



People. Innovating. Sanitation.

3500 systems for water & sanitation

40 partners, 25 countries, 400 specialists

Stefan Reuter

executive Director
Reuter@borda.de

- Bremen
- Las Américas
- Africa
- Western and Central Asia
- South East Asia
- South Asia



Overview of Leh



- Altitude 12,000 feet
-30°C to +35°C
- Ancient culture
monasteries 1,000AD
- Population registered: 45,000
- In fact during Summer:
120,000
- Cleanest City in North India ; declared ODF
- Tourism has become primary economic driver
- Increasing pressure on natural resources

Sanitation in Leh

- Traditional dry toilets - ecofriendly
 - New flush toilets use septic tanks
 - New scientific landfill being developed
(1,5 mio €)
 - New projects for public toilets under development
 - Protecting underground water & rivers is critical
 - Sewerage system for 50% of city under finalization (8,5 mio €)
 - Hence FSM to cover remaining areas
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- Sewerage system: will take time & will cover 40-50% of city
 - Hotels and households already have septic tanks or soak pits
 - no standards, poorly built
 - Water table: 10-15m
 - FSM complements Sewerage System

FSTP Description

Parameters	Specifications
Capacity	12 m ³ /day
Area	624 m ²
Technology	Gravity based aerobic stabilization using Planted Drying Beds
Structure	Civil construction
Investment Cost	85.000 €
O&M Cost	14.000 € per year
Operating Life	30+ years



BOT Model

build operate & transfer model

Financing of infrastructure

1.400	hotels & guesthouses
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each emptying	50 €
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Contract duration	5 years
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Investment cost	85.000 €
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Maintenance Requirements

Cleaning pipes	monthly
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Repair pipes	2 yrs
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Desludging solids	3-4 yrs
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Clean filter materials in PGF/PDB	3-4 yrs
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Desludging of polishing pond	2-5 yrs
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A Solution – India's first PPP for FSM

A five-year partnership contract between the Municipal Committee for Leh (MCL) and Blue Water Company (BWC) outlines operating responsibilities, payment terms and revenue models:

Municipal Committee of Leh (MCL)	Blue Water Company (BWC)
provides the land for the FSTP	invests capital to construct the FSTP
provides 2 vacuum trucks for cleaning services	creates a monthly schedule and clean septic tanks
charges & collects a fee from every household, hotel and guesthouse for compulsory FSM services	pays a part of the fees collected from customers, after the septic tank is cleaned
sends customers a notice of cleaning 20 days in advance, based on schedule created by BWS	trains all employees, ensure use of proper safety gear and provide periodic health checks to operations



Master Layout of FSTP

