change adaptation (by reducing the loss of water, thus indirectly increasing the available water supply) and mitigation (by raising energy efficiency of utility operations). The cost recovery roadmap will require reduction of Non-Revenue Water and use of efficient pumps to reduce O&M costs. The tariff policy will ensure affordability of a lifeline consumption for poor households while reducing wasteful use through metering and billing. The subsidy policy of GoHP is also linked to reduction of the Non-Revenue Water and other performance standards, thus encouraging SJPNL in energy saving and reducing energy footprints of WSS program.

68. ***Under DPL2 and DPL3, the cost-recovery-, tariff- and subsidy policies and mechanisms of the prior action for DPL 1 will be applied in the peri urban areas of Greater Shimla Area.*** Under DPL 3, concurrent with expansion in its geographical areas, SJPNL will apply the cost recovery, tariff and subsidy policies in Shimla satellite towns and in other municipalities that it serves in Himachal Pradesh. The results under this pillar will measure timely determination of annual tariffs and subsidies, volumetric billing of 24X7 customers, collection efficiency, O&M cost recovery (bulk water supply and distribution, and sewerage).

Policy Area B: Increasing Efficiency of WSS Operations

Prior Actions #5 for DPL1

Himachal Pradesh has approved a policy to shift from infrastructure financing to performance-based service delivery orientation.

Indicative triggers for DPL2 and DPL3

- (i) *SJPNL applies performance-based service delivery policy to peri-urban areas*
- (ii) *SJPNL expands services by applying performance-based service delivery policy to Shimla satellite towns and other municipalities*



69. **GoHP has already approved the following principles of performance-based service delivery policy for the Shimla city area:** a) each service contract will necessarily include at least one service delivery standard and one sustainability standard, b) selection of service providers will be based on competitive bidding and the selection criteria will be based on life cycle costs, c) payment to service providers will be linked to their performance, d) service providers will have full operational control and freedom to engage their own staff, equipment, instruments and systems, e) all investments in WSS assets will be financed by GoHP, SMC or SJPNL, f) SJPNL will have full concurrent access to information systems maintained by the service providers, including the customer grievance redressal mechanism and complaints database, and g) the subsidy provided by GoHP and/or SMC may be utilized to establish escrow accounts to provide payment security to the service providers (or) to electricity suppliers.

70. WSS services in Greater Shimla Area are being improved with both capital and O&M subsidies from GoHP and therefore it is important that the WSS operations achieve targeted service delivery and efficiency standards. A key policy of GoHP is providing 24x7 water supply and sewage connection to all households. However, there is limited capacity within GoHP and WSS company to achieve these goals. Therefore, GoHP has decided to adopt performance-based service delivery policy for achieving 24x7 water supply as well as other WSS service standards. GoHP has decided against private sector capital investment in WSS and has committed to provide grants to meet the requirements of the short and medium-term investment plan. GoHP has reviewed international and Indian experiences with private sector involvement in the WSS sector and consulted international experts. Based on these consultations, GoHP has finalized a policy to shift from infrastructure financing to performance-based service delivery orientation, with principles for performance-based service contracts that would have the achievement of WSS performance standards as the primary objective and will link payments to performance standards.

71. **GoHP and SJPNL have identified three performance-based service delivery arrangements under the Medium-term Program:** These services will be for i) bulk water supply from Sutlej river and existing sources, ii) water distribution on 24x7 basis and extension of sewerage system, and iii) sewage collection and treatment in peri-urban areas. With the introduction of performance-based service delivery, Prior Action #5 will specifically include incentives for energy efficiency improvements, supporting GoHP's commitment to climate change adaptation and mitigation by contributing to increased supply of water (strengthening the former) and efficient energy consumption (enhancing the latter). The private service provider is expected to bring new technologies and practices for managing water supply and sewage treatment and disposal. Improvement of operations of the sewerage system will contribute to climate change adaptation efforts by mitigating the potential impact of floods thereby reducing the chance of wastewater infrastructure being overwhelmed and (ground) water becoming contaminated, and by improving the quality and volume of treated wastewater thereby protecting environmental and human health.

72. Under DPL2 the performance-based service delivery policy will be applied to peri-urban areas. Under DPL 3, SJPNL will expand its services to satellite towns in Greater Shimla Area, and to other municipalities in Himachal Pradesh and will apply the performance-based service delivery policy in these areas. The results under this action will measure the percentage WSS customers who receive continuous water supply and are connected to sewage system under performance-based service delivery policy.

Prior Action #6 for DPL1

Himachal Pradesh has approved a policy to improve energy efficiency in WSS operations.

Indicative triggers for DPL2 and DPL3



- (i) *SJPNL applies energy efficiency policy to determine tariffs and subsidies.*
- (ii) *SJPNL applies energy efficiency policy for at least one annual revision of tariffs and subsidies*

73. As a prior action, GoHP has approved a policy to improve energy efficiency in WSS operations.

Under this policy, GoHP has set energy efficiency targets and also specified practices to be followed to monitor and optimize energy consumption on a continuous basis. The performance-based program with service providers will also include energy efficiency targets. Under DPL2 and DPL3, SJPNL will apply the energy efficiency policies to prepare tariff and subsidy proposals. The results under this pillar will measure the energy consumption of water production from existing sources and reduction in Non-Revenue Water.

74. Improving energy efficiency is critical to achieving financial sustainability and reducing reliance on GoHP subsidies as WSS operations in Greater Shimla Area are highly energy intensive due to pumping of bulk water over long distances. The energy efficiency policy of GoHP for Greater Shimla Area requires SJPNL to reduce unit energy consumption by 20 percent¹⁰ (7.69 kWh/kl of water to less than 6.15 kWh/kl of water produced from existing sources) through a package of electrical and hydraulic measures including (a) contract demand optimization, (b) power factor improvement, (c) avoidance of operation in peak hours, (d) energy efficient pumps, (e) modification of suction line, and (d) minimization of leakages.

75. The energy efficiency policy under Prior Action #6 will contribute to both climate change adaptation and mitigation. This includes renewable energy development measures for reduction of CO₂ e/year by harnessing solar power potential. More efficient operations will increase the available supply of water and thereby contribute to adaptation. Lowering energy consumption through increased energy efficiency will also lead to reduction of GHG emissions. Based on current energy consumption levels of approximately 97 GWh/year, the target is expected to translate to energy savings of about 19.4 GWh/year corresponding to a reduction of about 14,600 tons of CO₂e/year¹¹. Since the current water production level of 40 MLD does not meet demand and production will increase as WSS infrastructure is rehabilitated and extended, the absolute energy savings and GHG reductions compared to the existing water production status may be lower. However, comparing the water production growth scenario with current energy efficiency levels and the growth scenario with improved energy efficiency will result in a higher absolute energy savings and GHG reductions. The achievement of the energy efficiency improvements is not only a result of the energy efficiency policy under Prior Action #6, but, is also supported by the introduction of internal performance evaluation under Prior Action #3, the cost recovery, tariff, and subsidy policies under Prior Action #4, performance-based service delivery under Prior Action #5, and the policy to monitor energy efficiency and Non-Revenue Water under Prior Action #7.

Policy Area C: Increasing Customer Orientation and Accountability

Prior Action #7 for DPL1

Himachal Pradesh has approved: (i) a policy on monitoring of WSS service performance; and (ii) a policy on WSS service grievance redressal mechanism.

Indicative triggers for DPL2 and DPL3

- (i) *SJPNL implements M&E and grievance redressal policies with on-line access to WSS customers for grievance redressal and customer feedback*
- (ii) *SJPNL carries out annual customer surveys (including feed-back from women and poor households)*

76. The GoHP has approved the policy on monitoring of WSS service performance and grievance

¹⁰ Based on a detailed energy efficiency improvement study carried out for the GoHP Medium-term Program.

¹¹ Based on an emission factor of 0.754 tCO₂/MWh (50/50 combined margin for India).



redressal mechanism. The State already has a “Himachal Pradesh Public Services Guarantee Act” which stipulates the time commitment for provision of services, the concerned responsible officer and appellate authorities. The responsibilities of the IPH and UDD are specified in the Act. However, this mechanism is not fully functional in the Greater Shimla Area. The WSS operations have a traditional complaint redressal system through telephone and website. There is no Citizen Charter and therefore the customers do not have a minimum service level assurance for key service parameters, such as hours of delivery, minimum pressure, minimum quantity of water per capita etc. There are no customer satisfaction surveys which capture the voice of the customers or their suggestions incorporated in the WSS operations. Only daily supply and water quality are regularly monitored. To strengthen service delivery orientation, based on the Himachal Pradesh Public Services Guarantee Act and good practices in WSS sector, the GoHP intends to increase customer orientation, accountability and grievance redressal through comprehensive policies.

77. The SJPNL will establish a robust Monitoring and Evaluation framework using global WSS benchmarks and Gol’s Service Level Benchmarks. The SJPNL will develop utility systems and databases to collect performance data. SJPNL would also follow a protocol for regular reporting and disclosure of performance. Disaggregated performance of service delivery of SJPNL for various customer groups, including to poor and vulnerable sections will be gathered. Reporting and disclosure will place special emphasis on sharing information with SMC, poor and vulnerable sections.

78. For grievance redressal, SJPNL will develop service standards schedule and time commitments for WSS services in Greater Shimla in line with the HP Public Service Guarantee Act, 2011. The SJPNL will implement a grievance redressal mechanism, social outreach and annual customer satisfaction surveys and citizen report cards. The grievance redressal mechanism will have multiple avenues for customers to record grievances including online access, systematic recording and acknowledgement of grievances, forwarding of grievances to officers responsible for resolution, updating concerned elected representatives, monitoring of resolution, feedback to customers, and escalation and closure. The grievance redressal mechanism would have special provisions for the poor and vulnerable, including women, scheduled castes and tribes. The policy also includes methods by which service delivery and women involvement will be monitored with regular customer satisfaction surveys and citizen report cards.

79. The M&E policy implemented under Prior Action #7 will also monitor improvements in energy efficiency and Non-Revenue Water, thus supporting the GoHP’s commitment to climate change mitigation and adaptation. The customer orientation policy under the WSS program would also provide information to consumers to raise awareness of climate change related challenges and efficient water utilization.

80. Under DPL 2, the WSS Company will implement M&E and customer grievance redressal policies and provide online access to WSS customers for grievance redressal and feedback. Under DPL 3, annual customer surveys will be conducted to assess satisfaction with service delivery, with emphasis on women and the urban poor. The annual surveys would also assess the impact from improved water services on (i) time saving, and (ii) any changes in incidents of waterborne diseases incidents. The results under this action will track timely publication and disclosure of reports on SJPNL performance, customer satisfaction and citizen report cards. The results will also measure the percentage of WSS complaints redressed within the specified period. The results will be published, and corrective actions taken.

81. **Summary of GoHP and SMC approvals for policies and institutional development program¹²:** The GoHP and SMC have issued the required Government notifications and approvals as follows:

(a) *On Medium-term Program and formation of SJPNL:* (i) Approved Medium-term WSS program

¹² GoHP Medium-term Program, Government Orders, Cabinet approval, SMC resolutions & SJPNL policies are included as supporting documents



document for WSS in Greater Shimla (2018); (ii) Government notification of Medium-term WSS Program, with a) role and responsibilities of SJPNL, b) WSS service standards including energy efficiency standards, institutional and policy targets, c) GoHP grants for capital investment, d) principles of performance-based contracts, e) cost recovery, tariff and subsidy policy, regulatory mechanism, and f) customer orientation and accountability (2018); (iii) Cabinet resolution for formation of SJPNL (2018); (iv) SMC resolution for formation of SJPNL (2018); (v) Delegation of WSS functions by SMC to SJPNL (2018); (vi) Approved tariff structure (2018) and also the tariff, cost recovery and subsidy policy (2018)

(b) *On structure and policies for SJPNL:* (i) Memorandum of Association; (ii) Articles of Association; (iii) Organisation Structure and Human Resource (HR) Policy; (iv) Corporate Governance Framework; (v) Internal performance evaluation policy; (vi) Monitoring and Evaluation and Grievance Redressal Mechanism; (vii) Outline Business Plan.

82. The analytical underpinnings for the Prior Actions are given below.

Table 4: DPF Prior Actions and Analytical Underpinnings

Prior Actions	Analytical Underpinnings
Policy Area A: Improving Governance, Managerial and Financial Autonomy	
Prior Action #1 Shimla Municipal Corporation (SMC) and Himachal Pradesh have incorporated the Shimla Jal Prabandhan Nigam Limited (SJPNL) as a jointly owned, autonomous WSS company.	(i) Report of the committee chaired by Additional Chief Secretary (Health), 2016, GoHP (ii) Institutional Options Study for the Proposed Greater Shimla Water Supply and Sewerage Project, 2017, JJC Advisory Services (iii) Aligning Institutions and Incentives for Sustainable Water Supply and Sanitation Services, 2018, World Bank (iv) GoHP cabinet approval April 16, 2018, for formation of company (v) Utility Turnaround Framework, 2018, World Bank
Prior Action #2 Himachal Pradesh has approved the organizational structure and human resource policy of the SJPNL and the Board of Directors has authorized the SJPNL MD to implement the approved organizational structure and HR policy	(i) Characteristics of well performing utilities, 2006, World Bank (ii) Government Order IPH-B(A) 1-1/2016 dated 12th July 2016, GoHP (iii) Memorandum of Understanding between Shimla Municipal Corporation, Irrigation and Public Health Department and Urban Development Department, 2016, GoHP
Prior Action #3 (a) Himachal Pradesh has issued: (i) directives on corporate governance framework; and (ii) internal performance evaluation policy, for the SJPNL; and (b) the Board of Directors has authorized the SJPNL managing director to implement such framework and policy	(i) Characteristics of well performing utilities, 2006, World Bank (ii) The Companies Act, 2013 (iii) Corporate Governance in Listed Entities – Amendments to Clause 49 of the Listing Agreement, 2014, Securities and Exchange Board of India Guidelines (iv) Accounting Standards, Institute of Chartered Accountants of India (ICAI) (v) “Meetings of the Board of Directors” (SS-1) and Secretarial Standards on “General Meetings” (SS-2), Institute of Company Secretaries of India (ICSI)



<p>Prior Action #4 Himachal Pradesh has approved cost recovery, tariff, and subsidy policies for WSS services in Greater Shimla Area and the SMC has adopted these policies.</p>	<ul style="list-style-type: none"> (i) Improving Urban Water Supply and Sanitation Services, 2012, World Bank and GoI (ii) Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services, 2006, World Bank. (iii) Achieving financial sustainability and recovering costs in bank financed water supply and sanitation and irrigation projects, 2012, World Bank. (iv) Urban Water Utility Reform – A tool for analysis and dialogue, 2015, State Secretariat for Economic Affairs, Swiss Confederation (v) Institutional Options Study for the Proposed Greater Shimla Water Supply and Sewerage Project, 2017, JJC Advisory Services (vi) Aligning Institutions and Incentives for Sustainable Water Supply and Sanitation Services, 2018, World Bank (vii) Reports on situation analysis of WSS in Greater Shimla region, 2018, GoHP (viii) Designing and implementing successful water utility reform: Achieving financial sustainability, meeting revenue requirements and setting tariffs, World Bank Institute
<p style="text-align: center;">Policy Area B: Increasing Efficiency of WSS Operations</p>	
<p>Prior Action #5 Himachal Pradesh has approved a policy to shift from infrastructure financing to performance-based service delivery orientation.</p>	<ul style="list-style-type: none"> (i) Characteristics of well performing utilities, 2006, World Bank (ii) Public-Private Partnerships for Urban Water Utilities. A Review of Experiences in Developing Countries.” 2009, PPIAF/World Bank. (iii) Service Level Benchmarking, 2011, GoI (iv) Improving Urban WSS Services, 2012, World Bank and GoI (v) Professionalization contracts for small municipal water service providers in India; 2015, World Bank (vi) Institutional Options Study for the Proposed Greater Shimla Water Supply and Sewerage Project, 2017, JJC Advisory Services (vii) Proceedings of the Global WebEx conference for GoHP on private sector participation experience in WSS sector, 2018, World Bank (viii) Proposed Service Delivery arrangements in Greater Shimla Area, GoHP, 2018 (ix) Need for strategic and sustained outreach and communications with stakeholders, WB Urban WSS Projects
<p>Prior Action #6 Himachal Pradesh has approved a policy to improve energy efficiency in WSS operations.</p>	<ul style="list-style-type: none"> (i) Report on review of energy efficiency in Greater Shimla Region, 2018, GoHP (ii) State Strategy and Action Plan on Climate Change, 2012, GoHP
<p style="text-align: center;">Policy Area C: Increasing Customer Orientation and Accountability</p>	
<p>Prior Action # 7 Himachal Pradesh has approved: (i) a policy on monitoring of WSS service performance; and (ii) a policy on WSS service grievance redressal mechanism.</p>	<ul style="list-style-type: none"> (i) Characteristics of well performing utilities, 2006, World Bank (ii) Himachal Pradesh Public Services Guarantee Act, 2011, Government of Himachal Pradesh (iii) Service Level Benchmarking, 2011, Government of India (iv) Institutional Options Study for the Proposed Greater Shimla Water Supply and Sewerage Project, 2017, JJC Advisory Services (v) Need for strategic and sustained outreach and communications with stakeholders, WB Urban WSS Projects



4.3 LINK TO CPF, OTHER BANK OPERATIONS AND THE WBG STRATEGY

83. ***The proposed program is consistent with the World Bank Group's Country Partnership Framework (CPF) FY18-22 discussed at the Board on September 20, 2018 (Report No. 126667-IN).*** The CPF focuses on a more resource-efficient growth path for India, in which improving living conditions and sustainability of cities through improving water systems is a direct contributor. The new CPF specifically recognizes that India needs to bring greater efficiency, accountability, and stronger governance to public institutions to make them more competitive and ensuring that policy reforms and input investments better translate to last mile service delivery and development impact. This operation is the first DPL in the water sector involving a major attempt of institutional transformation in Himachal Pradesh, India. This institutional transformation aligns with the CPF as the GoHP and Shimla Municipal Corporation incorporate a jointly owned autonomous WSS Company with devolved responsibilities for improving WSS services, along with policies for service delivery orientation, tariff reforms and cost recovery, enhancing customer engagement, disclosure of annual performance reports and citizens report cards. The operation could also become a template to be replicated elsewhere in India and other countries.

84. ***The proposed program directly contributes to the World Bank Group's twin goals of ending extreme poverty and promoting shared prosperity.*** The policy and institutional reforms will improve WSS services and reduce the burden of water collection, storage and related coping mechanisms and costs, as well as reduce instances of water borne diseases. The proposed program also addresses the broader goal of gender equality and empowerment by reducing drudgery of low-income groups, especially women, in collecting and storing water, time savings and enhancing income generation activities and improved personal and domestic hygiene practices. The proposed program will enhance female employment at SJPNL by up to 30%. The proposed improvement in WSS policies and institutions would result in more climate change-resilient water supply infrastructure. The citizen engagement and grievance redressal activities would especially target low-income groups and women beneficiaries in planning and implementation phases of water supply schemes.

85. ***Maximizing Finance for Development:*** This DPL is supporting public sector reforms, including improving operational and financial sustainability of services through an autonomous and accountable WSS Company and thus strengthening the capacity of SMC and GoHP to improve services. This will improve the credit-worthiness of SJPNL and enhance the chances of future private financing.

4.4. CONSULTATIONS AND COLLABORATION WITH DEVELOPMENT PARTNERS

86. ***The GoHP has carried out several consultations for firming up the proposed operation.*** As a follow-up to the PIL case and court order, the GoHP Committee has carried out several consultations, including with the Ministry of Urban Development, sector and state officials, SMC, NGOs, state politicians, etc., to firm up the sector program. The proposed operation has also benefitted from sharing of global experiences through presentations and a webex meeting involving SABESP Brazil, Waternet Netherlands, IFC advisory and Public Private Partnership (PPP) teams, sector experts from South Africa, Singapore, Washington, and UK. Recently, the SJPNL has carried out several outreach consultations with concerned stakeholders, including the Council of Ministers, SMC, UDD, IPH, labor unions and representative domestic and commercial customers on the key reform areas including formation and structure of the WSS Company, design of tariffs, service delivery options, etc. The PPP options and design of tariffs have been discussed at meetings in the SMC and with the Council of Ministers. The GoHP has a track record of consulting stakeholders and further consultations are planned on the implementation of the WSS reforms.

87. ***Development partners in the WSS sector in Himachal Pradesh have been focusing on building capacity of the new institution.*** While the Bank will be financing this operation as a unique development



partner, the performance-linked financing for improving service delivery through the WSS Company would be a critical element for successful investments through other development partners in the WSS sector in Himachal Pradesh. The GoHP has had a successful partnership with World Waternet (Netherlands) to learn good practices for design and implementation of WSS programs and improving services. Further, this operation, while contributing positively in the improvement of accountable and efficient WSS services in Himachal Pradesh, will also pave the way for such programs in other states in India and other developing countries, including efforts of other development partners.

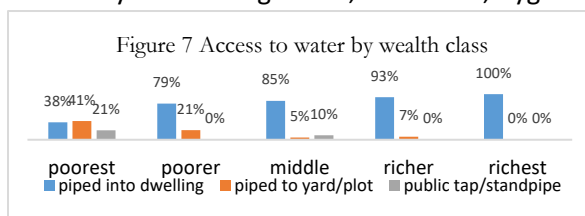
5. OTHER DESIGN AND APPRAISAL ISSUES

5.1. POVERTY AND SOCIAL IMPACT

88. **Expected Poverty and Social Impact:** The program is expected to be positive for the WSS customers within the Greater Shimla Area in view of improvements in water quality, standards of services, lifeline tariffs and mechanisms for complaint redressal. The prior actions relating to cost recovery, tariff, and subsidy policies is likely to impact the poor and vulnerable positively with respect to affordability and current coping mechanisms. However, institutional changes may cause apprehension amongst customers if they are not adequately informed and consulted. Poverty and social impacts have been analyzed.

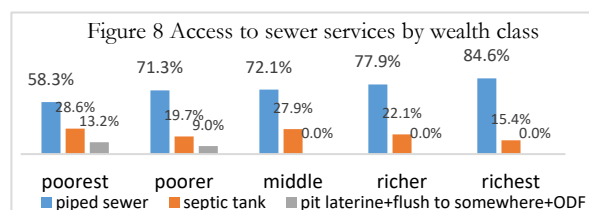
Poverty Analysis: Findings from secondary sources of data

89. The analysis uses data on the Shimla district from surveys of residential water consumption such as the National Family Health Survey 4 (2015-16), the NSS survey on drinking water, sanitation, hygiene and housing condition (2012) and a study conducted by the SMC. Restricting the geographic scope implies a small sample size of 142 households in NFHS survey and 48 households in NSS survey



Access to WSS services

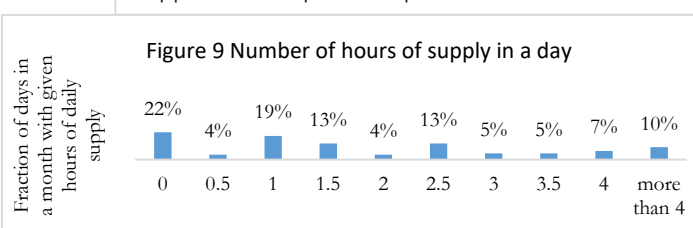
90. Access to piped drinking water and piped sewer connected is high for households in the region. The population census of 2011 reports 82 percent households receiving drinking water directly to their dwelling premises, 13 percent receiving it near their premises and 4.8 percent households receiving it away from their premises. In terms of sewage, 71 percent of households in the area had access to a piped sewer and 19 percent connected to a septic tank.



91. The poorest households, as measured by NFHS 2015/16 wealth index of urban households in the state of Himachal Pradesh, appear to primarily depend on public water taps for their supply needs. Inequitable access is also evident in sewerage services: close to 13 percent of the poorest urban households are either engaged in open defecation or use a pit-latrines, the richest households almost exclusively use piped sewerage connections.

Current supply and water quality standards

92. **Shared piped water connections:** Piped water connections are often shared between households. The dependency ratio of households per connection is about two households for each domestic connection. Violette (2017) in another developing country context, shows that low-income





households tend to enter into shared piped water arrangements more than others. In parts of the city (such as the Totu ward region), household dependency can potentially be as high as 12 households per connection. If the poorest and vulnerable households are unable to negotiate favorable sharing arrangements, the adverse effects on such households during periods of supply restrictions can be especially pronounced.

93. *Intermittency of supply and quantity rationing:* The supply quality in Shimla is highly intermittent. During summer seasons, residents receive supply of water only on alternate days. In terms of supply over the month, the city receives no water for about seven days a month. Figure 9 shows that the median hours of daily supply are 1 to 1.5 hours.

94. In a study conducted by SMC, the median level of supply to households is about 90 LPCDs. However, there appears to be high degree of inequality in the amount of water supplied: households at the top of the consumption decile are supplied thrice as much water as the median household. Restrictions and geographic inequality in the supply of water is expected to have a greater adverse effect on the poorest and vulnerable households. The coping cost of buying water from informal sources (e.g. tankers) may be considerable for the poor. The proposed improvements in supply quality (prior action #5) are expected to mitigate the need for household storage as water becomes available more regularly. Similarly, wider access to piped connections is expected to reduce the need to rely on informal sources.

95. *Impact of water on health and coping costs:* Although the distributional incidence of water borne diseases is difficult to measure quantitatively, poorer households are expected to face a higher coping cost of illness in the form of greater out-of-pocket expenditures and income foregone due to loss of day's work. Poorer households in Shimla are also more vulnerable to contracting these water-borne diseases, as 30 percent of such households do not treat their water before consumption. In contrast, richest households use some form of filter to purify water before consumption. This program is expected to reduce this disproportionate risk of water borne diseases on the vulnerable households.

Affordability of water and Incidence of current tariff

96. Based on the 69th round of NSS data, the share of monthly water expenditure as a proportion of household total monthly consumption is highest for the bottom 25 percentile of the households by consumption in Shimla. These households pay up to 2 percent of their consumption expenditures for water, a value as low as 0.65 percent for the rest of the population. The proposal for volumetric pricing is expected to correct the present regressive price structure. The affordability impact of coping mechanisms of poor households without connections – e.g. the use of private tankers – has been analyzed as part of a Poverty and Social Impact Analysis.

97. The Poverty and Social Impact Analysis (PSIA) was carried out to study the distributional impacts of reforms on the different social groups, with a focus on the low-income and vulnerable groups. The study is summarized in Annex 6 and confirms the expected positive impact of the proposed operation.

98. *Gender Aspects:* The DPL will also positively contribute to addressing gender inequality through its prior actions, leading to improved and better targeted services and thereby positively impacting women. The PSIA (see Annex 6) indicates that responsibility of water collection in majority of households, irrespective of income, lies with female household members. The irregular timing of water supply impacts both female students going to school and working women. FHHs and women from low income groups reported both adults and children suffering from health issues arising from water borne diseases and spending a proportion of their income on treatment related expenditures. The proposed WSS program is thus expected to disproportionately benefit women by expanding access and improving quality and regularity of supply. Grievance redress mechanisms will also include special provisions to reach out to,



and elicit concerns of female customers. An annual review of customer grievance redressal mechanism as well as annual customer satisfaction surveys will lay emphasis on women related grievances and their satisfaction levels. Furthermore, the DPL supported program will increase the percentage of female staff in SJPNL, which at present is next to zero. In addition, SJPNL will hire female entrepreneurs for carrying out O&M related activities. By the end of the program, SJPNL shall target to increase the share of female staff in selected services (customer relationship, IT, M&E and accounting) to 30 percent. The increase in female employment will be tracked through result indicator.

5.2 ENVIRONMENTAL ASPECTS

99. ***The policy reforms supported by this operation are not likely to have any significant adverse effects on the environment, forests and natural resources.*** By creating and strengthening SJPNL, the prior actions will enhance environmental management in general. Under Prior Action #2, SJPNL will also hire environmental staff to coordinate with the various line departments, regulatory agencies, communities and contractors. SJPNL's systems and procedures will explicitly integrate the management of environmental, safety and health issues. Though the policies do not entail likely significant effects, the GoI / GoHP's regulatory systems - environmental, forests and pollution control acts and regulations - were assessed and found to be adequate to manage the effects related to the policy and institutional reform. While all the prior actions will bring positive environmental benefits, those promoting energy-efficiency policies (Prior Actions #6) will also entail climate-related benefits. Energy savings could lead to a commensurate increase in the power exported to the northern high-carbon, coal-oriented grid. This will contribute towards a reduction in the GHG emissions as well.

100. ***Climate change and disaster risks:*** As described earlier, this program intends to address the Greater Shimla Area's climate vulnerabilities by increasing the water utility's ability for adaptive WSS management to adequately cope with climate and geophysical hazards:¹³

- ***Extreme temperature:*** In the Shimla region, extreme heat hazard is classified as medium, implying there is more than a 25 percent chance that at least one period of prolonged exposure to extreme heat, resulting in heat stress, will occur in the next five years. According to the most recent assessment report of the Intergovernmental panel on Climate Change (IPCC, 2013), the temperature increase in the next fifty years will be slightly higher in the Himalayas than the worldwide average. Extreme temperatures can affect water resources, treatment and demand.
- ***Drought:*** Water scarcity is classified as medium, implying that there is up to a 20 percent chance that droughts will occur in the coming 10 years. Droughts can affect quantity and quality of water supply.
- ***Extreme precipitation and flooding:*** Urban flood hazard is classified as medium, implying that there is a chance of more than 20 percent that potentially damaging and life-threatening urban floods occur in the coming 10 years. Extreme precipitation and flooding can affect the quality and continuity of water, wastewater and sanitation services.
- ***Geophysical hazards:*** Earthquake hazard is classified as medium, implying that there is a 10 percent chance of potentially-damaging earthquake in the Greater Shimla Area in the next 50 years. Earthquakes can cause physical damage to water infrastructure. The WSS program ensures compliance with engineering standards prescribed for such events in all its engineering designs.

101. This operation will address the climate vulnerabilities and enhance the Greater Shimla Area citizens' resilience to the identified climate risks by increasing the water utility's capacity for adaptive WSS management to adequately cope with rising water stress, extended periods of drought, extreme precipitation, and flooding. In addition, the WSS Company will have partnership with a global utility for

¹³ Exposure to climate and geophysical hazards and exposure ratings were determined using the Think Hazard! Tool (<http://thinkhazard.org>)



building its capacity for adaptive WSS management. The proposed WSS program will also augment bulk water supply from Sutlej as a perennial source of water, rather than continuing with traditional spring sources which are depleting as evidenced from recent supply crisis.

5.3 PFM, DISBURSEMENT AND AUDITING ASPECTS

102. **Public Financial Management Systems (PFM) in the state have been assessed and found to be adequate.** The GoHP is engaged with the Bank on a PFM reform program and the Bank has extended a loan to support Himachal Pradesh's reform initiatives (P 156687). As part of the diagnostic work for this loan, the Bank has assessed that Himachal has adequate systems for planning, budget formulation, funds flow and execution – with adequate systems to ensure accountability. The State budgeting process is completed before commencement of the Financial Year (FY) i.e. April 1 of each year. The budget process is robust, and the detailed budget document is published on a regular basis in March each year and made available on the Himachal Pradesh website and in a printed format. Like all states in India – department-wise budgets are prepared, and formats follow a standard functional classification. The progress and expenditure information are made available on the GoHP website on a regular basis and the key expenditure making agency i.e. State Treasury, publishes data every month. The PFM reform project takes this further and includes a disbursement linked Indicator on transparency and citizen engagement.

103. **The proposed loan will follow the Bank's disbursement procedures for Development Policy Financing.** Upon effectiveness of the loan, and on confirmation that all the prior actions have been met, the borrower, i.e., the GoI will submit a withdrawal application to the Bank. The Bank will disburse the US dollar proceeds to the credit of GoI's account with the Reserve Bank of India (RBI). This account is controlled by the Office of the Controller of Aid, Accounts, and Audit (CAAA) of the Department of Economic Affairs, GoI and is part of the GoI's general foreign exchange reserves. Upon receipt of the loan proceeds, GoI will transfer the equivalent rupee amount to GoHP as per the guidelines for the transfer of external assistance to 'special category/ hill' states on a 90 percent grant and 10 percent loan basis. GoHP will confirm to the Bank within 30 days, the receipt and credit of the loan into the State Consolidated Fund.

104. **Disbursement of the loan proceeds would not be linked to specific purchases.** The proceeds may be used for any purpose in support of the Program other than to finance excluded expenditures (as defined in the loan agreement). Pursuant to the legal agreements for this operation, India (as the borrower of the loan) and GoHP will not use the proceeds to finance any excluded expenditures.

105. **State finances are audited by the Comptroller and Auditor General (CAG) of India.** The CAG is the Supreme Audit Institution of India and is responsible for audit of Annual Financial Statements of the GoI as well as all State Governments. The CAG's audit report is usually made available to the public within six to ten months of the end of the FY. The independence of the CAG and auditing standards are acceptable to the Bank. Based on the outcomes of the assessment, the PFM system is considered adequate and additional requirements are not necessary.

5.4. MONITORING, EVALUATION AND ACCOUNTABILITY

Monitoring and Evaluation

106. **Monitoring, evaluating, and disclosing the progress of actions and results is an important component of the Program.** The SMC and GoHP have specified the performance standards for WSS. The results within the Greater Shimla Area, which are the responsibility of the SJPNL, the WSS Company, would be monitored by the Board of Directors. The Board will set internal performance targets and annual performance reviews would be conducted by the independent directors in the Board. The SJPNL would also be audited by external auditors. The performance of service providers would also be reviewed



annually. The SJPNL will develop the data collection and reporting systems required to monitor results and will collect disaggregated service delivery status for various customer groups, specifically the poor and vulnerable. The service providers would also be responsible for implementing the customer database, and monitoring systems, billing and collection systems, and grievance redressal mechanism. In addition, regular customer surveys would also be conducted by SJPNL. The SJPNL will implement accounting and financial management systems. M&E shall also capture impacts and benefits from the program. The results of surveys, citizen report cards, performance reviews and audits will be disclosed to the public and emphasis will be on sharing information with SMC, poor and vulnerable sections of citizens. There shall be suo-moto disclosure of key information (physical, financial, administrative) on the company website. Thus, the Program will implement data collection, reporting, and performance review and disclosure mechanisms. This will strengthen the monitoring of results in the WSS sector in the Greater Shimla Area.

107. **Grievance Redressal.** Communities and individuals who believe that they are adversely affected by specific country policies supported as prior actions or tranche release conditions under a World Bank Development Policy Operation may submit complaints to the responsible country authorities, appropriate local/national grievance redress mechanisms, or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

6. SUMMARY OF RISKS AND MITIGATION

108. The overall risk for the program is rated as *High*. The key areas of high risks and measures to address the issues are as follows:

- (i) **The Political and Governance Risk is rated as High.** The program supports a major public-sector reform of establishing an autonomous and accountable WSS Company. The powers of policy making, regulation and oversight, asset ownership and service delivery are being separated and resistance may arise as these functions were previously performed substantially by the IPH Department. The risks are partially mitigated since the prior actions arise from GoHP's own reform agenda which was formalized through a Government Order in July 2016 and has made substantial progress. The design of the operation as a programmatic DPL in three phases introduces decision points before the next phases of the DPL to mitigate risks including possible wavering in the reform commitment.
- (ii) **The Technical Design of Program Risk is rated as High.**
 - **A package of policy and institutional reforms:** A package of policy and institutional reforms are being implemented over a short period which have limited precedent in India. Recognizing this risk, the DPL Program has front loaded the critical reforms such as setting up the WSS Company, tariff revisions, assured subsidies, energy efficiency improvements, and performance-based service contracts, with the first three reforms already achieved. These will already be major achievements for the WSS sector in India even in the unlikely event of not achieving triggers for DPL 2 and 3.
 - **Challenges of performance-based service delivery arrangements:** There are several challenges of performance-based service arrangements, including designing the contracts, attracting sufficient competition, and poor performance of the service provider. However, this risk can be addressed by



ensuring that the performance contracts are of good quality based on market sounding and sector experience. Also, the SJPNL is taking up demo zones through simpler contracting measures which can be replicated if the performance-based service contracts are not successful. Moreover, the GoHP could consider contracting several small service operators under multiple service agreements supporting the SJPNL.

- **Capacity of SMC and SJPNL.** The current capacity of SMC and SJPNL remains limited, and the Board of Directors comprise mostly GoHP members, which could create conflicts of interest given the roles of SMC and GoHP as shareholder, regulator and policy maker. As mitigation measure, this operation reinforces the separation of powers by building capacity of SMC and SJPNL to discharge their respective roles while maintaining the autonomy of SJPNL.
- **SJPNL staffing and labor issues.** The SJPNL currently has 370 staff from IPH and SMC. The company has a staffing plan which has been discussed with the labor unions. Staff are given the option to go back to their parent organization or to stay within the WSS Company. Given the small numbers, there is confidence that the staff who would like to stay can get absorbed in SJPNL. While this is not a primary risk, it could become an issue if existing staff are not absorbed in the WSS Company especially after a private service provider takes over bulk supply and distribution.
- (iii) **The Institutional Capacity for Implementation and Sustainability Risk is rated as High.** While the governance improvements targeted follow global good practices, these are unprecedented for the WSS sector in India. Parallel activities to improve service delivery and financial sustainability are also challenging. The program benefits from progress already made, notably the institution of a capable Board of SJPNL, including independent directors. The GoHP has already implemented a DPL in climate change and is therefore aware of the implementation requirements. The program also benefits from the experience the state has in implementing comparable reforms in the electricity sector.
- (iv) **The Stakeholders risk is rated as High.** The package of policy and institutional reforms involve several stakeholders including SMC, IPH, government employees, domestic and commercial customers, and political representatives. The risks due to expectations and apprehensions of these multiple stakeholders are high. Lack of immediate results could undermine the reform consensus, and entrenched interests may resist the new autonomy and performance-based approach. However, the recurring water crisis and jaundice outbreaks have increased stakeholder support and consensus for reforms. In addition, the political stakeholders in the local body and state government are also aligned and the next elections are due only in 2022, providing a stable political context. The SJPNL has also carried out several consultations with concerned stakeholders on the key reform areas.

109. **Macroeconomic risks are assessed and considered moderate.** This is in view of India's strong macroeconomic fundamentals, as well as of the fact that the State's fiscal contribution to the program (a yearly commitment of 120 INR crore -roughly \$16 million- until 2033 for cost recovery) represents a relatively small share of total State revenues (circa 0.3% in FY17/18).

110. **The operation has been screened for climate and disaster risks using the Bank's "Climate and Disaster Risk Screening Tool."** Based on the screening, the operation's location – Shimla – may be exposed to climate and disaster risks resulting in a "moderate" exposure rating (see section 5.2 for details). The operation aims to address the climate risks through the prior actions. In addition, the climate risks will be further reduced through the National Action Plan on Climate Change implemented concurrently.



Table 5: Summary Risk Ratings

Risk Categories	Rating
1. Political and Governance	● High
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● High
5. Institutional Capacity for Implementation and Sustainability	● High
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● High
9. Other	
Overall	● High



ANNEX 1: POLICY AND RESULTS MATRIX

Policy Area A: Improving Governance, Managerial and Financial Autonomy

Prior Actions for DPL 1	Indicative Triggers for DPL 2	Indicative triggers for DPL 3	Results Indicators (DPL 1, 2, and 3)
1. Shimla Municipal Corporation (SMC) and Himachal Pradesh have incorporated the Shimla Jal Prabandhan Nigam Limited (SJPNL) as a jointly owned, autonomous WSS company	<p>(i) SJPNL has been devolved the WSS responsibilities by GoHP and Gram Panchayats in peri-urban area of Greater Shimla Area</p> <p>(ii) SMC staffed with WSS expert and systems to support SMC's role and responsibilities for monitoring progress of WSS programs</p>	<p>(i) SJPNL has expanded WSS program for Shimla satellite towns and other municipalities with commercial financing and devolved responsibilities by GoHP</p> <p>(ii) SJPNL has carried out external audit of annual financial statements as per Companies Act</p>	<p>(i) Number of ULBs as customers of the SJPNL Baseline: 1. Target: 3. Target date December 31, 2024.</p> <p>(ii) Percentage of decisions on investment, expenditure and staff recruitment referred to GoHP for approval. Baseline: All; Target: Nil. Target Date: December 31, 2024.</p> <p>(iii) Annual audited financial statements of SJPNL publicly disclosed Baseline: No consolidated financial statement available. Target: External audit completed, and financial statements approved by shareholders and disclosed within six months of end of each financial year. Target Date: September 30 of each year</p>
2. Himachal Pradesh has approved the organizational structure and human resource policy of the SJPNL and the Board of Directors has authorized the SJPNL Managing Director to implement the approved organizational structure and human resource policy	<p>(i) Board of Directors adopt a competitive process for hiring of successive MD cum CEO.</p> <p>(ii) Board of Directors approve Performance incentive policy for staff of SJPNL;</p> <p>(iii) SJPNL is supported by global WSS Utility through performance contract for achieving annual outputs</p>	<p>(i) Board of Directors adopt a competitive process for hiring of successive MD cum CEO.</p> <p>(ii) Performance incentive policy applied and at least one annual incentive payment disbursed</p> <p>(iii) SJPNL has inducted female staff in various services (Accounting, IT, M&E systems, GRM, customer relationship) SJPNL will encourage women</p>	<p>(i) Adherence to HR Policy for hiring MD cum CEO with a fixed tenure of at least two years Baseline: NA. Target: 100% adherence. Target Date December 31, 2024.</p> <p>(ii) Percentage of SJPNL staff receiving performance incentives based on employee performance evaluation Baseline: Nil. Target: At least 50 percent. Target Date December 31, 2024.</p> <p>(iii) Females as percentage of total staff in various services of SJPNL Baseline: Nil. Target: At least 30 percent. Target Date December 31, 2024</p>



		headed SMEs for small O&M contracts	
3. (a) Himachal Pradesh has issued: (i) directives on corporate governance framework; and (ii) internal performance evaluation policy, for the SJPNL; and (b) the Board of Directors has authorized the SJPNL managing director to implement such framework and policy	Annual review of corporate governance completed by the Board of Directors	At least two annual reviews of performance scorecard of SJPNL completed by the Board of Directors	(i) Percentage of corrective actions taken by SJPNL based on recommendations of corporate governance review Baseline: Not applicable. Target: 90 per cent. Target Date December 31, 2024 (ii) Improved performance of SJPNL as measured by the annual performance scorecard rating Baseline: Not applicable. Target: Performance scorecard rating at least 3 on a scale of 5. Target Date: December 31, 2024
4. Himachal Pradesh has approved cost recovery, tariff, and subsidy policies for WSS services in Greater Shimla Area and the SMC has adopted these policies	SJPNL establishes WSS regulatory mechanism and applies cost recovery, tariff and subsidy policies in peri-urban areas of Greater Shimla Area	SJPNL applies cost recovery, tariff and subsidy policies concurrently with expansion in its geographical areas (Shimla satellite towns and other municipalities)	(i) Timely determination of annual tariffs and subsidies Baseline: No policy. Target: Annual tariffs and subsidies determined and applied by April 1 each year. Target Date: December 31, 2024 (ii) Volumetric billing of 24x7 customers Baseline: Nil. Target: 90 percent 24x7 customers. Target Date: December 31, 2024 (iii) Collection efficiency Baseline: 70 percent. Target 90 percent. Target Date: December 31, 2024 (iv) O&M cost recovery (water) (a) bulk and distribution Baseline: 21 percent; Target: At least 40 percent by December 31, 2024. (b) O&M cost recovery (distribution) Baseline: 100 percent Target: 150 percent by December 31, 2024 (c) O&M cost recovery (sewerage) Baseline: 30 percent Target: 100 percent by December 31, 2024



Policy Area B: Increasing Efficiency of WSS Operations

Prior Actions for DPL 1	Indicative Triggers for DPL 2	Indicative Triggers for DPL 3	Results Indicators (DPL 1, 2 and 3)
5. Himachal Pradesh has approved a policy to shift from infrastructure financing to performance-based service delivery orientation	SJPNL applies performance-based service delivery policy to peri urban areas	SJPNL expands services by applying performance-based service delivery policy to Shimla satellite towns and other municipalities	(i) Percentage of customers of the WSS Company serviced by private service provider(s) receiving continuous water supply and connected to sewage systems Baseline: Nil. Target: At least 70 percent. Target Date: by December 31, 2024
6. Himachal Pradesh has approved a policy to improve energy efficiency in WSS operations	SJPNL applies energy efficiency policy to determine tariffs and subsidies.	SJPNL applies energy efficiency policy for at least one annual revision of tariffs and subsidies	(i) Energy consumption of water production from existing sources Baseline: 7.69 kWh/m ³ Target: Less than 6.15 kWh/m ³ Target Date: December 31, 2024 (ii) Reduction in Non-Revenue Water Baseline: 50 percent; Target: 30 percent or less; Target Date: December 31, 2024

Policy Area C. Increasing Customer Orientation and Accountability

Prior Actions for DPL 1	Indicative Triggers for DPL 2	Indicative Triggers for DPL 3	Results Indicators (DPL 1, 2 and 3)
7. Himachal Pradesh has approved: (i) a policy on monitoring of WSS service performance; and (ii) a policy on WSS service grievance redressal mechanism	SJPNL implements M&E and grievance redressal policies with on-line access to WSS customers for grievance redressal and customer feedback	SJPNL carries out annual customer surveys (including feed-back from women and poor households)	(i) Annual reports on SJPNL performance, customer satisfaction, and citizen report cards published and disclosed Baseline: No reports. Target: Annual performance reports and citizen report cards published within six months of end financial year. Target Date: September 30, each year (ii) Percentage of WSS complaints redressed within the specified redressal period Baseline: Not available. Target: 80% by December 31, 2024



ANNEX 2: LETTER OF DEVELOPMENT POLICY

[Date]

The President

World Bank

[Address]

Dear Mr. Jim Kim,

You would be aware of the request that we had sent to the World Bank, through the Government of India (Department of Economic Affairs) for assistance in the improvement of Water Supply and Sewage service delivery in Shimla Area.

I write to you to share our Development Objectives for the water supply and sewage sector in Himachal Pradesh, starting with the Shimla Area. Shimla is the capital city of the State of Himachal Pradesh and the Greater Shimla Area is a primary economic engine for the State's growth.

One of our development goals is to provide essential services to all households at their doorsteps. The State has made commendable progress in providing electricity and toilets in all households. Providing reliable piped water supply and sewage services to all households is an equally important governance priority for us. The Government continues to allocate its budgetary resources to support improvements in water supply and sewage sector. Even while making resources available, we are also acutely aware that investments alone will not lead to achieving service delivery. The administrative and service delivery arrangements are outdated and hold us back achieving our service delivery objectives. There is no focus on financial sustainability and therefore the sector continuously relies on Government support. The Shimla Area especially faces an acute combination of inadequate infrastructure, lack of local water resources, weak capacity and poor cost recovery.

Background to the water supply situation in Greater Shimla Area

The Greater Shimla Area is home to approximately 200,000 people. Since it is a capital city and a popular tourist destination, another 160,000 visit the city daily for work, education and tourism during peak season. The existing water supply system has grown organically from a designed capacity of 60,000 people. The areas outside the Shimla city are witnessing high urbanization but have a water supply and sewage system designed to provide rural standards of supply. The city is unable to supply the required supply of 135 litres per capita per day to its residents and increased tourist flows aggravate this situation. At present, the city receives water supply for 1.5 hours daily or alternate days. The water losses are above 50 percent and the city recovers only 21 percent of the cost of operations and is dependent on Government subsidies. Apart from this the responsibility for supplying and distributing water in the city was divided between many departments. The mixed responsibility had led to issues of coordination, technical division and the persistent problems of possible discord. This is an important factor also responsible for unsatisfactory service delivery levels.

At the end of the year 2015 Shimla witnessed the outbreak of jaundice which resulted in fatalities. The cause of the epidemic was identified as contamination of one of the drinking water sources by the failure of an upstream sewage treatment plant. The Honorable High Court, Shimla, on its own motion took cognizance of jaundice outbreak and commanded the State Government "for creation of a post/statutory body, to be manned by a competent authority and members along with requisite staff in order to deal with entire water supply system of Shimla Town, also to deal with the entire water crisis relating to the State of Himachal Pradesh."

The Government of Himachal Pradesh constituted a Committee under the Chairmanship of Additional Chief Secretary (Health) to examine the constitution of such authority and different models being followed at other parts of the country, the structure and processes being adopted in Shimla city and to give recommendations



regarding constitution of such authority as needed.

The committee, after examining various options proposed that a separate, ring fenced, Greater Shimla Water Supply and Sewage Circle (GSWSSC) be created under the municipal corporation for delivery of all integrated services related to water supply and sewage disposal. The committee also recommended a stage by stage roadmap that included transforming this circle into a company after 1-2 years and addressing all issues related to WSS including infrastructure deficit, human resources, performance indicators, service delivery benchmarks, monitoring tools, enforceable contractual agreements and a customer orientation toolkit. This proposal was approved by the Government through Government Order (IPH-B(A)1-1/2016 dated 12th July 2016) and the Circle was created. This marked the articulation of a comprehensive Government policy towards WSS sector and especially for Greater Shimla Area, which went beyond asset creation and addressed institutional issues.

Since 2016, the GSWSSC has improved the WSS situation in the Greater Shimla Area and has stabilized the water supply operations. Water quality issues have been brought under control and it is being monitored independently now. Repairs and rehabilitation in the bulk water system has increased the bulk supply capacity to 45 mld from 39 mld. The sewage network in the city is being expanded and sewage treatment plants are being rehabilitated. GSWSSC also entered into a Water Operator Partnership with World WaterNet to benefit from professional support. With these measures the emergency of shortages and poor water quality has been stabilized, though the underlying constraints remain.

Key Objectives of Government's Reform Program

While the immediate crisis has been resolved and the situation has stabilized, the Government is aware of underlying constraints and that a narrow crisis handling approach is not sustainable. The GoHP is also aware that the issue is not merely inadequate infrastructure. This had been highlighted in the Water Policy of 2013 too but had not been operationalized in any part of Himachal Pradesh.

To systematically resolve the water crisis in the Shimla region, the GoHP has now decided to implement a medium term WSS plan, which is a comprehensive roadmap as per the Water Policy and the recommendations of the Committee. The plan would be implemented in the Greater Shimla Area to start with and will be extended to other municipalities in Himachal Pradesh thereafter.

The key feature of the medium-term plan is a stage by stage, comprehensive roadmap covering all aspects of WSS. The medium-term plan establishes WSS standards in Greater Shimla Area, covering service standards, operating efficiency standards and energy efficiency standards. These standards would be applied uniformly across Greater Shimla Area, irrespective of whether an area is characterized as urban or rural. These standards cover both water supply and sewerage and target universal coverage and full water quality and effluent quality compliance. GoHP will provide grants to meet the capital expenditure required to achieve the service standards. Further, under the medium term WSS plan, GoHP will focus on a) Improving governance, managerial and financial autonomy, b) Increasing efficiency of WSS operations and c) Increasing customer orientation and accountability.

Improving governance, managerial and financial autonomy

All WSS functions of policy making, regulation, asset ownership and service delivery were by and large under a departmental structure. While the desirable separation of powers was lacking, there was also undesirable fragmentation of service delivery responsibilities between various agencies. GoHP intends to correct this situation and separate WSS powers and integrate service delivery responsibility.

GoHP, along with SMC, has incorporated a WSS company, called Shimla Jal Prabandhan Nigam Limited (SJPNL). SMC has a shareholding of 51 percent in SJPNL. The Government of Himachal Pradesh has a shareholding of 49 percent of the company, representing the interests of the Gram Panchayats and other



regions of the State where the company may operate in future. The Shimla Municipal Corporation (SMC) has already delegated WSS responsibilities to the company under the Municipal Corporation Act.

GoHP has reviewed its experience with State Owned Enterprises in the electricity and tourism sectors and under the Smart City Mission. Based on this experience, GoHP has decided that to start with, the company would be governed by senior most officers of GoHP and would have two independent directors. Accordingly, the Chairperson of SJPNL is the Chief Secretary to the Government of Himachal Pradesh, reflecting the priority and importance given to SJPNL. The Board of Directors consists of senior representatives from GoHP and SMC. GoHP is in advanced stages of inducting two independent directors, one representing the interests of citizens/ civil society and the other a water and sewerage sector professional. The company will also enter into a partnership with a publicly owned global WSS utility. Under the partnership, WSS utility experts with international experience in utility turnaround will advise Managing Director cum Chief Executive Officer. GoHP and SMC have provided full operational and financial autonomy to the Board of Directors and the Articles of Association of the company already reflect this. The composition of the Board of Directors ensures governance and autonomy for the WSS company. Given the unprecedented reforms being taken up, this structure, to start with, would be most acceptable.

GoHP is committed to build the human resource capacity of SJPNL. The WSS operations require high technical experience with familiarity of operating in challenging hilly terrain with high ecological sensitivity and related policy and institutional aspects. This experience rests largely with the Engineers in Government in WSS sector in Himachal and therefore a senior Engineer from the Irrigation and Public Health Department, with experience in similar challenging terrain, has already been appointed as the Managing Director and CEO of SJPNL and will also serve as a Director in the Board of SJPNL. The Board has also framed a human resource policy, organization structure and staffing requirements. The company will hire senior management positions for customer service, contract management and finance from the market. SJPNL has already hired a finance manager and a company secretary from the market. SJPNL needs staff familiar with the local situation and who are trusted by the consumers and stakeholders. Therefore, during the initial years, SJPNL would rely on staff seconded from SMC and other departments of GoHP and will gradually increase hiring of staff from the market. SJPNL has the freedom to hire from the market and fix compensation. The Board has approved internal delegation of powers within the company. SJPNL will also establish a system of performance incentives for its staff based on practices in the electricity and transport sectors. The incentives would be introduced after service levels are improved in Greater Shimla Area and public confidence in SJPNL improves.

To ensure good governance, SJPNL has already framed a corporate governance policy, adopting legal requirements as well as voluntarily adopting good practices. SJPNL has also formalized internal performance evaluation policy and internal performance targets. SJPNL's performance will be evaluated annually and this will ensure good corporate governance and performance orientation within SJPNL.

WSS operations in Greater Shimla Area recover only 21 percent of the operations and maintenance costs. Given the high cost of bulk water in Shimla, which will be pumped over an elevation of 1400-1600 meters, full O&M cost recovery is unlikely in the medium term. GoHP has finalized a cost recovery roadmap that provides for gradual improvements in O & M cost recovery, reaching 66 percent by 2033-34, with interim milestones of 100 percent recovery of water distribution and sewage costs (excluding cost of bulk water) by 2021-22. To ensure SJPNL is financially sustainable, GoHP has committed to provide O&M subsidies up to Rs 120 crores per year (17.4 million USD) which would be sufficient to meet the cost recovery gap till the year 2030. GoHP and SMC have already approved an increasing block volumetric tariff with automatic annual escalations. Formal stakeholder consultations have confirmed that all sections of consumers, including low income households, express high willingness to pay the proposed tariff and that they consider the volumetric tariff structure equitable. The tariff structure reduces the monthly bill of poor customers by 50 percent



compared to the current flat monthly tariff. The tariff structure will also meet the cost recovery roadmap of GoHP. To ensure objectivity, GoHP has finalized the regulatory mechanism for tariff revisions and subsidy calculations. The Board of Directors will recommend tariff revisions and subsidy estimates to GoHP based on the cost recovery roadmap of GoHP taking into consideration formal opinions provided by the independent directors. A formal cost recovery roadmap, tariff structure with preapproved periodic revisions and the assured O&M subsidy ensure financial sustainability of operations. The regulatory mechanism of the Board of Directors recommending tariff revisions and subsidies to GoHP also ensures objectivity of these decisions.

Increasing efficiency of WSS operations

GoHP is conscious that the past practice of financing infrastructure has not resulted in service delivery to customers. Therefore, SJPNL will enter into performance-based service contracts with operators who have the necessary expertise in providing 24x7 supply to customers and in energy efficiency in WSS operations. World Bank organized a global Webex conference where international WSS experts and operators shared experiences of performance-based service contracts. Based on the learnings from this conference and the priorities in Shimla, GoHP and SJPNL have identified three performance-based service contracts and the principles that the performance-based service contracts should follow. Since energy costs in WSS are high in Greater Shimla, SJPNL has completed an energy efficiency study and has identified improvements possible. Based on the findings GoHP has specified a 20 percent target in reduction of energy consumption. Through these measures, GoHP will achieve a departure from conventional infrastructure financing approach to service delivery approach using performance-based service contracts.

Increasing customer orientation and accountability

GoHP already has a legal framework for customer accountability under the Himachal Pradesh Public Services Accountability Act (2011). In line this Act and based on the findings of a detailed Poverty and Social Impact Analysis, SJPNL has developed mechanisms for customer orientation and accountability. SJPNL will establish modern customer service centres and develop a new connection policy that simplifies procedures for new connections. SJPNL has also developed special provisions for poor and vulnerable, including for providing shared or individual connections, ease of grievance registration, payment modalities, tracking of service standards, grievance redressal and focused outreach to the poor and vulnerable. The tariff structure already has special provision for lifeline consumption and SJPNL will track and limit the share of monthly expenditure of the poor on WSS. SJPNL has finalized a communication strategy to engage with various stakeholders. SJPNL has also developed a grievance redressal mechanism.

SJPNL will also establish a comprehensive database, IT systems and performance evaluation systems to monitor and disclose disaggregated performance information (with emphasis on service delivery to poor and vulnerable) to all stakeholders and the public. It will increase information access to SMC, the poor and vulnerable citizens. The Board of SJPNL will carry out systematic evaluation of SJPNL's performance, corporate governance, customer grievance redressal and staff satisfaction. The Board will also carry out annual customer survey and disclose corrective actions. The independent directors will assist the Board in these evaluations. SJPNL will publish the results of this evaluation and the corrective actions taken.

SMC and SJPNL will be taking on roles that they haven't performed before. It is important to build the capacity of SMC and SJPNL so that they perform their roles as envisaged as well as to ensure that SJPNL's autonomy is not diluted due to micro management or over regulation by stakeholders. GoHP will organize capacity building support for SMC through a WSS expert, and for SJPNL through an institutional partnership with an international publicly owned utility.

The GoHP and SMC have issued Government notifications and approvals as follows:

Medium-term Program and formation of SJPNL:



- (a) Government notification of Medium-term WSS Program, with i) role and responsibilities of SJPNL, ii) WSS service standards including energy efficiency standards, institutional and policy targets, iii) GoHP grants for capital investment, iv) principles of performance-based contracts, v) cost recovery, tariff and subsidy policy, regulatory mechanism, and vi) customer orientation and accountability (2018)
- (b) Cabinet resolution for formation of SJPNL (2018)
- (c) SMC resolution for formation of SJPNL (2018)
- (d) Delegation of WSS functions by SMC to SJPNL (2018)
- (e) Approved tariff structure (2018) and also the tariff, cost recovery and subsidy policy (2018)

On structure and policies for SJPNL:

- (a) Memorandum of Association
- (b) Articles of Association
- (c) Organisation Structure and Human resource (HR) Policy
- (d) Corporate Governance Framework
- (e) Internal performance evaluation policy
- (f) Monitoring and Evaluation and Grievance Redressal Mechanism
- (g) Outline Business Plan

The Board of Directors of SJPNL will implement the approved policies and have already authorized the Managing Director cum Chief Executive Officer of SJPNL to take the necessary actions for implementation.

The medium-term plan of WSS has acceptability across a wide spectrum of stakeholders. The plan builds on the Water Policy of 2013. It is consistent with the observations and instruction of the High Court. The plan adopts the stage by stage roadmap recommended by the GoHP committee. The concerned departments of GoHP and SMC are represented in SJPNL. The interests of all existing employees of SJPNL, seconded from SMC and IPH are fully protected. The proposed cost recovery roadmap and subsidy policy adequately protect customers from rapid increase in tariff and at the same time ensures sustainability of SJPNL. Low income households have special provisions for access as well as lifeline consumption. Given the shortage of water in Shimla, all customer groups are in favour of the medium-term plan and stakeholder consultations have confirmed this.

The medium-term plan has been prepared carefully over nearly three years. The Committee itself had wide consultations including with Ministry of Urban Development, GoI, World Bank and other development agencies. SMC and GoHP departments had signed a Memorandum of Understanding in 2017 committing themselves to several of the steps included in the medium-term plan. A Technical Monitoring Group headed by the Chief Secretary routinely reviewed steps and decisions leading up to the medium-term plan. An institutions options study commissioned by World Bank reviewed various options of WSS utility structure, PPP, financial sustainability, regulatory mechanisms etc. A global webex conference informed GoHP on several International and Indian examples in performance-based contracts. A poverty and social impact assessment consulted several stakeholder groups. Reforms such as setting up of SJPNL, volumetric tariff, efficient water distribution have been discussed widely in the local media. The institutional options have been widely discussed by the elected representatives of SMC.

The medium-term plan is already under implementation. To demonstrate its commitment, GoHP has already initiated legal actions for implementation. The WSS company is already incorporated and the Board of Directors, chaired by the Chief Secretary is already operational. SMC has already devolved WSS responsibilities to the WSS company. The tariff structure has been approved by SMC and GoHP. Long term subsidies have been committed by GoHP. Human resources policy for SJPNL has been approved. SJPNL is in advanced stage of preparation of performance-based contracts. Therefore, critical reforms have either been implemented or in advanced stage of preparation, signaling the seriousness of the Government.



The package of multiple reforms may be seen by many as challenging and without precedence in the Indian urban water supply sector. At the same time, GoHP views it as an assurance of progress. The medium-term program does not depend on a single action for its success, such as capital investment, tariff revision, corporatization or PPPs. The package of reforms, each with its own distinct impact, and also meaningfully coming together as a comprehensive roadmap, will ensure steady progress which has already been witnessed.

In summary, I would like to reiterate that the Government intends to improve all aspects of WSS, governance, service delivery and financial sustainability. Over the past two years, the Government and SMC have already taken many steps in this direction and have mobilized support of diverse stakeholders. With a corporate structure, multi-year volumetric tariff, multi-year committed subsidies and capital investments in advance stage of preparation, SJPNL already has a firmer legal and institutional foundation than most other WSS operations in India. We are committed to continuously build the capacity of SJPNL as it expands its operations and engages with local bodies in other regions of the State. We are committed to demonstrate to the citizens of Greater Shimla Area, and to the rest of the State, quality services that are financially sustainable and are managed by an accountable WSS institution responsive to its citizens.

Chief Secretary,
Government of Himachal Pradesh
October 2018.



ANNEX 3: FUND RELATIONS ANNEX

IMF Article IV Consultation with India (August 7, 2018)¹

Stability-oriented macroeconomic policies and progress on structural reforms continue to bear fruit. Following disruptions related to the November 2016 currency exchange initiative and the July 2017 goods and service tax (GST) rollout, growth slowed to 6.7 percent in FY2017/18, but a recovery is underway led by an investment pickup. Headline inflation averaged 3.6 percent in FY2017/18, a 17-year low, reflecting low food prices on a return to normal monsoon rainfall, agriculture sector reforms, subdued domestic demand, and currency appreciation. With demand recovering and rising oil prices, medium-term headline inflation has risen to 4.9 percent in May 2018, above the mid-point of the Reserve Bank of India (RBI)'s headline inflation target band of 4 percent \pm 2 percent. External vulnerabilities remain contained but have risen. The current account deficit (CAD) widened to 1.9 percent of GDP in FY2017/18, on rising imports and oil prices. Gross international reserves rose to US\$424.5 billion (about 8 months of prospective imports of goods and services) at the end of March 2018 but declined to US\$407.8 billion in the third week of June 2018. Persistently-high household inflation expectations and large general government fiscal deficits and debt remain key macroeconomic challenges. Systemic macro-financial risks persist, as the weak credit cycle could impair growth and the sovereign-bank nexus has created vulnerabilities.

The near-term macroeconomic outlook is broadly favorable. Growth is forecast to rise to 7.3 percent in FY2018/19 and 7.5 percent in FY2019/20, on strengthening investment and robust private consumption. Headline inflation is projected to rise to 5.2 percent in FY2018/19, as demand conditions tighten, along with the recent depreciation of the rupee and higher oil prices, housing rent allowances, and agricultural minimum support prices. The current account deficit is projected to widen further to 2.6 percent of GDP on rising oil prices and strong demand for imports, offset by a slight increase in remittances. As inflation pressures have risen, monetary policy was tightened in early June 2018. Fiscal consolidation is expected to resume in FY2018/19, with the FY2018/19 Union Budget deficit target of 3.3 percent of GDP (equivalent to 3.6 percent of GDP in IMF terms). Financial sector reforms have been undertaken to address the twin balance sheet problems, as well as to revive bank credit and enhance the efficiency of credit provision by accelerating the cleanup of bank and corporate balance sheets. Over the medium-term, the outlook will continue to improve with growth expected to rise to 7½ percent, and macro-financial and structural policies are priorities to help boost inclusive growth and harness the demographic dividend.

Economic risks are tilted to the downside. On the external side, risks include a further increase in international oil prices, tighter global financial conditions, a retreat from cross-border integration including spillover risks from a global trade conflict and rising regional geopolitical tensions. Domestic risks pertain to tax revenue shortfalls related to continued GST implementation issues and delays in addressing the twin balance sheet problems and other structural reforms.

¹ further details: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>



ANNEX 4: ENVIRONMENT AND POVERTY/SOCIAL ANALYSIS

Prior Actions	Significant positive or negative environment effects	Significant poverty, social or distributional effects positive or negative
Operation Pillar A: Objective - Improving Governance, Managerial and Financial Autonomy		
1. Shimla Municipal Corporation (SMC) and Himachal Pradesh have incorporated the Shimla Jal Prabandhan Nigam Limited (SJPNL) as a jointly owned, autonomous WSS company.	Positive environmental effects as water provision and treatment has the potential for an integrated and sustained management through the creation of a specialized, focal entity.	Integration of responsibilities under a unified WSS company is expected to have a positive impact on all consumers including vulnerable households through better service delivery mechanisms. The proposed single point responsibility structure will mitigate the erstwhile health and hygiene risks, such as outbreaks of jaundice, which disproportionately affect the poor and the vulnerable.
2. Himachal Pradesh has approved the organizational structure and human resource policy of the SJPNL and the Board of Directors has authorized the SJPNL Managing Director to implement the approved organizational structure and human resource policy.	Positive environmental effects as the organizational structure includes environmental expertise with explicit roles and responsibilities. The new environmental management arrangements has potential to address negative or residual downstream effects of the existing and future infrastructure.	Social effects are expected to be positive as the new entity shall focus on consumer service and grievance redressal.
3. (a) Himachal Pradesh has issued: (i) directives on corporate governance framework; and (ii) internal performance evaluation policy, for the SJPNL; and (b) the Board of Directors has authorized the SJPNL managing director to implement such framework and policy.	Positive environmental effects as the implementation of the Framework directives will lead to better water management.	Adverse poverty and social impacts are not expected.
4. Himachal Pradesh has approved cost recovery, tariff, and subsidy policies for WSS services in Greater	No direct environmental effects.	This action will have significant positive effects. The GoHP's approval of tariff and subsidy policies are consistent with cost-recovery road-map which



Shimla Area and the SMC has adopted these policies.		includes volumetric tariff design with a lifeline consumption block. Also, the monthly bill of poor households shall reduce by 50 percent as compared to the current flat monthly tariff.
Operation Pillar B: Objective – Increasing Efficiency of WSS Operations		
5.Himachal Pradesh has approved a policy to shift from infrastructure financing to performance-based service delivery orientation.	Positive environmental effects, as the performance-based approach has the potential to improve efficiency and effectiveness in water management.	Improvements in supply quality will affect all households, but poorer households will benefit more because they will potentially incur less costs on coping with rationing and supply intermittency as well as on treating water prior to consumption.
6.Himachal Pradesh has approved a policy to improve energy efficiency in WSS operations.	Positive environmental effects, as driving energy-efficiency at a policy level will bring about a positive contribution to reducing carbon emissions.	Adverse poverty and social impacts are not expected.
Operation Pillar C: Objective - Improving Financial and Operational Performance in the WSS Sector		
7. Himachal Pradesh has approved: (i) a policy on monitoring of WSS service performance; and (ii) a policy on WSS service grievance redressal mechanism.	Positive environmental effects as such a policy will lead to establishing a mechanism that will include environmental concerns if any and measures for addressing the concerns.	Significantly positive impacts for all consumers as the prior action will provide for a robust Grievance redressal mechanism with multiple avenues for customers to record and seek redressal of grievances, while also having special provisions for the poor and vulnerable sections (women, scheduled castes and scheduled tribes). Also, annual customer surveys will be conducted to assess satisfaction with service delivery and women involvement, particularly female households from low income groups.



ANNEX 5: SUMMARY WSS MEDIUM-TERM PROGRAM

A. Key areas of focus

1. The key areas of focus of the WSS Medium-term Program are as follows:
 - (i) The Greater Shimla Area comprising the capital city of Shimla and its peri-urban areas is the economic and tourist hub of Himachal Pradesh. The Greater Shimla Area had a population of 205,000 in 2011 which has increased to 227,978 in 2018. In addition, more than 66,000 tourists visit during peak summer weekends with 3.6 million tourists visiting Shimla annually.
 - (ii) More than 100 years old infrastructure along with fragmented institutional responsibilities has triggered periodic water supply and public health crisis in Shimla during the last decade. Incremental approach has managed each crisis, but the system is very fragile as illustrated by the recent bulk water supply crisis compounding the inefficient distribution. The system recovers only 21 percent of operation and maintenance costs.
 - (iii) As a follow-up to the series of jaundice crisis and based on the recommendations of a specially designated GoHP committee, the GoHP and SMC have decided to implement a comprehensive stage-by-stage roadmap for improving WSS services through its Medium-term Program (2018-25). The Program will address institutional development and will target universal service delivery, water and effluent quality compliance, 24x7 water supply, professional organization with single point responsibility, infrastructure upgrading, operating and energy efficiency, cost recovery, subsidies and customer accountability. In latter stages this sector wide framework will be applied to other regions in Himachal Pradesh.
 - (iv) GoHP has specified performance standards for service delivery, operating efficiency targets and energy efficiency targets. A Capital Investment Plan has estimated that about INR 986 crores (USD 135 million) will be required to meet these service delivery targets, with investments in bulk water supply, expansion of sewage network and rehabilitation of distribution system to achieve 24x7 water supply. Since the WSS operations and SMC lack sufficient finances, the GoHP will provide capital grants to fully finance the infrastructure investments.
 - (v) SJPNL, the WSS Company, has been incorporated and has been devolved WSS responsibilities under the Himachal Pradesh Municipal Corporation Act. The GoHP and SMC shareholding is in the ratio 49:51 in SJPNL. The GoHP and SMC have provided full managerial and financial autonomy to SJPNL. The Board of Directors include eight representatives from GoHP and SMC and is chaired by the Chief Secretary of the GoHP. In addition, the company will induct two independent directors. The Managing Director-cum-Chief Executive Officer of the company has been appointed.
 - (vi) The SJPNL has developed an organization structure and HR policy which provides for professional utility experts to support SJPNL, autonomy for hiring, and performance incentives for staff. The SJPNL has developed corporate governance framework, internal performance standards and incentives for SJPNL, and grievance redressal mechanism. The independent directors will support the Board of Directors in conducting annual performance reviews and suggest corrective actions to be taken by SJPNL.
 - (vii) The Medium-term Program entails a shift in orientation from asset creation to service delivery. The experience of providing 24x7 water service delivery does not exist either with SJPNL or GoHP. Therefore, SJPNL will enter into performance-based contracts with service providers. Three separate performance-based contracts with service providers are envisaged: a) bulk water supply from Sutlej river and existing sources, b) water distribution on 24x7 basis and extension of sewerage system, and c) sewage collection and treatment in peri-urban areas.
 - (viii) The tariff structure effective from April 1, 2018, introduces increasing block volumetric tariff along with universal metering. This encourages equity, demand management and affordability for the poor.



The monthly volumetric water bill for poor customers will reduce by 50 percent as compared to the current monthly flat tariff. The tariff structure allows automatic yearly escalations by 10 percent each year till 2024-25 and 8 percent each year thereafter, as well as intra-year adjustments to reflect increases in electricity tariff and salaries.

- (ix) Based on financial projections, the GoHP has also set the cost recovery targets. The O&M cost recovery will improve from 21 percent in FY 2017-18 to 66 percent in FY 2033-34. The company will achieve 100 percent recovery of O&M costs for water distribution and sewage collection and treatment (excluding bulk water costs) in the year FY 2021-22. Non-domestic customers will cross subsidize domestic customers from FY2024-25 onwards.
- (x) GoHP has committed operations and maintenance subsidy up to INR120 crores (USD 16.4 million) a year to address high energy costs, which is sufficient to meet the cost recovery gaps. As SJPNL expands water supply coverage and sewerage operations and increases bulk water supply, the subsidy requirements will increase from INR 91 Crores (USD 12.5million) in FY 2017-18 to 128 Crores (USD 17.5 million) in FY 2033-34. In addition to this committed subsidy, the GoHP and SMC will also provide additional performance linked incentives to SJPNL.
- (xi) The cost recoveries are highly sensitive to energy consumption and non-revenue water. The SJPNL has developed an energy efficiency program that has identified electrical and hydraulic improvements that will reduce energy consumption in existing bulk water supply and wastewater treatment plants. Energy consumption per unit of bulk water produced from existing sources is expected to decrease by 20 percent by FY 2022-23.
- (xii) Based on review of international and Indian experiences of economic regulation, the GoHP has finalized the regulatory mechanism. The Board of Directors of SJPNL will recommend tariffs required to meet GoHP's cost recovery targets as well as the annual subsidy required. The independent directors will provide written opinions to the Board of Directors on tariff revisions and/or annual subsidy requirements. GoHP will approve tariff for domestic customers and the subsidies required to bridge the cost recovery gap. The SMC and GoHP will provide additional subsidies if they approve tariff less than that recommended by the Board of Directors.
- (xiii) SJPNL has developed service standards and time commitments for improving WSS services in Greater Shimla Area. The SJPNL will also establish a comprehensive monitoring, evaluation and disclosure framework, using global WSS benchmarks and GoI's Service Level Benchmarks. The SJPNL will implement a grievance redressal mechanism and social outreach and annual customer satisfaction surveys.
- (xiv) The Medium-term Program also has a strong focus on building capacities of SMC and SJPNL to enable them perform their roles and responsibilities. SMC would receive support to build its capacity to monitor progress of WSS medium term program. SJPNL will enter into a partnership with a global publicly owned WSS utility which will advise the Managing Director cum CEO.

B. Context

2. ***Water Supply and Sewerage Institutions were fragmented:*** In the Greater Shimla region, prior to the year 2016, WSS services were being provided by three units and the responsibilities were fragmented between several agencies including IPH, UDD, and SMC.



3. **WSS services lag standards and are unreliable:** Service delivery levels in Greater Shimla Area are lagging the standards, both in Shimla city and in peri-urban areas. The service delivery status in Shimla city is summarized in

Table 1. WSS services in peri-urban areas are designed to provide rural standards of supply even though they have an urban character and are witnessing high urbanization. The

Table 1 – Status of WSS service delivery in Shimla City

Parameter	Benchmark	Status (September 2018)
Coverage	100%	98% (with shared connections)
Per capita supply	135 lpcd	110 lpcd
Extent of metering	100%	80%
Continuity of water supply	24x7	1.5 to 2 hours very alternate day
Sewerage connections	100%	60-70% partial and shared connections
Water Quality	100%	100%, but with major water quality failure and public health incident in 2015
Non-Revenue Water	20%	About 50%
Efficiency of redressal of complaints	80%	80%
Cost recovery	100%	21%
Collection efficiency	100%	90%

peri-urban areas were planned for per capita water supply of 70 liters per day as against the urban standard of 135 liters per capita per day. The peri-urban areas do not have any sewerage facilities.

4. **GoHP has taken up several policy measures to respond to the health and water supply crisis:** The GoHP constituted a special Committee under the Chairmanship of Additional Chief Secretary (Health) to examine the constitution of such authority. The Committee after extensive consultations and deliberations made the following recommendations regarding Shimla: A ring fenced WSS Circle under SMC be made responsible for water supply and sewage function for the entire Greater Shimla Area. There should be clear performance indicators, service delivery benchmarks, monitoring tools, enforceable contractual agreements and a customer orientation toolkit. Infrastructure gaps need to be closed and human resource augmented. Besides, the issue is of improving service delivery and not just asset creation.

5. **Also, several short and medium-term operational measures are on-going:** Water quality issues have been brought under control and are being monitored independently. Repairs and rehabilitation in the bulk water system has increased the bulk supply capacity to 45 mld from 39 mld. The sewage network in the city is being expanded and sewage treatment plants are being rehabilitated. Through these measures GSWSSC has stabilized the water supply operations. It also prepared a capital investment plan to upgrade infrastructure for a sustainable solution. The first step in the institutional roadmap was to bring all WSS responsibilities in Greater Shimla Area under a single authority. This was done through the creation of the GSWSSC¹⁴. The IPH, UDD and SMC signed a Memorandum of Understanding to formalize the setting up of the Circle.

6. **The fragility of the system requires a longer-term outlook:** While the crisis triggered by the jaundice outbreak has been managed and the system has been stabilized, the overall WSS situation in Shimla continues to be fragile. Bulk water availability continues to be a major concern. Snowfall in the winter of 2017-18 was below normal at the sources. This triggered water shortages in May 2018 coinciding with the peak tourist season. Daily supply reduced to 22 MLD and the supply crisis was covered widely in the national and international media. In addition to the hardships faced by residents of Shimla, the crisis and the negative publicity also adversely affected tourist inflows in the peak season.

7. **Growing concern for addressing challenges in bulk supply:** While additional bulk water can be

¹⁴ Government Notification (IPH-B (A) 1-1/2016 dated 12th July 2016), Annexure A3



brought from Sutlej, it will have to be pumped over an elevation of 1600 metres and will be one of the most expensive water supply systems in India. Given the high cost of pumping, the bulk water needs to be distributed efficiently with minimal losses.

8. ***Need for comprehensive institutional and policy reforms:*** The underlying reasons for poor performance identified by the committee (such as lack of performance benchmarks, staff capacity) are yet to be addressed. In addition to setting up the Circle, the recommendations of the Committee in the step by step roadmap need to be implemented. The Circle depends on IPH for its staff, but IPH itself has inadequate experience in implementing the 24x7 distribution system. Other than water quality, no performance indicators are being regularly monitored. WSS operations in Shimla are in the state of poor financials combined with high investment needs to improve WSS services. O&M cost recovery for water supply in SMC area alone is only 21 percent; projected capital investment requirements are more than thirty times the annual user charges being collected.

9. ***GoHP and SMC have started implementing the roadmap recommended by the Committee for improving WSS services in Greater Shimla Area.*** The road-map addresses various issues identified by the Committee, such as governance, ownership, infrastructure gap, funding deficit, lack of skilled and professional manpower, incentives linked to performance benchmarks, third party monitoring and cost recovery, etc. These issues are even more relevant for Shimla, since bulk water is expensive and there is no alternative water supply if the water crisis were to recur. The WSS Company has been set up with devolved responsibilities and clarity on medium-term program, targets, roles and responsibilities. The volumetric tariffs have been approved and are being implemented. The capital investment plan and subsidies have been identified. The energy efficiency improvement targets have been clarified. The PPP service contracts for bulk water and WSS distribution are in advanced stage of preparation.

C. GoHP's vision and milestones

10. ***The GoHP and SMC envision the following for WSS sector:***

- Right of an individual for potable water
- Universal coverage of water and sewage to every household
- 24x7 supply of water
- Promoting public health and environment
- Accountability and responsiveness to citizens
- Decentralized service delivery through autonomous and professional institutions

11. ***Stage by stage, programmatic approach:*** GoHP will follow a systematic, stage by stage approach to attain this vision through a Medium-term WSS Program, which is consistent with and evolves from past policies such as the Water Policy of 2013. In the first stage of the Program, GoHP, in partnership with SMC will implement this Program in the Greater Shimla Area, which is a priority economic hub for the State. In the second and third stages, GoHP would:

- Expand these principles to other areas of Himachal Pradesh
- Expand the service area and continue professionalization of the WSS company
- Attract commercial finance to augment public finance resources
- Implement performance incentives for staff



D. Targets and key features of WSS Program

12. **Service Delivery Targets for Medium-term Program:** GoHP targets for WSS services are summarized below.

Table 2 - Targets for the Medium-term Program¹⁵

S.No	Service Delivery Standard	Target	Date of Completion
1	Continuous pressurized 24x7 water supply	95%	March 2024
2	Non-Revenue Water	30%	March 2024
3	Water supply Coverage	100%	March 2024
4	Volumetric Billing	100% customers	March 2020
5	Collection efficiency	98%	March 2024
6	Consumer Grievance Redressal	80%	March 2020
7	Coverage of Sewerage Network	100%	March 2024
8	Energy Efficiency measures – Reduction of energy consumption in bulk water production	20%	March 2025
9	O&M Cost Recovery (Water Distribution Only)	150%	March 2024
10	O&M Cost Recovery (Sewerage)	100%	March 2024

13. **Population Targets for Greater Shimla Area:** The specific targets for improving WSS services in Greater Shimla Area are given below.

Table 3 - Baseline and target Population

Specific Areas	Baseline population: continuous pressurized piped water supply (Sep 2018)	Target: continuous pressurized piped water supply (Dec 2024)	Baseline population: access to improved Sewerage Connections (Sep 2018)	Target: access to improved Sewerage Connections (Dec 2024)
Shimla city	0	0.2 million	0.17 million	0.2 million
Peri-Urban areas: Shoghi, Kufri, Ghanahatti	0	0.04 million	0	0.01 million
Satellite townships in additional planning area	0	0.04 million	0	0
Annual tourist flow	0	3.8 million	3.6 million	3.8 million
Total	0	4.08 million	3.77 million	4.01 million

14. **Devolving responsibilities to an autonomous WSS Company:** GoHP (49 percent) and SMC (51 percent) have already incorporated a jointly owned company under Companies Act, 2013 called Shimla Jal Prabandhan Nigam Limited (SJPNL). Under the Himachal Pradesh Municipal Corporation Act, GoHP and SMC have devolved WSS responsibilities, including managerial, operational and financial autonomy to SJPNL. The WSS responsibilities in peri urban areas will be transferred to SJPNL by the GoHP and the gram panchayats and satellite towns, once the additional bulk water is available. GSWSSC ceases to exist and has been merged into SJPNL.

15. **Improving Governance, Managerial and Financial autonomy:** Based on a review of experience in setting up of State Owned Enterprises in tourism and electricity sectors and under Smart City Mission, the GoHP has decided to constitute a Board of Directors with senior most officers of the GoHP and devolve full operational and financial powers to SJPNL. The milestones and organizational structure of SJPNL are provided below.

¹⁵ Excerpt. Full list is provided as part of Medium-term Program Document of GoHP.

Milestones for the Medium Term Program

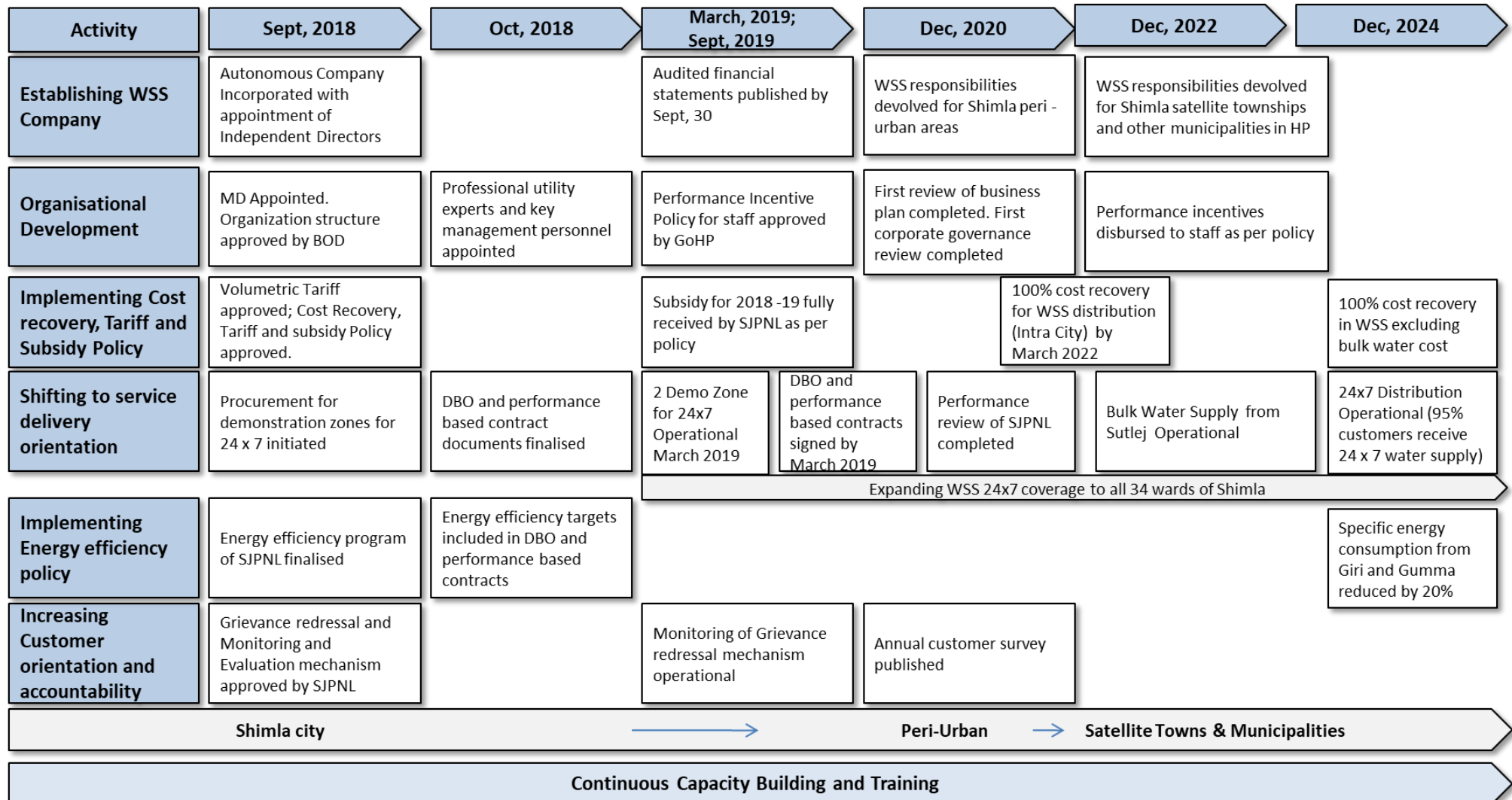
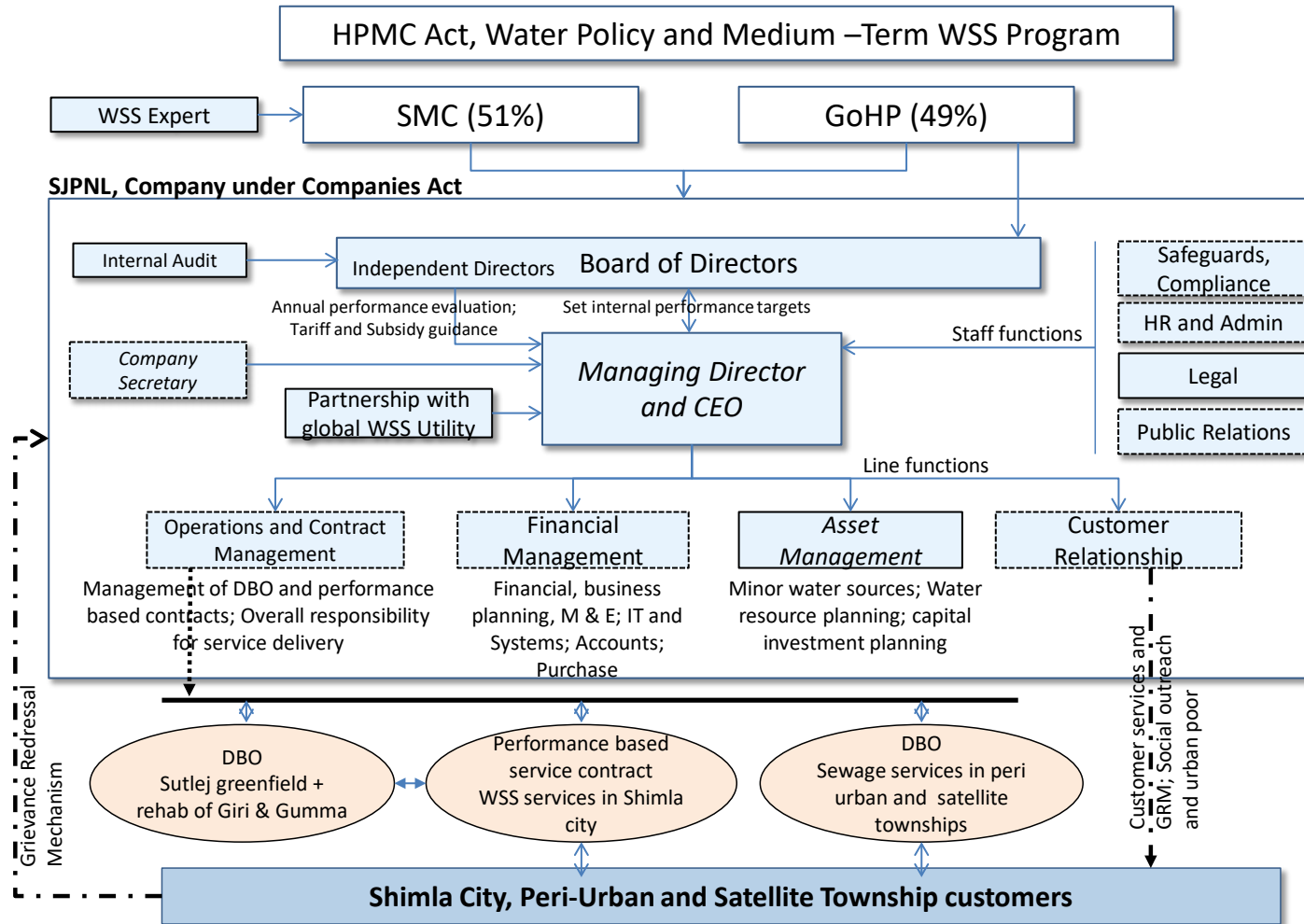


Figure 1 – Organization Structure of SJPNL





Organizational Structure and Responsibilities

- 1) WSS operations in Greater Shimla will be governed by the Himachal Pradesh Municipal Corporation Act (HPMCA), Water Policy 2013 and the Medium-term WSS Program for Greater Shimla (2018), providing managerial, financial and operational autonomy to the newly formed WSS Company, SJPNL.
- 2) GoHP (49 percent) and SMC (51 percent) have incorporated a jointly owned company under Companies Act, 2013 which has been devolved the responsibility for WSS management in Greater Shimla Area. The company will follow the WSS Medium-term Program of GoHP and SMC, for overall service standards, targets and commitments for service delivery.
- 3) Board of Directors have been appointed from SMC and GoHP. Independent Directors will be appointed from the industry/ market.
- 4) Board of Directors will frame internal performance targets, approve internal delegation, approve company level policies such as HR policy and corporate governance framework and will carry out periodic performance reviews.
- 5) Independent Directors in the Board will carry out annual performance reviews, guidance on tariff and subsidies based on approved GoHP policies for recommendation to the Board.
- 6) The first MD cum CEO has been appointed by GoHP. Subsequent MD cum CEO will be appointed by the Board of Directors, SJPNL and GoHP, competitively through the market for a fixed tenure of at least two years.
- 7) SJPNL will enter into a partnership with a global WSS utility which will provide professional utility experts to advise MD cum CEO.
- 8) SJPNL has developed its organization structure including a HR policy for secondment and transfer and open market recruitment for contract based positions. Performance-based incentive policy for SJPNL employees is under consideration by SMC and GoHP.
- 9) SJPNL is preparing performance-based contracts for service delivery as follows:
 - Design-Build-Operate contract for the new bulk water supply program from Sutlej and for rehabilitation of select existing bulk supply facilities
 - Water and sewage management in Shimla city
 - Sewage management in peri-urban and satellite areas
- 10) SJPNL staff would manage small existing bulk facilities and expansion of water services to peri-urban areas when they are taken over by SJPNL
- 11) GoHP would provide assured O&M subsidies to the company and performance linked incentives
- 12) SJPNL has designed a Grievance Redressal Mechanism as per SMC and GoHP policies and Himachal Pradesh Public Services Guarantee Act



16. **Full Autonomy to the Board of Directors:** SJPNL would have full managerial, financial and operational autonomy for WSS services. It would be governed by a Board of Directors which would consist of representatives from the SMC and GoHP as listed below. The Board of Directors of SJPNL will also include at least two independent directors, one representing the interests of citizens/ civil society and the other a water and sanitation sector professional. The Articles of Association provide full autonomy to the Board of Directors. The Board of Directors of SJPNL would include:

- 1) Chairperson and Director - Chief Secretary, GoHP
- 2) Director - Secretary (Urban Development, GoHP)
- 3) Director - Secretary (Finance, GoHP)
- 4) Director - Secretary, IPH, GoHP
- 5) Director - Mayor, SMC
- 6) Director - Deputy Mayor, SMC
- 7) Director - Commissioner, SMC
- 8) MD cum CEO - Appointed by Board of Directors and GoHP
- 9) Independent Director - Representing citizens/ civil society, appointed by Board of Directors
- 10) Independent Director - WSS professional, appointed by Board of Directors

17. The Board of Directors of SJPNL will develop the Board level policies and procedures to operationalize the GoHP policies and vision, including a) year-wise internal performance targets for SJPNL, based on the WSS service standards for Greater Shimla, b) internal delegation of powers and c) Corporate Governance Policy. The Board of Directors will establish the grievance redressal mechanism and review the business plan prepared by the management. The Managing Director cum Chief Executive Officer of SJPNL would be a water sector professional recommended by the Board of Directors, appointed by GoHP.

18. SJPNL has developed a human resources policy detailing the organization structure, list of staff required, deputation modalities, hiring through open market, compensation, performance evaluation and incentive system, etc., which has been approved by the Board of Directors, and thereafter by GoHP. SJPNL has the freedom to hire staff from market, fix remuneration, and assign responsibilities, as provided in the approved Human Resources Policy. Experienced staff from SMC, the Irrigation and Public Health, and other departments of the GoHP could be seconded to the company with a minimum tenure. In further stages of the Program the Board of Directors will develop performance incentives for the staff taking into consideration similar initiatives in other sectors. SJPNL will also hire female staff in various services.

19. Medium-term capital investment planning to meet service delivery standards:

A medium-term capital investment plan has been prepared for Greater Shimla Area for INR 986 Crores (USD 135 million) to meet GoHP and SMC standards of service delivery envisaged in the Program.

Table 4 – Capital Investment Plan

	Item	Cost		Expected Improvement on Performance Standards	
		INR Cr	USD million	Service Delivery Standards	Efficiency Standards
1	Sutlej 75 MLD Bulk water supply, Rehabilitation of Giri and Gumma	366	50	Per capita supply of water to 135 lpcd	Reduction in energy costs/ KL
2	Improvements in water distribution and SCADA	270	37	24x7 Supply Universal coverage Water quality compliance	Reduction in Non-Revenue Water Increase in metering and cost recovery
3	Extension of sewage network	246	34	Universal Coverage	Sewage collection efficiency
4	Rehabilitation and capacity addition of STPs	104	14	Sewage treatment capacity Quality of sewage treatment	Cost recovery
Total		986	135		



20. **Shifting focus to service delivery orientation and increasing efficiency of WSS operations:** To ensure that capital investments achieve service delivery improvements, SJPNL will enter into performance-based contracts with service providers. The arrangement will include both service delivery and construction responsibilities and will follow the GoHP guidelines for performance-based service contracts. These contracts will ensure service delivery orientation in both capital investments and in operations. SJPNL would manage small bulk water facilities and expansion of water services to peri urban areas until they are covered under performance-based service contracts. SJPNL will also oversee the quality of customer service provided by private service providers with the help of objective performance indicators. SJPNL will be responsible for long term planning for WSS in Greater Shimla Area and financial sustainability of operations.

21. **Tariff structure for improving cost recovery has been approved:** The tariff structure, effective from April 1, 2018, introduces increasing block volumetric tariff along with universal metering. This encourages equity, demand management and affordability for the poor. The monthly volumetric water bill for poor customers will reduce by 50 percent as compared to the current monthly flat tariff. Non-domestic customers will cross subsidize domestic customers from FY2024-25. The tariff structure allows

Table 5 – Approved Tariff Structure

Connection Type	Customers with monthly consumption		Rate per KL (Intermittent Water Supply)	Rate per KL (post 24X7 water supply)
	From (KL)	To (KL)		
Domestic				
Slab 1	0.0	7.0	Flat INR 100 charged for consumption up to 7 KL per month	Flat INR 120.00 charged for consumption up to 7 KL per month
Slab 2	7.0	20.0	14.5	17.40
Slab 3	20.0	30.0	25.0	30.00
Slab 4	30.0	-	45.0	54.00
Commercial				
Slab 1	0.0	8.0	Flat INR 532 charged for consumption up to 8 KL per month	Flat INR 638.40 charged for consumption up to 8 KL per month
Slab 2	8.0	20.0	40.0	48.00
Slab 3	20.0	30.0	62.9	75.48
Slab 4	30.0	75.0	83.6	100.32
Slab 5	75.0	-	115.0	138.00
Hotel				
Slab 1	0.0	30.0	79.85	95.82
Slab 2	30.0	75.0	106.5	127.80
Slab 3	75.0	-	146.4	175.68

automatic adjustments in tariff to reflect increase in electricity tariff and salaries. Further tariff is indexed automatically by 10 percent each year till FY 2024-25 and 8 percent post FY 2024-25.

22. **Shimla is moving from a regressive flat tariff towards a volumetric incremental block tariff:** At present a flat tariff of INR 302.5 per connection per month (USD 4.4) is charged for water. In addition to this, 30 percent surcharge is levied for sewerage. The bill for WSS totals to INR 393 per month (USD 5.7). The increasing block volumetric tariff will ensure that the WSS bill of consumers using less water reduces significantly. Customers falling under Slab 1 consuming (0-7 KL)¹⁶ will see almost a 50 percent reduction in their bills. Customers falling under Slab 2 will also see a reduction in their bills. The customers falling under Slab 3 would be charged for their excess consumption and their bills are likely to increase.

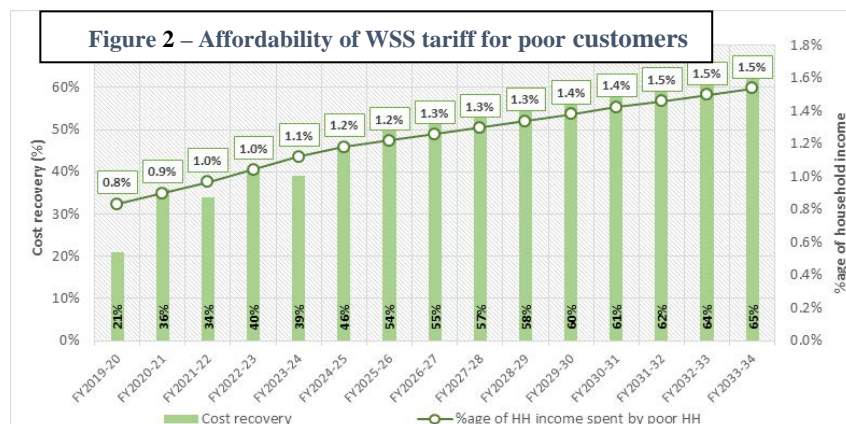
23. **Tariff design incentivizes households to take individual connections:** Increasing block volumetric

¹⁶Refers to customers which consume less than 7 KL per month and will pay a minimum charge of INR 100 for water supply and INR 100 for sewerage.



tariffs will encourage consumers to reduce wasteful consumption. It will also encourage households with shared connections to apply for individual connection. The individual connections are expected to bring more accountability to consumer and instill focus on conservation of water. The transition towards individual connection would lead to reduction in consumption per connection.

24. **Tariff structure ensures affordability for poor:** Only 1.5 percent of the poor household expenditure will be spent on water supply and sewerage services. As per the tariff structure, for consumption up to 7 KL per month (60 lpcd), fixed water charges of INR 100 per month and fixed sewerage charges of INR 100 per month will be charged. It is envisaged that poor will fall under consumption of 7 KL per month. It is envisaged that about 2 percent¹⁷ of the poor household expenditure will be spent on water supply and sewerage services in FY 2019-20.



25. **Regulatory mechanism for WSS operations has been decided:** Based on review of international and Indian experiences of economic regulation in WSS and electricity sector and considering the small size of WSS sector in Himachal Pradesh, GoHP has finalized the regulatory mechanism for Greater Shimla Area. The Managing Director of SJPNL will prepare tariff proposal based on cost recovery targets. The independent directors will provide written opinions to the Board of Directors on this proposal along with annual subsidy requirements and/or tariff revisions. The Board of Directors will determine the annual subsidy required by applying the cost recovery and tariff policies of GoHP and/or tariff revisions required. SJPNL will seek the opinion of SMC on the recommendations of the Board of Directors and forward the Board's recommendations along with the opinion of SMC to GoHP for approval. If GoHP approves a tariff less than that recommended by the Board of Directors, it will provide additional subsidy to compensate for the revenue loss. If SMC recommends a reduction in tariff as compared to that recommended by Board of Directors to GoHP, such reduction will take effect after SJPNL receives upfront subsidy to compensate the revenue loss due to such reduction.

26. **Program for energy efficiency improvements is under implementation:** Shimla faces severe geographical challenges and is one of the highest energy intensive water supply systems in India. Bulk water is pumped over an elevation of 1400 meters since there are no local sources. This results in energy bill close to 80 percent of the operational cost. An energy audit conducted by SJPNL suggests that there is potential of reducing 30 percent energy consumption in WSS program of Greater Shimla Area and interventions could result in a total of INR 790 crores (USD 108.2 million) worth of savings in energy costs over fifteen years. SJPNL has developed an energy efficiency program that has identified electrical and hydraulic improvements that will reduce energy consumption in existing bulk water supply and

¹⁷ The household expenditure for Shimla for bottom 25% percentile at 2012 prices (NSSO 69th round) is estimated at INR 6750 per month. Assuming annual increase of 10% in household expenditure, the estimated household expenditure in 2019 is expected to be about INR 13200 per month.



wastewater treatment plants. Existing transmission losses are in the range of 25 percent. The transmission losses will reduce to 5 percent after replacement and rehabilitation works are undertaken at the intake works, pumping station, water treatment plant and transmission mains. Energy consumption per unit of bulk water produced from existing sources is expected to decrease by 20 percent by FY2024-25.

27. **Cost recovery roadmap is guided by a detailed financial analysis.** The average O&M cost per thousand litres of water supplied is above INR 110, one of the highest in the country. The high expenditure is due to the electricity costs incurred in bringing bulk water to the city from valleys far below and distant. The cost of bulk water accounts for more than 75 percent of the total costs of water supply and sewage in the city. Tariffs are well below costs.

Table 6 – Cost Recovery Roadmap

	Cost Recovery		
	FY 2017-18	Interim target	FY 2033-34
Cost recovery in sewage collection and treatment	72%	100% by FY2021-22	Above 100%
Combined cost recovery of water and sewage excluding cost of bulk water	83%	100% by FY2021-22	Above 100%
Overall cost recovery excluding cost of electricity in bulk production	55%	150% by FY2024-25	Above 100%
Overall cost recovery (O&M)	21%	100% by FY2024-25	Above 100%
		50% by FY 2026-27	66%

*O&M costs exclude depreciation.

The WSS operations in Greater Shimla Area recovers only 21 percent of the O&M costs. The GoHP provides subsidies to meet the high O&M expenditure.

28. A detailed financial analysis indicates that overall subsidy requirement will increase from INR 91 crores (USD 12.5 million) to INR 128 crores (USD 17.5 million) in the same period. Subsidy per household will decrease by 31 percent from INR 1,655 (USD 22.7) per month to INR 1,145 (USD 15.7) per month in the same period. The efficiency improvements due to the medium-term capital investment plan are able to compensate for the increased service area and for the increased bulk water costs from Sutlej. Cost recovery will improve from 21 percent to 66 percent in the period FY 2017-18 to FY 2033-34. SJPNL will achieve required operating efficiencies in a) Non-revenue water, b) energy efficiency and c) collection efficiency. The GoHP roadmap for cost recovery in WSS is provided below.

29. **GoHP will provide assured subsidies to address the cost recovery challenges:** Based on the detailed financial analysis, and recognizing the cost recovery challenges, GoHP has committed O&M subsidy up to INR120 crores (USD 16.4 million) a year to address high energy costs and inherited inefficiencies. The financial analysis indicates that this allocation is sufficient to meet the WSS subsidy requirements till FY2029-30.

30. **GoHP will provide additional performance-linked financing to sustain service delivery improvements:** In addition to the committed subsidy, GoHP and SMC will also provide additional performance linked financing to SJPNL which will be utilized to implement an incentive system for SJPNL staff once service delivery improvements are achieved. The performance targets have been finalized by the Board of Directors and include WSS standards, implementation of capital investment plan and implementation of organizational systems. The performance incentive would be up to 10 percent of the user charges collected by SJPNL, which translates to an incentive of about 30 percent of salaries.

31. **Increasing customer orientation and accountability by SJPNL:** GoHP has already established a legal framework for customer accountability through the Himachal Pradesh Public Services Guarantee Act 2011. The time periods for customer service and grievance redressal have already been notified for WSS services under this Act. SJPNL is developing a mobile based grievance redressal platform. A robust customer service and grievance redressal mechanism, in line with this Act and international best practices will be provided to the citizens of Greater Shimla Area. SJPNL will also implement monitoring and



evaluation systems to collect and disclose performance data. Performance data will be disaggregated to identify service delivery status to poor and vulnerable sections. Emphasis will also be on increasing information access to SMC, the poor and vulnerable citizens.

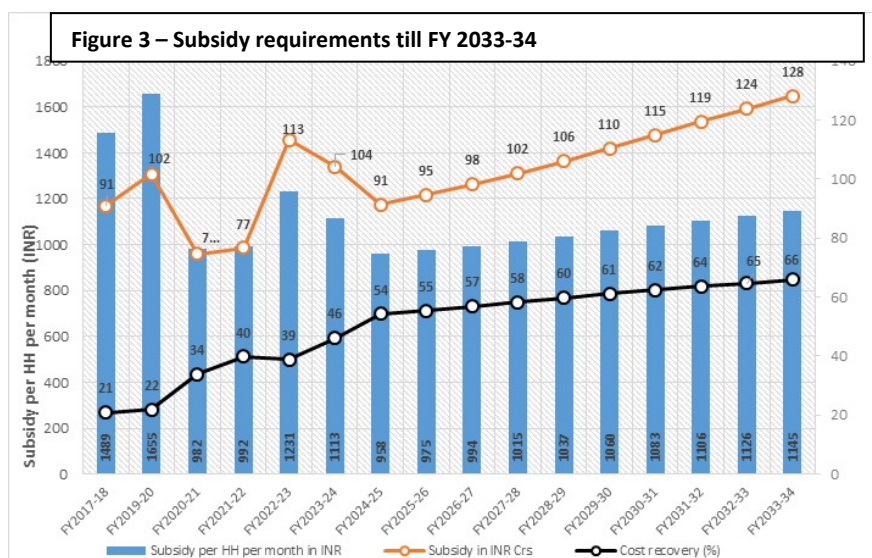
E. Financial Projections

32. **Financial Projections.** The WSS Medium-term plan introduces several changes in Greater Shimla Area, including expansion of service, modern O&M practices, 24x7 supply, full water and effluent treatment quality compliance, energy efficiency measures, non-revenue water reduction, volumetric tariff etc. These measures increase costs and revenues and achieve higher operating efficiencies. Water production is expected to grow by

Table 7 – Financial Projections for WSS in Greater Shimla Area

Item	Unit	2017-18	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2029-30	2033-34	Increase 2033-34 over 2017-18
Water produced per day	MLD	41	41	46	46	64	62	61	60	64	56%
Water sold per day	MLD	21	25	28	30	44	45	47	51	54	157%
Sewerage treated per day	MLD	6	6	8	10	15	17	19	34	39	550%
Cost (water supply + Sewerage) per KL of water sold	INR/ KL	153	143	112	118	116	117	117	153	190	24%
Revenue (water supply + Sewerage) per KL of water sold	INR/ KL	32	31	38	47	45	54	63	94	125	291%
Total cost	INR Cr.	115	130	113	127	185	193	200	284	377	228%
Total revenue	INR Cr.	24	28	38	51	72	89	108	174	249	938%
Subsidy	INR Cr.	-91	-102	-75	-77	-113	-104	-91	-110	-128	41%
Cost Recovery	%	21%	22%	34%	40%	39%	46%	54%	61%	66%	

56 percent while water sold to customers is expected to grow by 157 percent reflecting reduction in non-revenue water. Sewage treated will increase by 550 percent reflecting the expansion in sewage services. While total costs increase by 228 percent, cost per unit of water sold to customers will increase only by 24 percent. This is due to higher operating efficiencies mainly arising from reduction in energy consumption and non-revenue water. As a result, although costs increase by 228 percent, annual subsidy requirement increases only by 41 percent. Cost recovery will improve from 21 percent to 66 percent from FY 2017-18 to FY 2033-34. Subsidy per household per month will decrease from INR 1,655 (USD 22.7) per month in FY 2019-20 to INR 1,145 (USD 15.7) in FY 2033-34. Annual O&M subsidy increases only by 2.2 percent per annum.



33. **Cost Recovery and Subsidy requirements.** While revenue increases with volumetric tariff, the costs also increase due to shift to systematic O&M practices. In the initial years there is cost reduction due to energy savings and revenue increase due to conversion of shared connections into individual



connections. However, in FY 22-23, cost increases due to commissioning of Sutlej and expansion to satellite towns. In subsequent years the Non-Revenue Water reduction and shift to 24X7 tariff improve cost recovery. However, these cost savings start to taper as sewage services expand to per-urban areas. Routine tariff revisions gradually improve cost recovery and keep subsidy increases below inflation. Out of total subsidies of 86.7 crores (USD 11.9 million) in FY 2019-20, 13 percent is towards non-domestic customers, which will be eliminated after FY 2024-25. The year-by-year projections for cost recovery and subsidy requirements are presented in the graph.

34. **Cost recovery projections:** Currently, SJPNL recovers 100 percent water distribution cost but underspends on O&M and hence systematic O&M practices would increase O&M costs. At the same time, O&M costs decrease due to reduction in energy consumption and Non-Revenue Water. 100 percent of combined O&M cost for bulk water supply, distribution and sewerage is expected to be recovered by user charges inclusive of sewerage charges by FY 2021-22. Thereafter, costs increase due to bulk water drawal from Sutlej river, and inclusion of satellite towns. By FY 2024-25, user charges can meet all O&M costs except the energy expenditure in bulk water production. By FY 2033-34, SJPNL will reach O&M cost recovery of 66 percent.

35. **Sensitivity to Non-Revenue Water and energy efficiency:** Overall subsidy requirement is highly sensitive to Non-Revenue Water levels and energy consumption. If Non-Revenue Water levels are 30 percent instead of the targeted 15 percent, the subsidy requirement increases to INR 177 crores (USD 24.2 million) in FY 2033-34 instead of INR 128 crores (USD 17.5 million). Similarly, if only two thirds of targeted energy reduction targets are achieved by the year FY 2033-34, the subsidy requirements will increase to INR 144 crores (USD 19.7 million) from INR 128 crores (USD 17.5 million).

F. Specific Areas for Capacity Building

36. SMC is legally responsible for WSS function under the municipal corporation Act and therefore has a role in WSS development. SMC needs support in tracking the progress of medium term as per performance indicators. SJPNL shall provide a water sector expert and systems to support SMC's role and responsibilities for monitoring progress of WSS indicators. The role of the expert will primarily be to i) to analyse information provided by SJPNL on the progress of WSS medium term plan, ii) provide additional information on WSS program as required by SMC, iii) to interface between SMC and SJPNL on matters related to progress of performance indicators under WSS program. SJPNL will also provide the necessary systems (hardware and software) to SMC.

37. The key responsibilities of SJPNL will be contract management, finance management, customer relationship management and asset management, along with long term WSS planning. So far, the departmental operations have only focused on day-to-day technical functions and asset creation. To perform these new roles and to ensure that SJPNL retains its managerial and financial autonomy, the SJPNL needs to build its capacity rapidly. The SJPNL will enter into a performance-based contract with a global publicly owned good practice WSS Utility, as a utility partner which can provide experts for helping SJPNL achieve its annual outputs. The global utility will also support SJPNL in developing as a professional, autonomous and accountable utility. The performance of the global WSS utility partner and at least 60% of the remuneration would be linked to annual performance scorecard rating achieved by SJPNL which includes service delivery indicators, efficiency indicators, progress in building WSS utility systems and progress in implementing capital investment plan. SJPNL has included an estimate of US\$ 3 Mn for the partnership for a four-year period.



ANNEX 6: POVERTY AND SOCIAL IMPACT ANALYSIS (PISA) STUDY

38. A Poverty and Social Impact Analysis (PSIA) study was undertaken to assess the distributional impacts of reforms by analyzing impacts on the well-being of different social groups, with a focus on the low-income groups and vulnerable groups, including women and female headed households (FHHs). The study chose target groups that were representative of the diverse range of domestic customers in various income groups, and non-domestic consumers, residing in and operating from different parts of Greater Shimla Area as well as receiving varied levels of WSS services. Key findings are summarized below.

- *Low Income Groups suffer disproportionately under the present system:* About 45 percent customers from low income groups suffered from water borne diseases in the past six months – either due to their dependence on shared sources, public taps and/or not treating their water. Further the present system of bunching water bills every quarter or half-yearly was perceived to be a burden particularly for low income groups. Awareness levels on documentation required for the new connections varied across users. The present connection policy requires a No Objection Certificate by the tenants from the owners. The low-income households were affected disproportionately as the average monthly cost of sewerage was higher in comparison to other income groups.
- *Huge coping costs to overcome the presently intermittent water supply:* Coping mechanisms to overcome intermittent water supply includes public taps, water from municipal tankers, private tankers or springs, particularly during supply disruptions, short supply or summer season. The average cost per month for domestic customers was reportedly as follows: lifting pumps (INR 167), private tankers (INR 3000), treating water using Reverse Osmosis (RO) purifiers (INR 652) along with storage tanks (INR 6,144). The low-income customers as expected could afford only water purifiers and storage tanks. Further, commercial establishments including educational institutions incurred extra time (1-3 hours) and costs towards collection, storage and monitoring the water wastage. Amongst commercial establishments, while the hotels and educational institutions treated water for drinking, most shopkeepers did not.
- *Low customer satisfaction levels regarding quality of present WSS services:* All income groups reported that the water supply situation had deteriorated in the past ten years with reasons cited as over population and a faulty water distribution system. Duration of water supply for domestic customers across income groups was 102 minutes with gap of 1 to 4 days – similar to the supply received by commercial customers. Water quality was considered as average by all. Commercial customers such as hotels paid the highest – INR 13,000 month on average, due to higher consumption and/or more than one connection, while educational institutions paid one-third of this cost, on average per month. However, prevalent grievance redressal system was considered effective as complaints were addressed normally within 24-48 hours.
- *High willingness to pay for better and improved services.* Improvements in water supply, duration and quality will benefit all and particularly low-income households. Proposed changes under the new connection policy of SJPNL to simplify the documentation and processes for all, including the users with houses on encroached land and moving to a system of monthly billing will be beneficial for all customers. All categories of customers are willing to pay more for a 24x7 water supply and are agreeable to an increase in tariff based on volume consumed and better sewage services. All users expect the reforms to be beneficial as these would eliminate the burden of water collection, storage and related coping mechanisms and costs, as well as reduce instances of water borne



diseases. Also, the significant benefit would be in the form of increased tourist inflow positively impacting the economy of Shimla.

- *Improved WSS services would significantly benefit women.* Poor WSS services impact women more as they are responsible for water collection in majority of households and the irregular timings of water supply adversely impact the working women. Also, female-headed households (FHHs) and low-income households specially reported health problems arising from water borne diseases. Hence improved WSS services resulting in 24X7 quality water supply, shift to volumetric tariff, and monthly billing along with an accessible grievance redressal and customer service center would significantly benefit women.

39. The study concluded that majority of the customers and particularly the low-income groups considered the proposed reforms to be positive. All customers are willing to pay for a 24x7 water supply and are agreeable to an increase in tariff based on volume consumed. All users expect the reforms to be beneficial as these would eliminate the burden of water collection, storage and related coping mechanisms and costs, as well as reduce instances of water borne diseases.

40. ***Pro-poor Impact of New Connection Policy:*** As a follow-up to the PSIA recommendations, the new connection policy will have positive effects on low-income households due to policies for the poor: i) simplifying the documentation and processes; ii) implementing a system of different meters or sub-meters for landlords and tenants; iii) moving to a system of monthly billing, payment in installments, and concession in fees for low income households; iv) providing household level sewage connections; (v) devising a well-planned communication strategy to communicate proposed reforms and timelines of supply; and (vi) designing a robust monitoring mechanism to measure impact of changes in WSS services. The WSS Company will monitor effects on low-income groups by transparently reporting feedback from customers including vulnerable groups. The information and monitoring systems will provide disaggregated data for different customer groups, including low income households along with citizens report-card for public disclosure. The SMC will receive information periodically about how vulnerable groups are served by the WSS Company.



ANNEX 7: MACROECONOMIC ANALYSIS: ASSUMPTIONS UNDERLYING THE BASELINE SCENARIO

Variable	Assumption
Nominal GSDP	Assumed to grow at the average rate observed in the three years preceding t-1 (14 th Finance Commission formula)
Real GSDP	Estimated using five-year average growth.
Tax devolutions from central government (i.e. Gol)	Estimated using the average observed buoyancy of central collections and Himachal Pradesh's share of 0.71 percent during FY11-FY15
Grants from central government	Treated as a <u>residual</u> given data obtained from Himachal Pradesh authorities on aggregate revenue receipts (up to 2022), tax and non-tax revenues.
Own tax revenues	As per projections received from HP authorities.
Own non-tax revenues	As per projections received from HP authorities.
Recovery of loans and advances	Estimated as a 3-year moving average
Miscellaneous capital receipts (including disinvestments)	Estimated as a 3-year moving average
Salaries and wages	As per projections received from HP authorities.
Pensions	Same as salaries and wages
Interest Payments	Calculated as outstanding debt at the end of last period times the rate of interest in the current period
Grants in aid for salaries	Same as salaries and wages
Capital Expenditures	As per projections received from HP authorities.

Summary Indicators

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Revenues as % of GSDP	18.9	16.6	17.9	20.7	21.2	20.7	20.1	19.2	18.5	17.8
Expenditure as % of GSDP	22.5	20.8	21.9	25.1	25.6	26.1	25.2	24.1	25.0	24.0
Interest as % of Revenues	15.2	15.8	15.4	13.4	12.8	13.6	14.0	13.7	13.8	13.9
Debt/GSDP Ratio	35.5	35.8	36.8	36.8	36.6	35.7	35.0	34.0	33.1	32.3
Fiscal Balance (% of GSDP)	-3.6	-4.2	-4.0	-4.4	-4.5	-5.5	-5.2	-4.9	-6.5	-6.1
Capital Expenditures % of GDP	2.9	2.5	2.8	3.2	5.2	3.6	3.1	3.0	2.9	2.9

Revenues

% of GSDP	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Devolution from Central Government	11.6	9.3	9.5	13.1	14.1	13.6	13.3	12.6	12.0	11.4
Tax shares from centre	2.8	2.6	2.5	3.2	3.5	3.5	4.2	4.2	4.1	4.1
Grants from Central Government	8.8	6.7	6.9	10.0	10.6	10.1	9.1	8.4	7.8	7.3
Tax Revenues	5.6	5.4	5.7	5.9	5.7	5.4	5.4	5.4	5.3	5.3
Non-Tax Revenues	1.7	1.9	2.0	1.6	1.4	1.6	1.3	1.2	1.1	1.1
Recovery of Loans and Advances	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Revenues	18.9	16.6	17.9	20.7	21.2	20.7	20.1	19.2	18.5	17.8

Expenditures

% of GSDP	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Current Expenditures	19.5	18.3	19.1	21.8	20.4	22.6	22.2	21.1	22.0	21.1
Committed	14.5	13.0	13.2	13.5	13.4	14.8	15.0	13.9	15.0	14.3
Salaries and wages	7.6	6.8	6.9	6.2	6.8	7.5	7.6	7.0	8.1	7.7
Pensions	3.3	3.0	2.8	3.4	3.3	3.6	3.9	3.6	3.8	3.5
Interest	2.9	2.6	2.7	2.8	2.7	2.8	2.8	2.6	2.6	2.5
Subsidies	0.7	0.5	0.8	1.2	0.6	0.8	0.7	0.7	0.6	0.6
Capital Expenditures	2.9	2.5	2.8	3.2	5.2	3.6	3.1	3.0	2.9	2.9
Total Expenditures	22.5	20.8	21.9	25.1	25.6	26.1	25.2	24.1	25.0	24.0