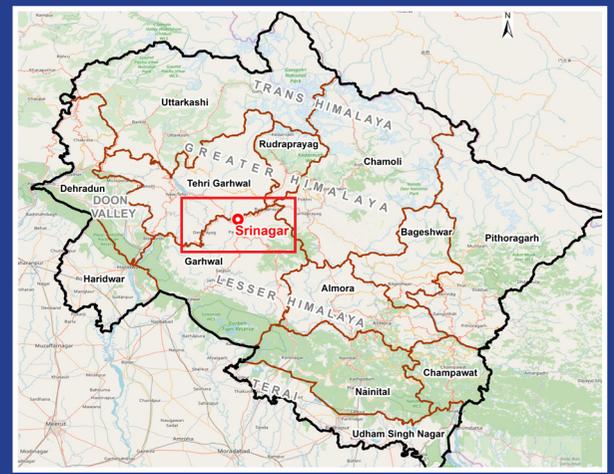
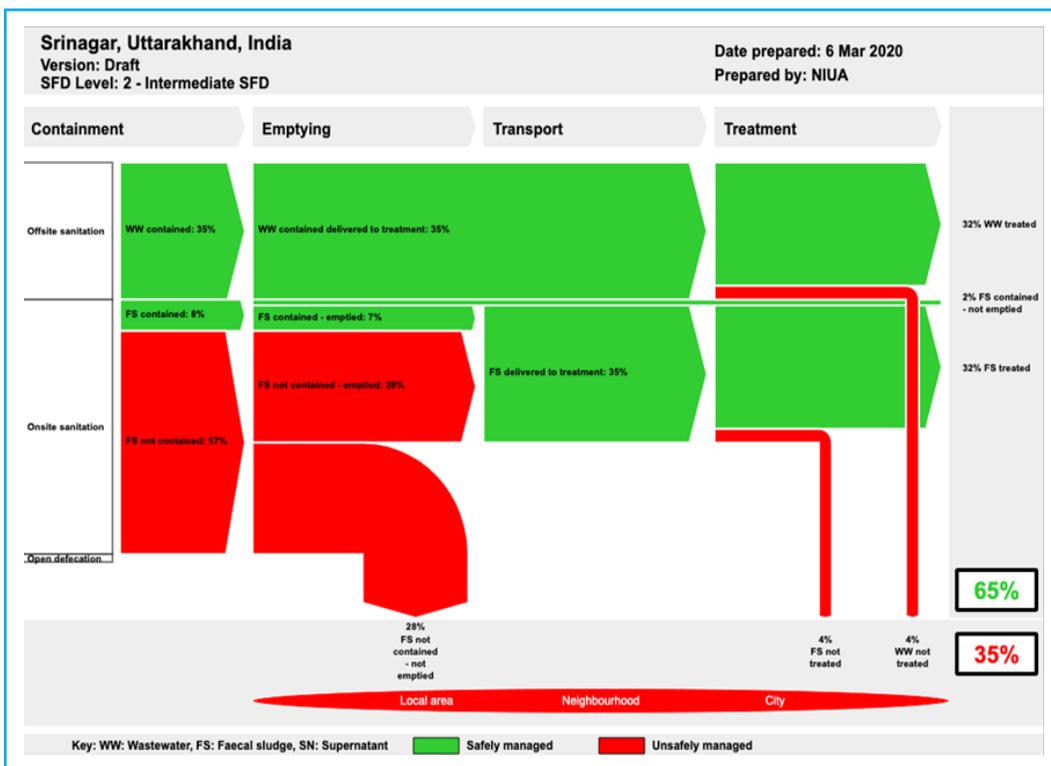


Srinagar

Srinagar is a Municipal Council in Pauri Garhwal district of Uttarakhand state, India. Srinagar is also a major town for Char Dham Yatra and provides a topography suitable for tourists to stay. It is also an educational hub with four major educational institutes in the city.



Population 44000	Households 6038 HHs	No. of Wards 9 wards	Municipal Area 13 sq. km	Local Govt Municipal council	Annual Budget 2018-19 Inc. : ~ 4.85 Cr. Exp. : ~5.42 Cr.	Septage Management cell Yes
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OVERVIEW: WATER AND SANITATION

Faecal Sludge and Septage Generation: ~11 KLD	Wastewater Generation: ~6 MLD
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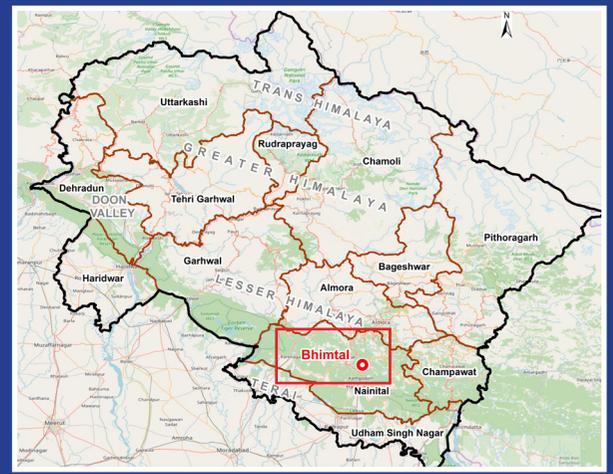
- 85% coverage | 170 lpcd | 4 WTPs (11.5 MLD)**
Water Supply: Alakananda River (Major Source)
- Sewerage Network | Open Drains (major source) | Pits**
Greywater: 35% HHs are connected to the sewerage network and non-sewered areas ends into the natural water stream
- 8 TPD | 2 TPD (C&D waste)**
Solid Waste: 2 Tonnes dry and 2.5 Tonnes Bio-degradable waste segregated at MRF

SFD Level : 2 - Intermediate SFD

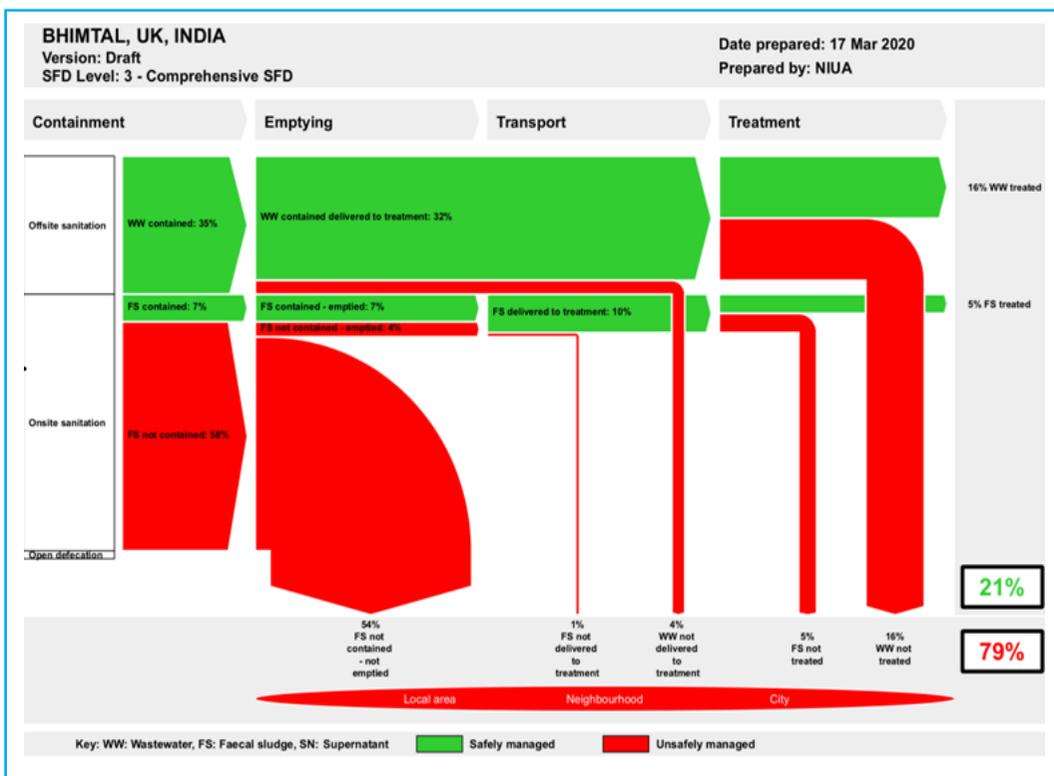
<h4>User Interface</h4> <ul style="list-style-type: none"> IHHT: 100% coverage (6038 HHs) CT/PT: 5 no. 	<h4>Containment</h4> <ul style="list-style-type: none"> Open bottom tank: 24% Septic tank connected to either drain or soak pit: 30% Fully lined tank: 10% Sewered: 36% 	<h4>Emptying</h4> <ul style="list-style-type: none"> Cesspool Vehicle: 2 no. (Tractor Mounted) Capacity: 3 KL Desludging: On demand basis Emptying frequency: Majority of HHs desludge in more than 10 yrs cycle Around 80% HHs have access road equal or more than 3 m
<h4>Disposal/Reuse</h4> <ul style="list-style-type: none"> Currently treated sludge or treated wastewater is not being reused. At some spots, wastewater and septage enters directly into the river through open drains 	<h4>Treatment</h4> <ul style="list-style-type: none"> STP 1: 3.5 MLD (MBBR Technology) - 37% Utilised STP 2: 1 MLD (SBR Technology) - 30% Utilized No separate treatment Facility for septage treatment 	<h4>Transportation</h4> <ul style="list-style-type: none"> Desludging Charges: INR 4000 Sludge is dumped into sewer manhole outside STP INR 1000 tipping fee charged by Jal Sansthan for discharging into sewer manhole Sewage is conveyed through 12 existing Nallahs after tapping, which are further connected to the STP

Bhimtal

Bhimtal is a Notified Area Council (Nagar Panchayat) having a beautiful and one of the largest lake of Kumaun Central Himalayan Region of Nainital district, Uttarakhand, India. Bhimtal is about 22kms away from the district headquarters Nainital.



Population 14882	Households 2935 HHs	No. of Wards 9 wards	Municipal Area 18.52 sq. km	Local Govt Notified Area Council	Annual Budget (2019-20) Inc. : ~1.97 Cr.	Septic Management cell Yes
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OVERVIEW: WATER AND SANITATION

Faecal Sludge and Septage Generation: ~5 KLD	Wastewater Generation: ~1.3 MLD
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- >90% coverage | 108 lpcd | 5 Borewells**
- Water Supply:** Borewells and Natural stream
- Open Drains (major source) | Pits within HH premises**
- Greywater:** 35% HHs are connected to the sewerage network and non-sewered areas ends into the natural water stream
- 2.5 TPD**
- Solid Waste:** Door to door collected waste taken to dumping site at nearby town Haldwani

SFD Level : 3 - Comprehensive SFD

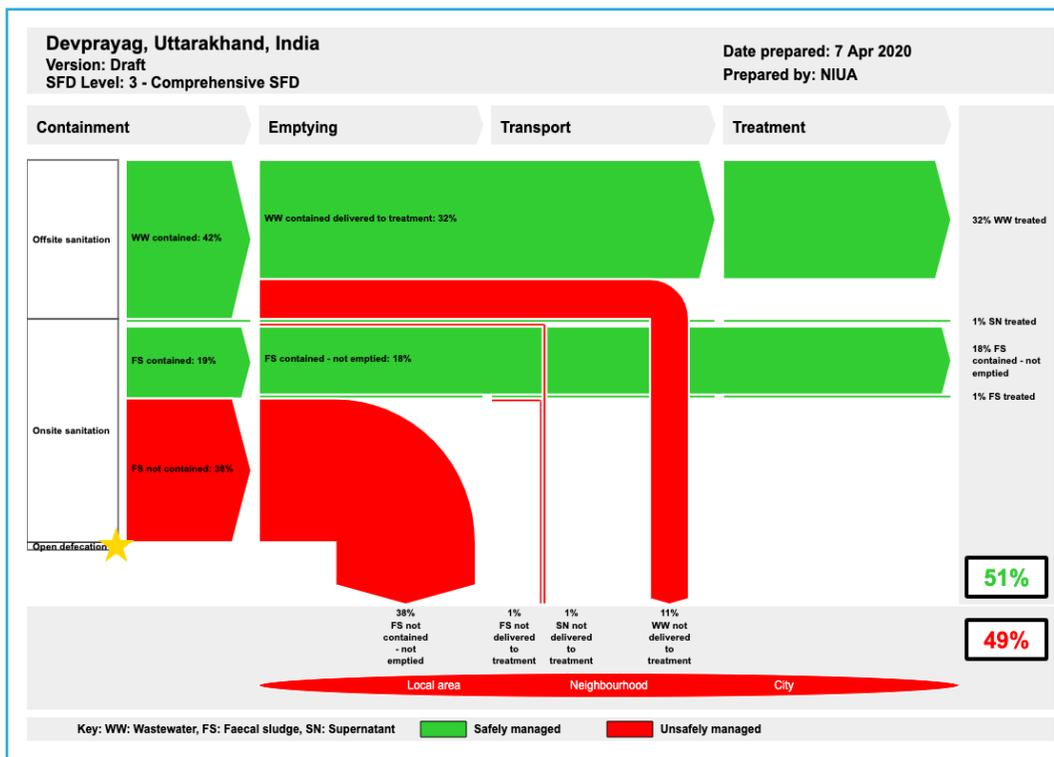
<h3>User Interface</h3> <ul style="list-style-type: none"> IHHT: 100% coverage (2935 HHs) CT/PT: 6 no. 	<h3>Containment</h3>	<h3>Emptying</h3> <ul style="list-style-type: none"> Cesspool Vehicle: Cesspool operators are called from Haldwani on demand Capacity: 3KL Desludging: On demand basis Emptying frequency: Majority of HHs desludge in more than 10 yrs. cycle and Fully sealed tank desludge in up to 5 yrs. Around 70% HHs have access road equal or more than 3 m
<h3>Disposal/Reuse</h3> <ul style="list-style-type: none"> FS transported and discharges into sewer manhole outside STP, Haldwani Currently treated sludge and treated wastewater is not being reused. There are some points where wastewater entering directly to Bhimtal lake through open drains 	<h3>Treatment</h3> <ul style="list-style-type: none"> STP 1: 1.25 MLD (UASB Technology) – 66% Utilised Two pumping stations connected to the STP in series No separate septage treatment Facility 	<h3>Transportation</h3> <ul style="list-style-type: none"> Desludging charges: INR 6000 Sludge is dumped into sewer manhole outside STP, haldwani

Devprayag

Devprayag is a Municipal Council situated in Tehri Garhwal district, Uttarakhand, India. It is one of the smallest municipalities in the state. Devprayag is one of the five prayags and is famous for being the place where rivers Bhagirathi and Alaknanda meet and there by the confluence is known as Ganga.



Population 3059	Households 642 HHs	No. of Wards 4 wards	Municipal Area 6 sq. km	Local Govt Municipal Council	Annual Budget (2018-19) Inc. : 3.42 Cr. Exp : 3.36 Cr.	Septage Management cell Yes
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OVERVIEW: WATER AND SANITATION

Faecal Sludge and Septage Generation: ~1 KLD	Wastewater Generation: ~3.3 MLD
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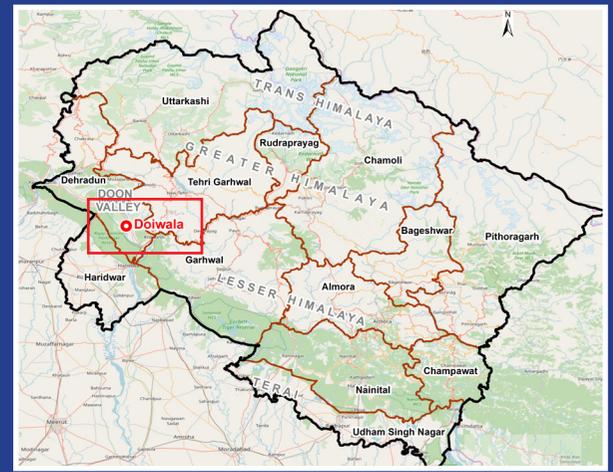
- Almost 100% coverage | 135 lpcd | 3 Borewells**
Water Supply: Borewells
- Sewerage Network and Open Drains**
Greywater: Almost 55% conveyed to STPs and rest through open drains that ends up into river
- 0.6 TPD**
Solid Waste: Door to door collected waste taken to collection site for segregation and dumping. No treatment is being done

SFD Level : 3 - Comprehensive SFD

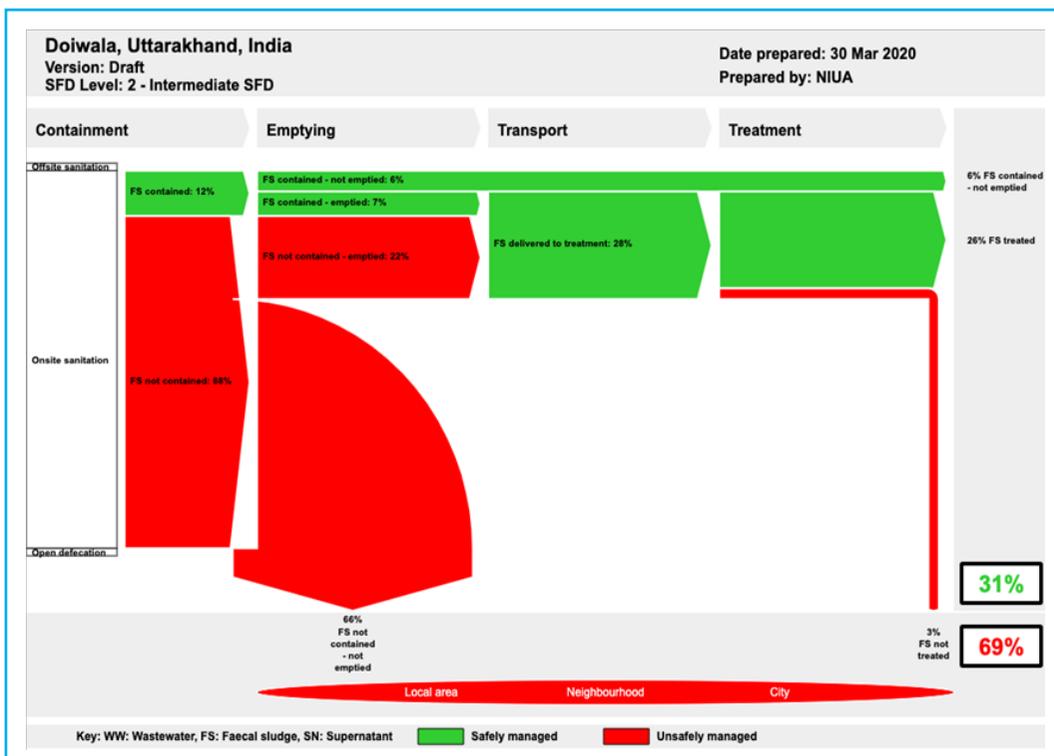
<h3>User Interface</h3> <ul style="list-style-type: none"> IHHT: 100% coverage (642 HHs) Public Toilet: 8 nos. 	<h3>Containment</h3>	<h3>Emptying</h3> <ul style="list-style-type: none"> Cesspool Vehicle: No cesspool vehicle available Capacity: NA Desludging: Manual emptying using bucket and put in freshly dug pit and later covered within house premises Emptying frequency: approx. 5-6 years
<h3>Disposal/Reuse</h3> <ul style="list-style-type: none"> Treated wastewater is let off into the river Dried sludge from STP is used for gardening within the STP premises 	<h3>Treatment</h3> <ul style="list-style-type: none"> STP 1: 1.4 MLD SBT Technology (21% Utilized) STP 2: 0.15 MLD SBR Technology (86% Utilized) STP 3: 0.75 MLD SBR Technology (Not Utilized) No separate treatment facility for septage treatment Septage emptied at sewer manhole at Baha Bazar location 	<h3>Transportation</h3> <ul style="list-style-type: none"> No desludging through cesspool vehicle

Doiwala

Doiwala is a Municipal Council and a town in Dehradun District of Uttarakhand. It is an strategically important location for the state because of the presence of Jolly Grant Airport. Doiwala comes under Doon Valley's Terai and Bhabhar region



<p>Population 61370</p>	<p>Households 12302 HHs</p>	<p>No. of Wards 20 wards</p>	<p>Municipal Area 32.6 sq. km</p>	<p>Local Govt Municipal Council</p>	<p>Annual Budget (2018-19) Inc. : ~3.03 Cr. Exp. : ~3.07 Cr</p>	<p>Septage Management cell Yes</p>
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OVERVIEW: WATER AND SANITATION

Faecal Sludge and Septage Generation:
~18 KLD

Wastewater Generation:
~7.36 MLD

Almost 100% coverage | 150 lpcd | 31 Borewells
Water Supply: Borewells

Open drains and soak pits
Greywater: open drain are major source to convey grey water

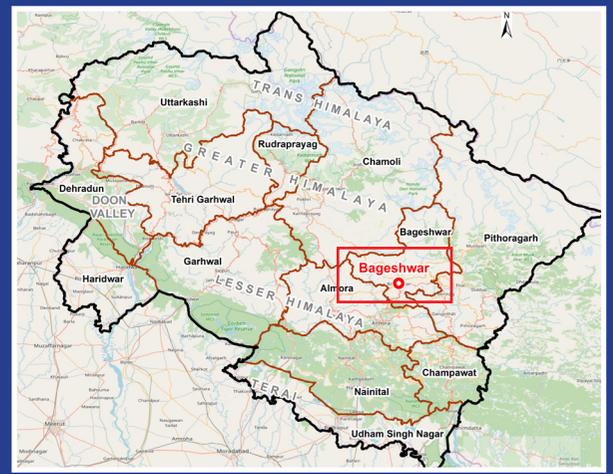
2 Tonnes per day
Solid Waste: 100% Door to door collected waste taken to dumping yard for segregation and dumping. No treatment is being done

SFD Level : 2 - Intermediate SFD

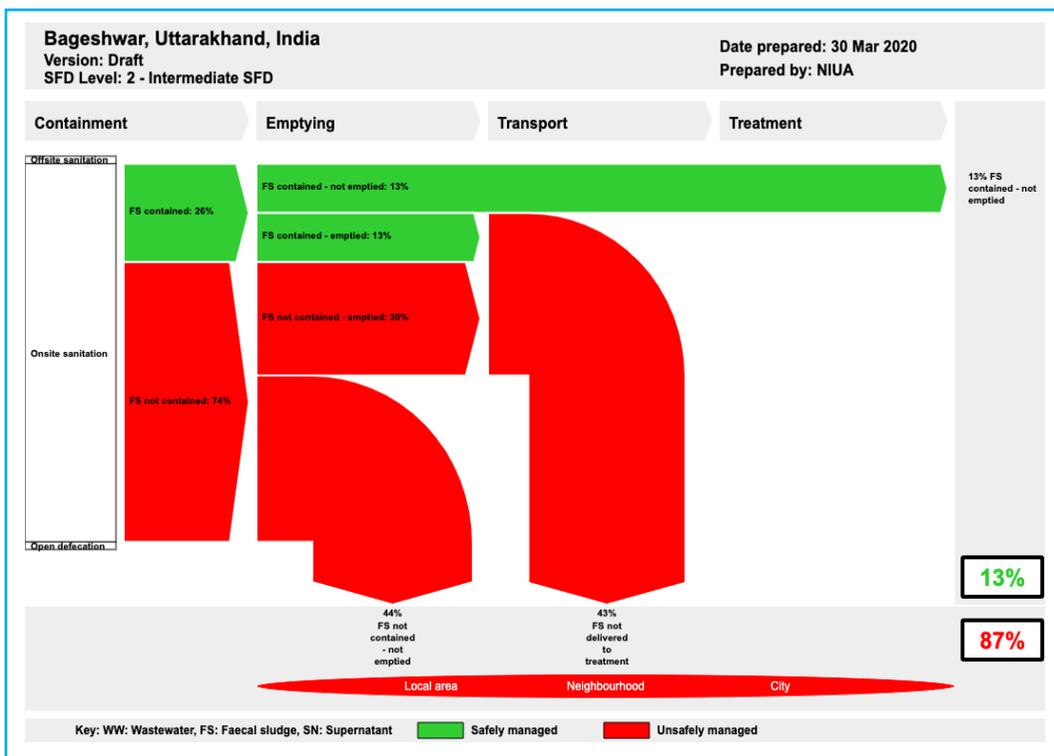
<p>User Interface</p> <ul style="list-style-type: none"> IHHT: 100% coverage (12302 HHs) CTs/Pts: 2 CTs and 2 PTs 	<p>Containment</p>	<p>Emptying</p> <ul style="list-style-type: none"> Cesspool Vehicle: 2 cesspool vehicles Capacity: 3 KL Emptying frequency: More than 10 years Desludging: Emptying through cesspool vehicle on demand basis
<p>Disposal/Reuse</p> <ul style="list-style-type: none"> No proper disposal and reuse 	<p>Treatment</p> <ul style="list-style-type: none"> No treatment facility for sewage and septage Septage emptied at sewer manhole at Kargi chowk STP, Dehradun 	<p>Transportation</p> <ul style="list-style-type: none"> Septage is discharged into sewer manhole at Kargi chowk STP, Dehradun

Bageshwar

Bageshwar is a Municipal Council in Bageshwar district, Uttarakhand. It is situated in a valley of the Kumaon hills of the Central Himalaya range. The drainage of the area is mainly controlled by Saryu, Gomti and Pindar rivers and their tributaries.



<p>Population 25045</p>	<p>Households 4808 HHs</p>	<p>No. of Wards 11 wards</p>	<p>Municipal Area 8.5 sq. km</p>	<p>Local Govt Municipal Council</p>	<p>Annual Budget (2018-19) Inc. : ~8.9 Cr. Ann Bgd: ~8.8 Cr.</p>	<p>Septage Management cell Yes</p>
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OVERVIEW: WATER AND SANITATION

<p>Faecal Sludge and Septage Generation: ~8 KLD</p>	<p>Wastewater Generation: ~2.4 MLD</p>
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85% coverage | 120 lpcd | 1 infiltration well and 1 mini well | 1.2 MLD WTP
Water Supply: Infiltration well, natural streams and community tubewells

Open drains
Greywater: open drain are the major source to convey greywater

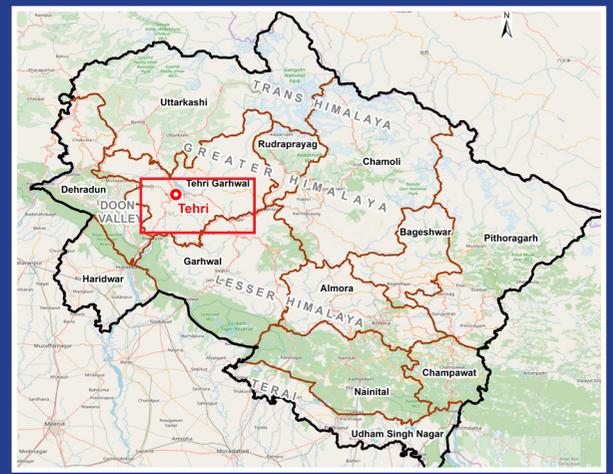
6.2 TPD | 100% D2D collection & 60% segregation
Solid Waste: Door to door collected waste taken to collection site for segregation and dumping at Matla road . No treatment is being done

SFD Level : 2 - Intermediate SFD

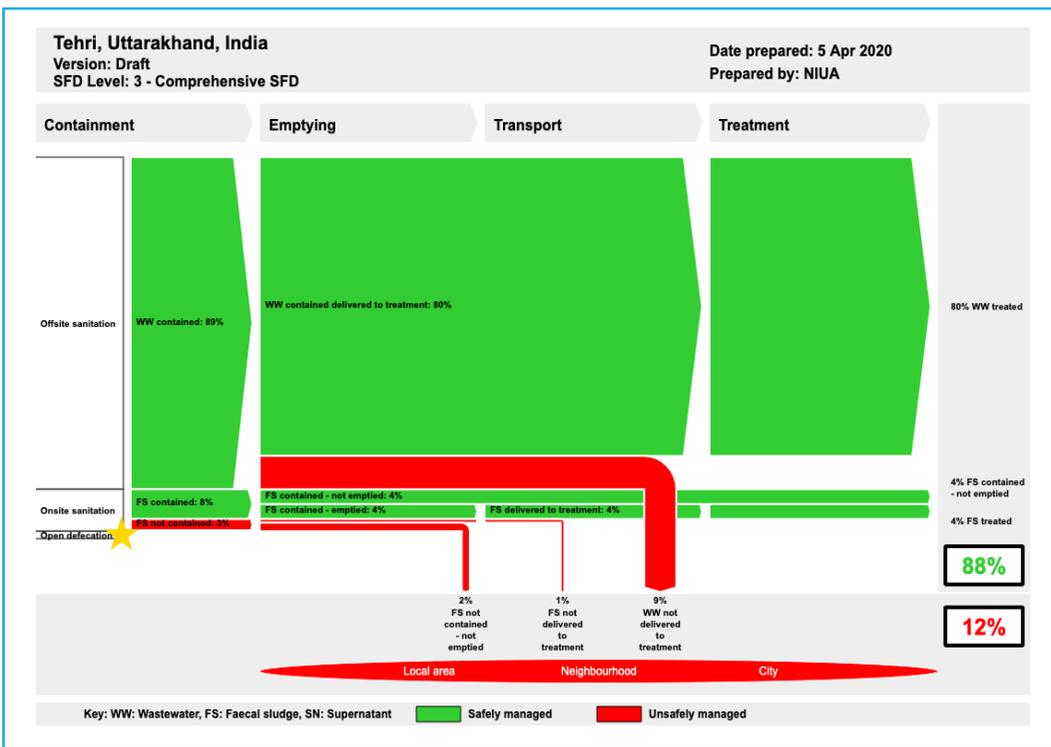
<h3>User Interface</h3> <ul style="list-style-type: none"> IHHT: 100% coverage (4808 HHs) CT/PT: 9 PTs and 4 CTs 	<h3>Containment</h3>	<h3>Emptying</h3> <ul style="list-style-type: none"> Cesspool Vehicle: No cesspool vehicle available Capacity: NA Desludging: Manual emptying using bucket and put in freshly dug pit and later covered within house premises INR 3000-4000 charged for manual emptying Emptying frequency: Average more than 10 years Around 40% HHs have access road equal or more than 3 m
<h3>Disposal/Reuse</h3> <ul style="list-style-type: none"> No proper disposal and reuse of grey water and septage Bhagirathi Nallah & Gomti Pul are few points where grey water directly drains to Gomti River 	<h3>Treatment</h3> <ul style="list-style-type: none"> No treatment Facility for sewage and septage Septage emptied at sewer Manhole at Baha Bazar location 	<h3>Transportation</h3> <ul style="list-style-type: none"> No desludging through cesspool vehicle

New Tehri

Tehri is a Municipal Council in Uttarakhand, India. It is the district headquarters of Tehri Garhwal district. Tehri also known as New Tehri, it was planned to accommodate people of Old Tehri which got submerged after the construction of Tehri dam, one of India's highest dam. Old Tehri was completely vacated in 2004 and people were relocated to New Tehri, Dehradun and Haridwar districts.



<p>Population 19794</p>	<p>Households 4284 HHs</p>	<p>No. of Wards 11 wards</p>	<p>Municipal Area 37.06 sq. km</p>	<p>Local Govt Municipal Council</p>	<p>Annual Budget (2018-19) Inc. : 11.18 Cr. Exp. : 10.61 Cr.</p>	<p>Septage Management cell No</p>
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OVERVIEW: WATER AND SANITATION

<p>Faecal Sludge and Septage Generation: ~8 KLD</p>	<p>Wastewater Generation: ~2.2 MLD</p>
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100% coverage | 135 lpcd
Water Supply: Borewells, natural streams and springs

Sewerage Network and Open Drains
Greywater: Almost 90% conveyed to STP through sewer lines

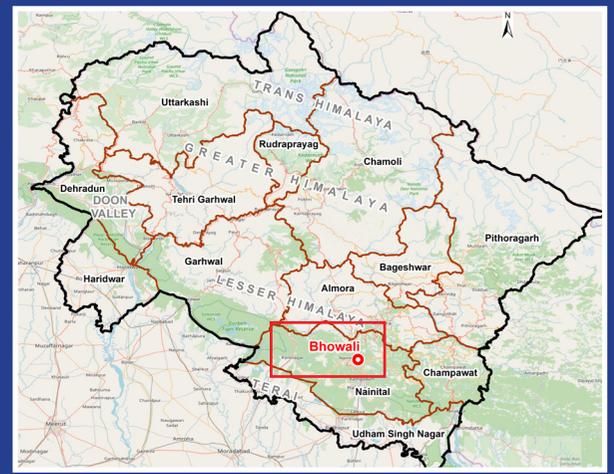
12 TPD | 100% Door to Door collection
Solid Waste: Door to door collected waste taken to collection site for segregation and dumping at Mukri. No treatment is being done

SFD Level : 3 - Comprehensive SFD

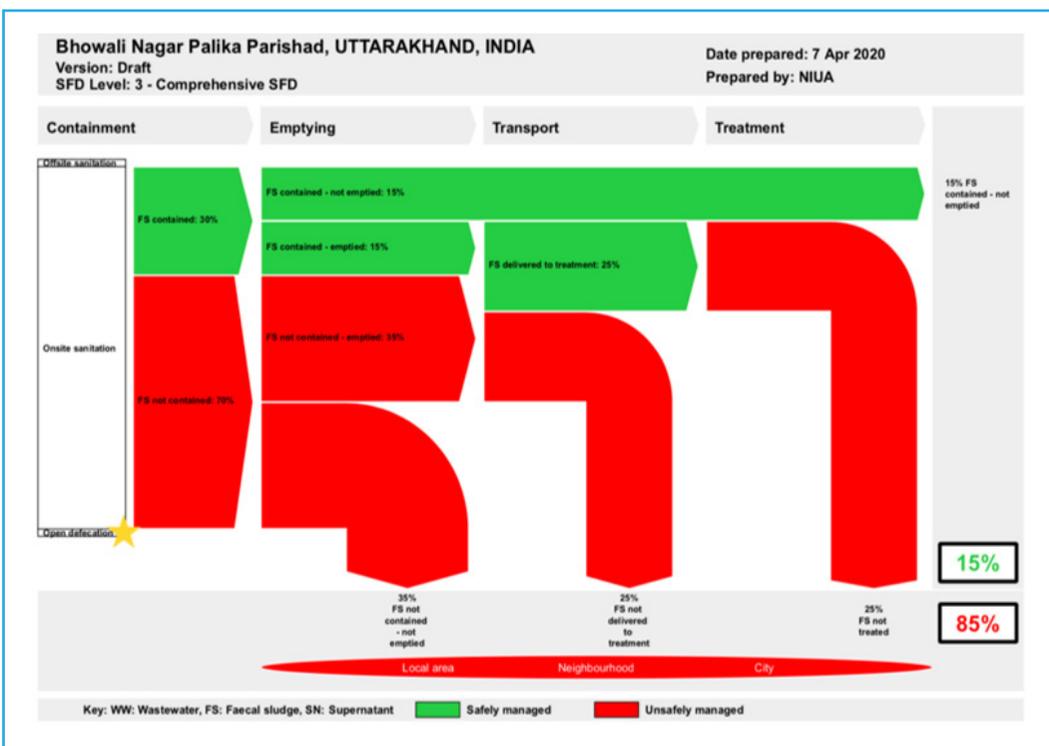
<p>User Interface</p> <ul style="list-style-type: none"> IHHT: 100% coverage (4284 HHs) CT/PT: 17 PTs 	<p>Containment</p>	<p>Emptying</p> <ul style="list-style-type: none"> Almost 89% wastewater is conveyed to STP Cesspool Vehicle: 2 cesspool vehicles (tractor mounted) Capacity: 3.5 KL Desludging: Manual emptying in some areas, using bucket and put in freshly dug pit and later covered within house premises Emptying frequency: Average 1 year from septic tanks Around 80% HHs have access road equal or more than 3 m
<p>Disposal/Reuse</p> <ul style="list-style-type: none"> The treated wastewater is let off into the river and the sludge is used for gardening within the STP premises 	<p>Treatment</p> <ul style="list-style-type: none"> STP: 5 MLD, Aerobic Sludge Process technology (50% utilized) Tehri STP receives septage from nearby town Chamba (thrice a month) 	<p>Transportation</p> <ul style="list-style-type: none"> Cesspool vehicle from nearby town chamba desludge septage into Tehri STP (thrice a month) Desludging charge: INR 10,000 fro HHs in Chamba (includes INR 2000 tipping fee paid to Jal Sansthan, Tehri)

Bhowali

Bhowali is a Municipal Council or Nagar Palika Parishad (NPP) in the Nainital district of Uttarakhand. It is also known as a health resort during the preindependence era due to its salubrious climate and rejuvenating environs.



<p>Population 8457</p>	<p>Households 2237 HHs</p>	<p>No. of Wards 7 wards</p>	<p>Municipal Area 6.78 sq. km</p>	<p>Local Govt Municipal Council</p>	<p>Annual Budget (2018-19) ~ 70 lakh (staff salaries budget)</p>	<p>Septage Management cell No</p>
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OVERVIEW: WATER AND SANITATION

<p>Faecal Sludge and Septage Generation: ~3.3 KLD</p>	<p>Wastewater Generation: ~0.8 MLD</p>
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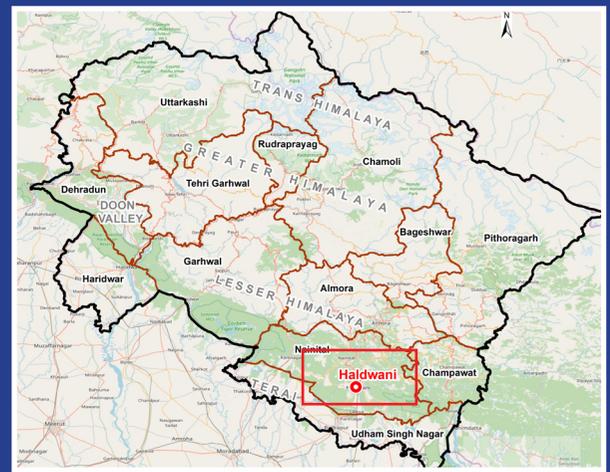
- 85% coverage | 120 lpcd**
Water Supply: 4 Borewells, natural streams and community handpumps
- Open Drains**
Greywater: Almost 90% conveyed to STP through sewer lines
- 2 TPD | 100% Door to Door collection**
Solid Waste: Door to door collected waste taken to dumping site at nearby town Haldwani

SFD Level : 3 - Comprehensive SFD

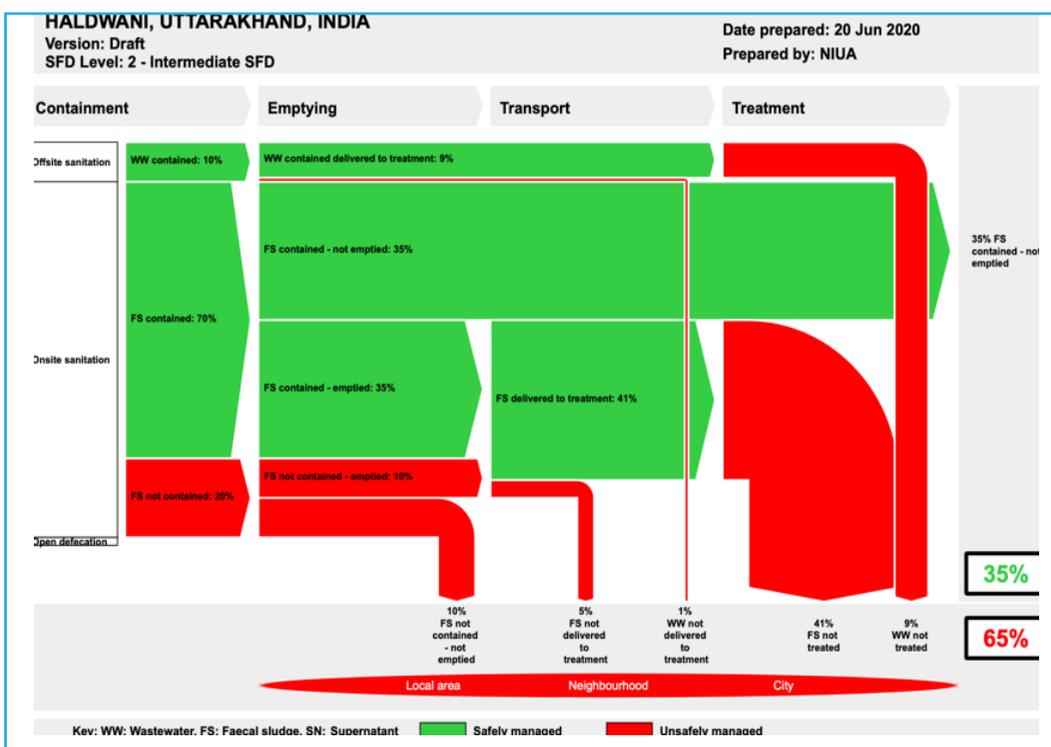
<p>User Interface</p> <ul style="list-style-type: none"> IHHT: 100% coverage (2237 HHs) PT: 7 no. 	<p>Containment</p> <ul style="list-style-type: none"> Damaged Fully lined: 54% Septic tank: 16% Open bottom tank: 30% 	<p>Emptying</p> <ul style="list-style-type: none"> Cesspool Vehicle: Cesspool operators are called from Haldwani on demand Capacity: 3KL Desludging: On demand basis Manual emptying in some areas, using bucket and put in freshly dug pit and later covered within house premises
<p>Disposal/Reuse</p> <ul style="list-style-type: none"> Desludging through cesspool: FS transported and discharges into sewer manhole outside STP, Haldwani Currently, the faecal sludge and wastewater are neither treated nor being reused. 	<p>Treatment</p> <ul style="list-style-type: none"> No treatment Facility for sewage and septage Surveying is undergoing across the ULB for preparation of a sewerage plan for Bhowali city 	<p>Transportation</p> <ul style="list-style-type: none"> Desludging charges: INR 6000 Sludge is dumped into sewer manhole outside STP, haldwani

Haldwani

Known as the 'Gateway of Kumaon' Haldwani is the third most populous state in the Uttarakhand state. It is a Municipal Corporation in Nainital district. The city of Haldwani along with its twin township of Kathgodam forms the Haldwani-Kathgodam Municipal Board. It is one of the major commercial and educational hubs in the state.



Population 2,80,604	Households 53,962 HHs	No. of Wards 60 wards	Municipal Area 42 sq. km	Local Govt Municipal Corporation	Annual Budget (2018-19) ~22 Cr.	Septage Management cell No
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OVERVIEW: WATER AND SANITATION

Faecal Sludge and Septage Generation: ~110 KLD	Wastewater Generation: ~ 31 MLD
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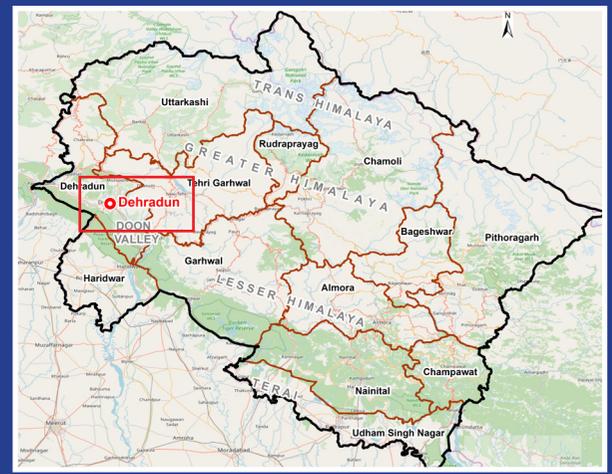
- 100% coverage | 135 lpcd**
Water Supply: 40 Tubewells and Gaula river
- Sewerage Network and Open Drains**
Greywater: Approx. 10% sewerage network laid but not STP
- 120 TPD | 100% Door to Door collection**
Solid Waste: Door to door collected waste taken to collection site for segregation and dumping at Gaula Rokhar. No treatment is being done

SFD Level : 2 - Comprehensive SFD

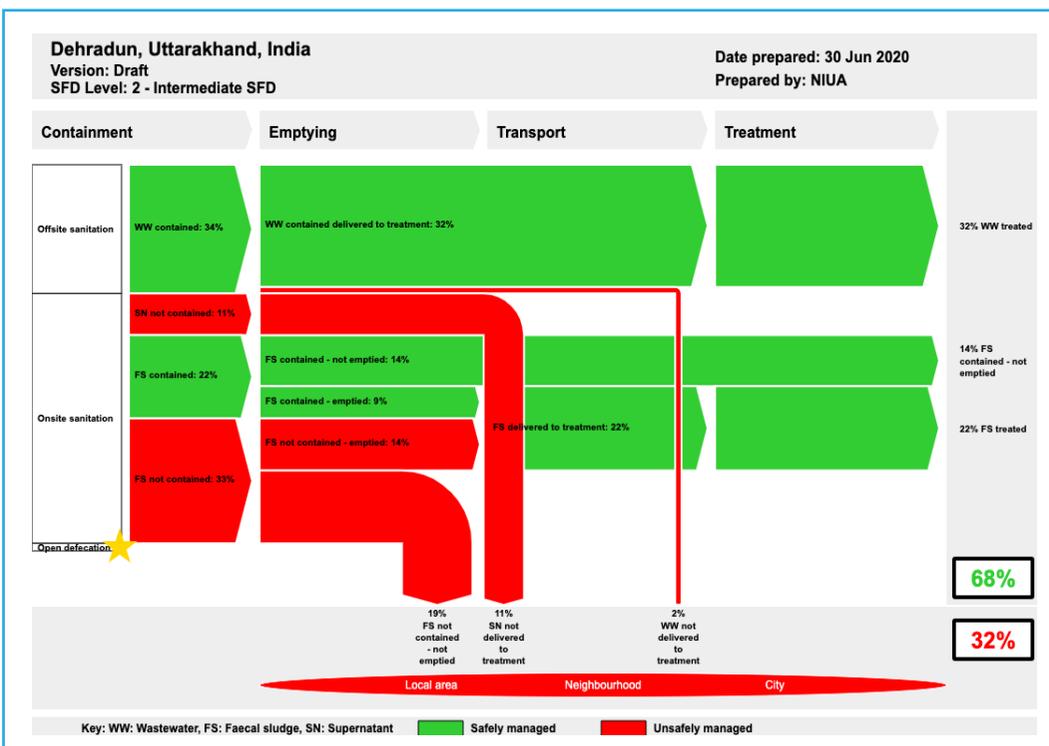
<h3>User Interface</h3> <ul style="list-style-type: none"> IHHT: 100% coverage (53962 HHs) CT/PT: 32 PTs 	<h3>Containment</h3>	<h3>Emptying</h3> <ul style="list-style-type: none"> 10% sewerage network laid but not STP currently exists Cesspool Vehicle: 16 cesspool vehicles (tractor mounted) Capacity: 4 - 6 KL Desludging: 10% through sewer network and rest through cesspool vehicles Emptying frequency: Average 4-5 years from septic tanks.
<h3>Disposal/Reuse</h3> <ul style="list-style-type: none"> Currently, the faecal sludge and wastewater are neither treated nor being reused. 	<h3>Treatment</h3> <ul style="list-style-type: none"> STP: No existing STP. 10% sewerage network laid in the city but no existing STP. 28 MLD STP is to be commissioned 	<h3>Transportation</h3> <ul style="list-style-type: none"> Cesspool vehicles empties into a designated manhole and further directed to Gaula river through existing sewer network without treatment due to absence of STP

Dehradun

Dehradun is the capital of the Indian state of Uttarakhand located near the Himalayan foothills. The city is governed by Municipal Corporation which comes under Dehradun Metropolitan Region, Uttarakhand.



Population 8,04,379	Households 1,67,577 HHs	No. of Wards 100 wards	Municipal Area 100 sq. km	Local Govt Municipal Corporation	Annual Budget (2019-20) 33 Cr. (14 th F.C.)	Septage Management cell Yes
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OVERVIEW: WATER AND SANITATION

Faecal Sludge and Septage Generation:
~320 KLD

Wastewater Generation:
~ 92 MLD

100% coverage | 135 lpcd
Water Supply: Gigoli, Masifall, Bindal and Maldevta Rivers | Tubewells

Sewerage Network and Open Drains
Greywater: Approx. 34% sewerage network

290 TPD | 100% Door to Door collection
Solid Waste: There are 3 garbage collection points in the city: Kargi Chowk, Dhoranwala and Indiranagar

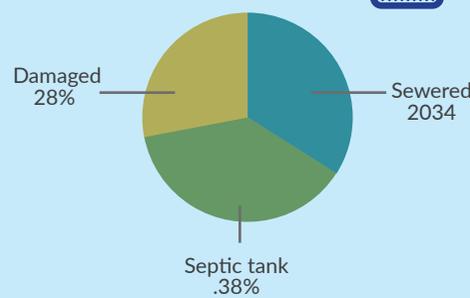
SFD Level : 2 - Comprehensive SFD

User Interface

- IHHT: 100% coverage (1,67,577 HHs)
- CT/PT: 20 PTs and 11 CTs



Containment



Emptying

- 34% sewerage coverage across 6 sewerage zones
- Cesspool Vehicle: 25-30 cesspool vehicles (tractor mounted)
- Capacity: 4 - 6 KL
- Desludging: 34% through sewer network and rest through cesspool vehicles
- Emptying frequency: Average 5-8 years from septic tanks.



Disposal/Reuse

- Treated wastewater from STPs is disposed into the river as per CPCB discharge standards
- Sewage sludge and treated water is used for gardening within STP premises



Treatment

- 7 STPs: All SBR Technology Base Kargi Chowk 68 MLD (16% utilized) Mothrowala I: 20 MLD (60% utilized) Mothrowala II: 20 MLD (25% utilized) Indra nagar: 5 MLD (20% utilized) Jakhan: 1 MLD (30% utilized) Salawala 0.75 MLD (42% utilized) Vijay colony: 0.42 MLD (71% utilized)
- No proper co-treatment infrastructure available in either STPs



Transportation

- Desludging charge: INR 1500-2200 per service
- Tipping fee charge by Kargi STP from Cesspool operator

