

sustainable
sanitation
alliance

School Sanitation in Underserved Urban Areas in India

Hanna Jaritz, Dr. Regina Dube,
Dayanand Panse, Sreevidya Satish



Published by

Sustainable Sanitation Alliance
c/o Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Sustainable Sanitation Programme

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany

T + 49 6196 79-4220
F + 49 6196 79-804220

E info@giz.de
I www.giz.de

Photo credits / Sources

© Enrico Fabian, page 16: © Hanna Jaritz

Responsible

The analysis, results and recommendations in this paper represent the opinion of the authors and are not necessarily representative of the position of the Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH.

Authors

Hanna Jaritz,
Dr. Regina Dube,
Dayanand Panse,
Sreevidya Satish

Design

Diamond media GmbH,
Neunkirchen-Seelscheid, Germany
Miria de Vogt, Susanne Wimmer

Place and Date of Publication
Eschborn, July 2015

Dayanand Panse
Sreevidya Satish
Ecosan Services Foundation (ESF)
Flat No. 1, 1st Floor, 24, Prashantnagar,
721/1, Sadashiv Peth, L.B.S.Road,
Pune - 411 030, India
E-mail: dayanand.panse@ecosanservices.org
E-mail: sreevidya.satish@ecosanservices.org

Dr. Regina Dube
Former Programme Director (until 2014)

Dirk Walther
Programme Director
Support to the National Urban Sanitation Policy
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
2nd Floor, B-5/2, Safdarjung Enclave,
New Delhi - 110029, India
E-mail: dirk.walther@giz.de

Hanna Jaritz
Consultant
On behalf of
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
Sustainable Urban Habitat
2nd Floor, B-5/2, Safdarjung Enclave
New Delhi - 110 029, India
E-mail: jaritz.hanna@gmail.com

Abstract

GIZ India is supporting the Ministry of Urban Development in various issues concerning sustainable urban development. A special emphasis is given to improve the sanitation situation for urban poor. In 2011 GIZ started the school sanitation activities together with the partners Ecosan Services Foundation (ESF), Pune and Society for Action in Community Health (SACH), Delhi. Objective of the intervention was, even with small funding, to enable selected schools in underserved urban areas to significantly improve upon their sanitation conditions, leading to 'hygienically safe operated toilets'. 47 schools were selected in five Indian cities. For assessing the status quo and later the improvements, GIZ developed a benchmark

indicator for measuring 'hygienically safe operated toilets'. The main focus of the school sanitation project was concentrated on awareness raising and capacity building. An additional activity was refurbishment of the existing school sanitation facilities. All schools showed measurable improvements on school sanitation at the end of the project. It was recognized, that school sanitation is mainly not a matter of money or technology. It is a matter of commitment and accountability. It seems that only regular supervision, monitoring and evaluation of the sanitation status in each school coupled with incentives for good performance will improve the situation.

Keywords

Capacity Building; India; Operation and Maintenance; School Sanitation; Underserved Urban Areas

ACKNOWLEDGEMENTS



Acknowledgements

This publication is the background article to one of the case stories in the SuSanA case story collection “Making WASH in Schools more Sustainable” (Vol II), which will be published later this year. “School Sanitation in Underserved Urban Areas in India” has been selected as one of the focus case stories on monitoring under the umbrella of the SuSanA Working Group 7 on school sanitation.

The SuSanA secretariat (Jona Toetzke, Jan Schlenk, Trevor Surridge and Arne Panesar) and both leads of Working Group 7, namely

Claudia Wendland and Belinda Abraham, welcome the profound insights of this article, as it is seen as highly relevant for larger scale school sanitation approaches in India and beyond.

Thanks for valuable inputs during the process of publication go to the authors Hanna Jaritz, Regina Dube, Dayanand Panse and Sreevidya Satish, to Dirk Walther for further advice, to Enrico Fabian for his photos and to those schools, who successfully participated in this project.

INTRODUCTION



Sanitation in India



As per the Census of India 2011 out of around 247,000,000 households, only 44% have improved sanitation¹, 2.9% households have unimproved sanitation, and alarming 53.1% of the households have no sanitation facilities at all (MHA 2011a). Only a single-digit percentage of the Indians without any sanitation are using public latrines. Consequently about 600 million people in India have to practice open defecation (WHO and UNICEF 2013). The ratio ‘people practicing open defecation’ to ‘total number of population in India’ decreased from 63% in 2000 to 50% in 2011 (WHO and UNICEF 2013), however it is still a very alarming state. Most of the people without any access to improved sanitation (about 76% (WHO and UNICEF 2013)) are living in rural areas.

According to the Indian Constitution, sanitation is a state-level responsibility. Therefore it is the State Government’s task to plan, finance and implement programs

for ‘water’ and ‘sanitation’ (wsp India 2011, page 21). In the 73rd and 74th Constitutional Amendments (1991, 1992) it was decided, that sanitation should be delegated to the rural self-governments (Panchayati Raj Institutions) and Urban Local Bodies (ULBs), respectively. In 1999 the ‘Central Rural Sanitation Programme’ (CRSP) was restructured to a revised demand based on a ‘Total Sanitation Campaign’ (TSC) (MoSPI 2014, page 146) launched country-wide from 2002 by a withdrawal of the ‘allocation based programme’ (MDWS 2011). In October 2003 “... an award based Incentive Scheme for fully sanitized and open defecation free Gram Panchayats, Blocks, Districts and States called ‘Nirmal Gram Puraskar’ (NGP) ... [was announced] ... and gave away the first awards in 2005...” (MoSPI 2014, page 149).

¹ “Improved Sanitation” includes: Flush/pour-flush to: piped sewer system, septic tank or pit latrine; Ventilated improved pit latrine; Pit latrine with slab; Composting toilet. (WHO and UNICEF 2014)



Urban Sanitation Scenario

As the access to improved sanitation is higher in urban areas than in rural, the national priority in investing and managing of urban sanitation was missing until beginning of 2000, even though India is witnessing rapid urbanization.

According to the Census of India 2011, 377 million people (MHA 2011b) (or 79 million households (MHA 2011a)) are living in urban areas, of which 65 million people (MHA 2013) (or about 14 million households (Chandramouli 2013)) are living in urban slums². The child population (0-6 years old) in these slums is about 8 million (MHA, 2013). The latest Census figures show, that only 63% of the urban slum households have improved sanitation facilities, one third do not have latrine facilities within the premises and of those 19% have to practice open defecation (MHA 2011c). The drainage connectivity for waste water of the urban slum households does not show a better picture: about 37% are connected to closed drainage, 44% to open drainage and about 19% are not connected to drainage (MHA 2011d).

In 2005 the Government of India (GoI) launched the 'Jawaharlal Nehru National Urban Renewal Mission' (JNNURM) initially for seven years, in which ULBs from 65 identified cities (MoUD 2014a) received financial support for improving their urban sector (MoHUPA and MoUD 2011, page 3).³

Also in 2005, and this is seen as a "... major breakthrough in the urban sanitation..." (wsp India 2011, page 25), the GoI created in cooperation with the States a National Urban Task Force, which has led to the approval of the "National Urban Sanitation Policy" (NUSP), prepared by the Ministry of Urban Devel-

opment (MoUD), in 2008. "The overall goal of this policy is to transform urban India into community-driven, totally sanitized, healthy and liveable cities and towns." (MoUD 2014b) The NUSP incorporates a paradigm shift based on the 74th Constitutional Amendment (1992) to strengthen ULBs and follows integrated concepts in the design and implementation of sanitation strategies. All states are requested to act at par with the NUSP and to develop State Sanitation Strategies (SSS). Parallel to the development of these strategies it is stipulated that all ULBs should develop their City Sanitation Plan (CSP) as a city level instrument for sanitation sector planning. The preparation of the CSP requires strong interaction with the respected state government bodies.

During the last years the attention to urban sanitation increased and awareness about challenges connected with urbanizing of India raised, however it is still a long way to achieve the vision for urban sanitation in India: "All Indian cities and towns become totally sanitized, healthy and liveable and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women." (MoUD 2014b).

Despite the slight improvements in sanitation, still there is poor coverage of sanitation facilities in urban areas, which causes serious health, environmental and also economical consequences. It is proven that "... poor sanitation links to various drivers of economic growth such as health, education and productivity" (dasra, Omidyar Network and Forbes Marshall 2012). Urban poor, women and children are those who suffer most.

Gaining Background Knowledge on the National Urban Sanitation Policy and Supporting the Linkage to School Sanitation



Since 2008 the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in India is actively supporting the MoUD in various issues concerning sustainable urban development. Through its programme 'Support to the National Urban Sanitation Policy' (SNUSP) GIZ pays special attention to the previously neglected subject of city wide sanitation by supporting states and cities to make use of the instruments created under the NUSP, namely the SSS and CSPs.

Considering that one of the specific goals of the NUSP, for reaching 100% access to improved sanitation, is 'Awareness Generation and Capacity Building', GIZ envisages amongst others schools and students as 'agents of change and transformation' in its programme.

The provision of improved sanitation facilities and proper water supply in schools is one of the first significant steps to guide children towards good sanitation practices and it is an important prerequisite for regular attendance of children (especially girls). "It is assumed that each case of diarrhoea in children of school age results in 3 days off school per case." (Hutton, Haller et al. 2007) Furthermore girl students, especially at higher levels of schooling, find it difficult to attend schools, which have no or poorly maintained sanitation facilities. The lack of adequate hygienically safe operated sanitary facilities contributes to adolescent girls' drop out of school, after they started menstruating. These facts are also recognized by the GoI and therefore, according to the Right of Children to Free and Compulsory Education Act Section 19, adequate separate toilets for boys and girls and their proper usability are mandatory for all Government Schools

in India (Ministry of Law and Justice 2009). Furthermore on 03.10.2012 the Supreme Court of India decided that (amongst others) providing toilet facilities for boys and girls and drinking water facilities within six months is a court order, which is "... applicable to all the schools, whether State owned or privately owned, aided or unaided, minority or non-minority." (Supreme Court of India 2012)

To effectuate a quantifiable achievement in the provisions and practices of school sanitation in the country, the National School Sanitation Initiative (NSSI) was launched in April 2011 by the MoUD, Ministry of Human Resource Development (MHRD), Central Board of Secondary Education (CBSE) with technical support of GIZ. Furthermore a famous Bollywood actor was appointed as School Sanitation Ambassador.

Under NSSI all schools in India⁴ were asked to focus on practical aspects of sanitation like laying emphasis on personal hygiene, clean toilet habits, separate toilets for girls, safe drinking water. Schools are requested to register on <http://www.schoolsanitation.com> and fill in a gender-sensitive questionnaire regarding their current sanitation situation to get a feedback on how to improve. As a result schools receive a rating in five colour categories (from 'red' = 'Grim - needs immediate action' to 'green' = 'Excellent! Keep it up!') corresponding to infrastructure, institutional responsibility, environmental sustainability, health & hygiene and pedagogics (GIZ 2012).

Through the online rating, which is accessible for everyone, a database has been created that allows statistical statements on

² About 36.1% households (HH) in notified slums, 27.6% HH in recognized and 36.3% HH in identified slums; see: (Chandramouli 2013).

³ The remaining cities get support through the "Urban Infrastructure Development Scheme for Small and Medium Towns" for seven years (start 2005-06), see: http://urbanindia.nic.in/programme/ud/uidssmt_pdf/overview.pdf, accessed February 2014.

⁴ In 2010-11 the total number of schools was 1,400,000 (MoHRD 2014).

the sanitation situation in Indian schools. At the same time the initiative sought to support schools in concrete improvement measures by providing manuals, handbooks and other materials. A special e-learning course for teachers has been developed and tested by 'Ecosan Services Foundation' (ESF), Pune, who was a cooperation partner to this initiative right from its inception.

Although NSSI could not incorporate all the schools till now, the initiative is a positive step forward in order to produce tangible improvement of hygiene and gender adequate access to school sanitation, awareness generation on sanitation and hygiene issues to school children, teachers, principals, administrative staff and parents.

Overall Approach and Method Development

GIZ started in 2011 the school sanitation activities with the aim to enable, even with comparatively small funds, selected schools in underserved urban areas to significantly improve upon their sanitation conditions, leading to hygienically safe operated toilets.

For measuring the improvements on school sanitation at the end of the project, GIZ developed a benchmark indicator for measuring 'hygienically safe operated toilets'. This indicator broadly covers the following subjects: (1) Availability of Sanitation Infrastructure, (2) Operation and Maintenance (O&M) Systems in Place (see also page 11) and (3) Appropriate Usage by Children. The parameters for achieving the GIZ benchmark indicator on 'hygienically safe operated toilets' were deliberately kept simple so that all the stakeholders could understand the evaluations. From 30 achievable points, schools were supposed to achieve at least 20 points. However 'simple' does not mean

superficial. In addition to reach at least 20 points, the sub-indicators "separate toilets existing for boys and girls", "water availability throughout the day" (at least five litres per child per day), "appropriate mechanism of the disposal of wastewater from the toilets and its maintenance" and "no instances of defecation and/or urination in the open space" had to be achieved also to meet the GIZ benchmark indicator. In contrast to the formal NSSI norms (MoUD and MoHRD 2010, page 12ff) particular attention was paid to e.g. supervision and reporting mechanisms for cleaning staff, responsibilities, budgets in regard to school sanitation, students' and teachers' participation in improving school sanitation.

The focus on O&M was purposely chosen, as it forms the backbone for clean toilets, even if the compliance with formal construction standards is not feasible in a short run.

School Sanitation Indicator Sheet
Name of the School

School Brief:
Key Information:
Total number of students:
Total no. of teaching staff:
Total no. of non-teaching staff:
Categories of school affiliation:
CSSI/ State Board:
Total area of school:
NSSI Registration Number

Indicator: (30 schools in the underserved urban areas of the 5 target cities operate hygienically safe toilets). For measuring indicator fulfillment, a convention has to be found, data of the overall survey to be used for measuring its baseline. The convention will cater roughly to three groups of questions.
Q Quantity and the Quality of the Infrastructure.
O Operation and Maintenance System in Place
U Appropriate Usage by Children
The benchmark indicators for measuring *hygienically safe operated toilets* will be used as process indicators for comparing the future improvements. The selected indicators include the comparing of the actual situation with the National School Sanitation Initiative (NSSI) norms for this issue. In case, the NSSI standards do not exist, this paper suggests additional GIZ benchmark indicators for assessment. Performance will be measured against 3 rating categories as given below)

FINDINGS WITH REGARD TO AVAILABILITY OF SANITATION INFRASTRUCTURE

MINIMUM TARGET	Sl.No.	Parameter	Base Data	Defined Standards	Rating	Remarks
++	1	Separate toilet seats existing for boys/girls		It is mandatory to have separate toilets for girls in the school (NSSI norms)	+ + -	
	2	No. of toilet seats (for boys/girls & teachers)		1 toilet seat for every 40 girls + lady teacher / 1 toilet seat for every 80 boys + male teacher (according to NSSI norms) ⁴⁾	+ + -	
	3	No. of urinals (for boys/girls & teachers)		1 urinal for every 20 boys / 1 urinal for every 20 girls with partitions (NSSI norms)	+ + -	
++	4	Water availability throughout the day		Minimum 500 litres for a school up to 100 children including buffer reserve. At least 5 litres per child to be provided. (NSSI norms)	+ + -	
	5	Tap in each toilet		At least one tap in each toilet (NSSI norms)	+ + -	
+	6	Availability of wash basins /Hand wash facility with each toilet block		Minimum of 2 (NSSI norms) (including buckets/ mugs)	+ + -	
+	7	Provision of soap		With every hand wash facility	+ + -	
+	8	Condition of superstructure of the toilet block		Minimum should be fair (GIZ standard); (including 1 opening for ventilation in each toilet/urinal (NSSI norms), 1 door for each toilet seat; doors with child accessible latching arrangement)	+ + -	
++	9	For girls: bucket with cover for disposal of sanitary napkins		1 bucket with cover for the disposal of sanitary napkins in each girl's toilet seat (GIZ standard)	+ + -	

⁴⁾ Since this indicator focuses on *hygienically safe operation of toilets*, the number of toilet seats are recorded but not considered for measuring in compliance with set targets related to *hygienically safe operation of toilets*

FINDINGS WITH REGARDS TO O&M SYSTEMS IN PLACE

MINIMUM TARGET	Sl.No	Parameters	Base Data	Defined Standards	Rating	Remarks
+	10	Supervision and reporting mechanisms for cleaning staff		Yes (GIZ standard) or nominated (cleaning staff appointed with decent working conditions (incl. regular supply of phenyl), cleaning powder, broom etc.); cleaning staff under guidance of a respective supervisor (from the school)	+ + -	
+	11	Appropriate maintenance plan in existence		Yes (GIZ standard); (including clear roles and responsibilities; budgets; reporting mechanisms)	+ + -	
+	12	Teachers and students involvement in O&M		(Parent-Teacher-Association-Eco-Health Club in existence and active; mechanisms for student orientation through trained teachers)	+ + -	
++	13	Visible cleanliness of the toilets		As per the Focus Group Discussion (GIZ Standard); (includes condition of the toilet seat; presence of odour)	+ + -	
++	14	Disposal of wastewater from the toilets and its maintenance		(Wastewater to be disposed through septic tank, sewerage or any other mechanism/suitable cleaning of septic tank as applicable)	+ + -	

OVERALL STATUS: APPROPRIATE USAGE BY CHILDREN

MINIMUM TARGET	Sl.No	Parameters	Base Data	Defined Standards	Rating	Remarks
+	15	Overall status of hygienically safe operated toilets in the school: views of O&M Staff & Teachers		As per the Focus Group Discussion: Minimum should be fair (GIZ standard); (including hand washing with soap by children -flushing the toilet after use/children's participation in maintenance of infrastructure)	+ + -	
+	16	Overall status of hygienically safe operated toilets in the school: views of students		As per the Focus Group Discussion (FGD) (GIZ standard); (including hand washing with soap by children -flushing the toilet after use/children's participation in maintenance of infrastructure)	+ + -	
++	17	Instances of defecation or urination in open space		As per the Focus Group Discussion (Norm-No open defecation)	+ + -	

Use of rating categories: The assessor will use the standards and other descriptions provided in 1), above to come to a rating for the respective school. The idea of using the rating is to make a comparison with future improvement and to show indicator fulfillment. As per given list of 17 benchmarks the respective school needs to have 22 points (+).

The Component indicator shall be considered as achieved if 30 schools in underserved areas of 5 cities meet the following conditions: Minimum no. of points achieved: 20 and sub indicators no. 1 (separate toilets for boys and girls existing), 4 (sufficient water available), 14 (wastewater disposal) and 17 (no open defecation) are as per norm (+).

++ - Good- as per the norm
+ - Fair- Partially meeting the norm
- - Bad- Well below norm

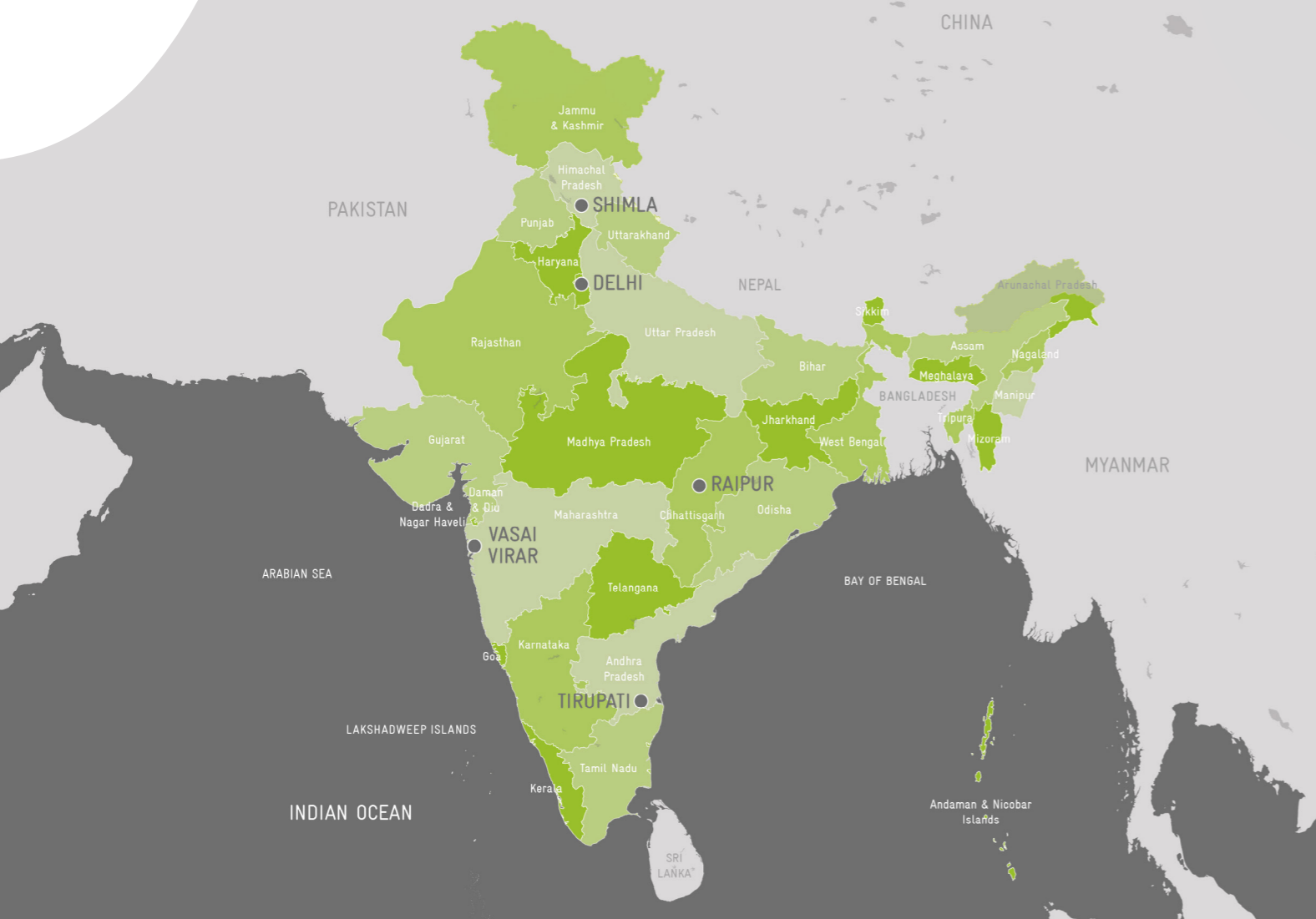


Figure 1: GIZ School Sanitation Project Cities

Field Research

GIZ conducted a baseline survey on the existing sanitation scenario in 80 schools in underserved areas in following cities: Delhi, Mysore, Nashik, Raipur, Shimla, Tirupati, Vasai Virar and Varanasi. From these 47 schools were selected for interventions in five Indian cities (Delhi, Raipur, Shimla, Tirupati and Vasai Virar) in cooperation with local partners.

Before the GIZ intervention started, all finally selected 47 schools in underserved areas were evaluated according to the above

mentioned benchmark indicator on 'hygienically safe operated toilets'. The survey showed, that in all selected schools the sanitation facilities and the knowledge about hygiene were in a poor condition. None of the schools were close to achieving the GIZ indicator. This result reflected also in the schools' respective NSSI rating: 39 schools out of 47 had a 'red' rating, indicating a grim school sanitation situation. The main weaknesses were found on 'infrastructure' and 'O&M' of the school sanitation facilities:

Infrastructure

- Toilet facilities for students were few in number.
- Separate toilet facilities for girls did not exist in many of the selected schools.
- No water and no power supply throughout the whole day.
- Less water storage capacities.
- Most of the toilets were dark, without any functioning lighting and not ventilated.
- Most of the toilet seats were not equipped with water supply for flushing; even other flushing mechanisms like a water tap with a bucket were missing.
- Toilet doors (if functioning) were not equipped with child accessible latches.
- Appropriate hand wash facilities including provided soaps with each toilet block mostly did not exist.
- Only few of the schools had a facility for safe drinking water.

O&M

- None of the 47 schools had a clear definition of roles and responsibilities for the key responsible parties in each school on school sanitation.
- Most of the school sanitation facilities were poorly maintained.
- Only in private schools the sweepers are employed by the school itself; sweepers, who are working for government schools are usually employed by the respective ULB and the ULB assigns the respective schools to the sweeper.
- In most of the schools only one, maximum two sweepers worked for few hours per day and had to clean the class rooms, tables, principal's room, halls and also the toilet facilities.
- The schools did not provide the sweepers with appropriate cleaning equipment.
- Due to water shortages and only rudimentary cleaning equipment it was impossible for the sweepers to clean the toilet facilities properly.
- Monitoring and reporting mechanisms for the status of the school sanitation facilities were missing; necessary repair works did not take place. ▶

Separate budget for school sanitation facilities were not incorporated in the schools' yearly finance plans.

Most of the school authorities did not have any knowledge about the schools' wastewater disposal; wastewater pipes were broken or missing and most of the connected septic tanks were not maintained properly.

All the above-mentioned issues coupled with mostly little to no acceptance of responsibility from the school authorities, led to unsafe and unhygienic school toilet facilities. Thefts and vandalism of sanitary fittings, pipes, washbasins, urinals etc. worsened the situation additionally. Most of the students, especially those who did not even have improved sanitation facilities at home, did not know how and to whom they should address the problems regarding unusable school toilet facilities.



Project-Based Activities in the Selected 47 Schools

As cooperation partners GIZ had chosen the non-governmental organizations (NGOs) ESF, Pune and 'Society for Action in Community Health (SACH), Delhi' for the interventions in the selected 47 schools.

ESF was responsible for the hardware implementations in cooperation with local plumbers and masons in all 47 schools, which implied detailed planning, monitoring and supervision of the refurbishment works at each school. Furthermore ESF developed and conducted special trainings, workshops and awareness raising activities for teachers and students in the cities Raipur, Shimla, Tirupati and Vasai Virar.

SACH was contact partner for the schools in Delhi, in which the NGO conducted different awareness raising activities for teacher, students and sweepers, with special emphasis to child-to-child approaches.

One of the main conditions for the selected schools, to be part of the project, was the signed 'Letter of Intent' by each school management. With this signature each of the schools committed itself to work in coopera-

tion with GIZ and to provide all necessary administrative support including regular O&M of the sanitation and hygiene facilities in the respective schools.

The activities in each of the 47 selected schools started with a detailed identification of the current status of the school sanitation, the water infrastructure and the awareness amongst teachers and students. Together with the school management, challenges regarding 'hygienically safe operated toilets' in the respective schools were identified vis-à-vis the defined criteria. On this basis, School Action Plans (SAPs) for each selected school were created. Each school specific SAP defined in detail:

The status quo and the gaps regarding school sanitation,

The refurbishment and installation works for the school's sanitation and drinking water facilities to be financed by GIZ,

► The respective trainings and awareness activities (with the aim of improving processes and increasing accountability in each school for an optimized O&M) and

— The roles and responsibilities of the consultant appointed by GIZ as well as of the school authority.

In summary each SAP formed the basis for the school specific interventions.

The main focus of the GIZ school sanitation project in the 47 schools was concentrated on awareness raising and capacity building. Therefore different trainings and awareness raising methods were used, to incorporate all stakeholders. ESF and SACH conducted three workshops for all schools in every selected city: two teachers' and one students' workshop.

For the teachers' workshop, two teachers were selected from each school and trained to be the school's contact and knowledge persons with regard to school sanitation and hygiene in future. In every selected city 20-30 teachers attended these workshops with following trainings on:

— Basics of health and sanitation,

— Concept of school-based sanitation approaches,

— Behavioural change: demonstration of theme-based or activity based tools that can be used by teachers and

— Targeting support for improving O&M for school sanitation.

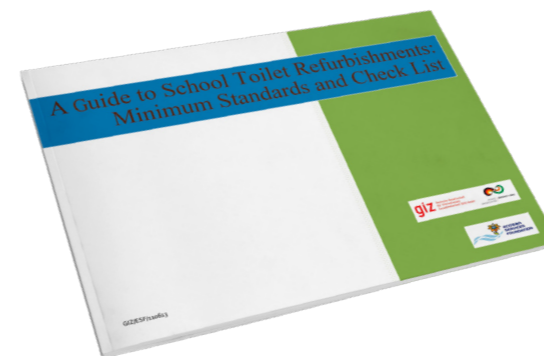
In the separate students' workshops, organized in each city, students discussed about appropriate use of school toilet facilities and behavioural change for a healthy life. Furthermore some of the discussions were organized separately for girls in order to give them space to speak up about their special needs.

As a special awareness raising activity GIZ engaged the NGO 'Earthcare Outreach Trust' (ECO), Delhi to conduct an eight-day filmmaking workshops in 4 of the selected schools at Delhi, Raipur and Shimla. About ten students from each school were selected for participating in one of these filmmaking workshops on the subject of school sanitation. The final product, a collection of four short films, is a well received documentary film on the various children's visions on sanitation (GIZ 2013).

In parallel with the start of the different workshops, the hardware material for the school toilets refurbishments according to the SAPs were procured and a start date for the installation was agreed with the respective schools. All these implementation activities were monitored and evaluated by ESF.

In all five cities it was a real challenge to find reliable and well-trained plumbers who were willing to do the refurbishment and installation work of the sanitation facilities in the selected schools. According to the prepared SAPs the work which had to be done, was clearly mentioned. However the experiences showed in all cities, that plumbers'

knowledge was missing in regard to sanitary fittings, proper installation in a child-friendly and vandal-resistant way. GIZ together with ESF developed a 'Minimum Standard Document for School Toilet Refurbishment' with detailed descriptions of the work steps, drawings and photos. Combined with a very intensive and time consuming supervision and monitoring of the hardware implementation in each school at short intervals and multiple reworks, the plumbing work was done in an appropriate way.



The refurbishment and installation works were completed with the signed 'Handing Over Document' by the respective school authority and ESF. With the signature the school management accepted all the sanitation

refurbishment works, committed to improve sanitation and hygiene in the school with the aim to maintain hygienically safe operated toilets and to provide all necessary administrative support regarding regular O&M of the sanitation facilities in the school.

All the school sanitation facilities of each of the 47 schools were evaluated by independent consultants vis-à-vis the above-mentioned GIZ benchmark indicator on 'hygienically safe operated toilets'. All schools showed measurable improvements on school sanitation at the end of the project. Final events in every city in the presence of commissioner, mayor, councillors and/or educational officers concluded the project. The highlight of the events was a special recognition to those schools, which already achieved the set GIZ benchmark. These schools were especially mentioned as 'early birds' and awarded a certificate for their good performance. Furthermore these events were also used for launching the GIZ awareness materials on school sanitation, like the children's book 'Ayush in the News' (a children's book on school sanitation, which communicates the importance of hygiene and improved sanitation in schools).



RESULTS



Facts and Figures

The duration of the GIZ project on school sanitation was from April 2011 till March 2014.

In total about 21,000 students (about 11,000 girls and 10,000 boys) could benefit from the GIZ school sanitation project. The numbers of students, broken down according to the five cities, were as follows:

S.No.	City	No. of Schools	Number of Students		
			Total	Girls	Boys
1	Delhi	6	3.800	1.400	2.400
2	Raipur	10	5.700	3.300	2.400
3	Shim-la	12	4.400	2.400	2.000
4	Tiru-pati	10	3.600	2.100	1.500
5	Vasai Virar	9	3.500	1.800	1.700
Total		47	21.000	11.000	10.000

⁵ Calculated with an average exchange rate of 1:78 (year 2013); see <http://www.ozforex.com.au/forex-tools/historical-rate-tools/yearly-average-rates>, 20.04.2014.

The type of schools varied from Primary Schools to Senior Secondary Schools. Therefore the students ranged in age from 6 to 18.

The intense work and cooperation with all the school authorities, teachers, students and plumbers took 1.5 years (September 2012 – March 2014).

The costs for hardware procurement, school toilet refurbishments, installations of hand wash facilities and water purifiers amounted to about INR 50,00,000/- (EUR 64,100/-). That means that on average the expended costs for procurement and hardware installation were approximately INR 1,06,000/- (EUR 1,360/-) per school or about INR 240/- (EUR 3.10) per student.⁵

In contrast the costs for trainings as well as for supervision and monitoring of the hardware installations at the 47 schools were twice as high as the costs for procurement and installation. This shows that the time and financial effort for successful training, monitoring and supervision are comparatively high and should not be underestimated.



Impacts

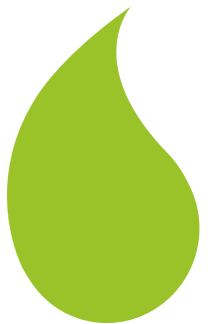
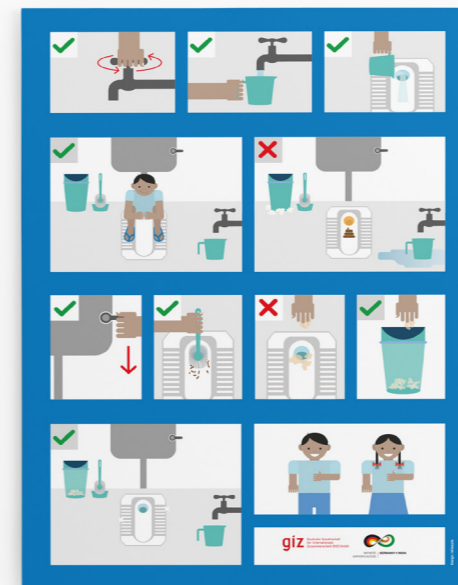
All selected 47 schools showed a clear improvement on school sanitation in comparison to the start of the GIZ project, even if only some of those (in total 30 schools) achieved the set GIZ benchmark.

Despite the relative small funding the project was a success. And also the NSSI re-rating of the selected schools on 'www.schoolsanitation.com' showed an improvement concerning the adherence to the NSSI norms. Two schools received a 'blue' rating and only ten schools out of 47 had still a 'red' rating.

Most of the principals and teachers, who were reluctant in the beginning of the project, were pleasantly surprised about the final results. They appreciated the trainings on hygiene and sanitation and the refurbishment of their existing school sanitation facilities.

Some school staff and students even welcomed, that the GIZ endeavour provided the crucial impetus for dealing with all the issues around school sanitation.

Measurable improvements could also be achieved on special gender issues. In nearly all schools girl students now have their own toilet facilities with water supply (at least one tap at each toilet seat) including a proper implementation of signage. However the disposal of sanitary napkins is still a problem for girls. Only ten schools provided a bucket with cover for the disposal of sanitary napkins at each girl's toilet seat. In the majority of schools appropriate buckets with cover were missing, even close to the hand washbasins.



'Teething Troubles'

Not all pre-selected schools were open towards the GIZ school sanitation project. Knowing that the 'Letter of Intent' will be also shared with the respective municipal authority, unfortunately some of the pre-select-

ed government or government-aided schools declined to make the written commitment to improve school sanitation facilities and hygiene conditions in their schools.

Children as 'Agents of Change'

Talking about children as "Agents of Change" (MoUD and MHRD 2010, page 4; UNICEF 2006) is a good approach, but without allowing students the possibility to be free to express their views critical of the school sanitation facilities in day-to-day school life, it will remain an empty phrase. The students' voices need to be heard, only then they will become 'Agents of Change'. There is a need to develop an environment for the students, in which they are encouraged to express themselves, where respective teachers are listening and taking up the issues together without fear of detriment. This

requires a change of the very common teaching approaches based on direct instruction or lecturing. The teachers need to be trained to develop the students' creative, innovative and critical skills. Of course this change cannot be achieved overnight, but students need role models and an acknowledgement that their voice and opinion is heard and that they can make a difference. Without any positive feedback and support, students may add to the pessimistic impression that nothing can be changed and this is the worst supposition to become an 'Agent of Change'.



Need for Training on School Sanitation for Plumbers

The refurbishment and installation works showed that there is an urgent need in suitable trainings for plumbers. Most of the plumbers engaged in the project were self-taught or learned from the older ones on how to make it. Only few of them could read and write, proper tools were missing, and the knowledge about plumbing work in schools was very poor.

On city level according to the number of schools a sufficient number of plumbers needs to be selected and special trainings need to be conducted for them. These school sanitation plumber trainings should comprise general knowledge transfer in water supply and sewage management and special knowledge transfer regarding the usage of durable materials, vandal-proof installations

and child friendly mounting of fittings. In addition commercial trainings should be conducted (e.g. learning of how to create an invoice). A list of the accredited plumbers should be shared among all schools in the respective city.

The availability of trained plumbers for school sanitation requires support of capacity building activities under CSP and overall policy support from the SSS through appropriate coordination between departments of vocational technical training, basic education and urban development. All details relating to school sanitation plumbers should be regulated accordingly in the CSPs or at state level in the SSSs under the NUSP.

Accountability Among All Stakeholders

However the above-mentioned proposal is only realizable, if all different stakeholders (students, teachers, principal, sweepers, plumbers, municipal officials and parents) work hand-in-hand. And that leads to the major pillar of a successful improvement in school sanitation: accountability among all stakeholders.

The different GIZ interventions for improvement of sanitation showed in a large number of selected schools, that sensitization of teachers and principals with regard to school sanitation is still not very pronounced. Detailed evaluations during and after the interventions have shown, that government schools in particular are struggling with other challenges and are not so much focused on sanitation issues. As a result of this even the school authorities were often not aware about the status of the students' toilet facilities and did not feel responsible for establishing of a sustainable O&M system for their school sanitation facilities.

Prominent examples like:

- Closed students' toilets during the school time in order to avoid cleaning and maintaining,
- Converting of nicely refurbished students' toilets into teachers' toilets,
- Students' toilets are in a neglected, filthy and totally unhygienic state and will be only cleaned, if an evaluation on school sanitation lies ahead and
- Insufficient O&M of the school toilets (septic tanks without proper ventilation system; electrical wires are not insulated and loosely installed in schools' wet rooms)

need to be repealed immediately. Otherwise the vicious circle continues: because of the neglected state of the school sanitation facilities, students will find it difficult to identify themselves with their school and it will not be easy for them to address school sanitation issues.



CONCLUSION

REFERENCES



The project has shown that in all the five cities across India school sanitation is mainly not a matter of money or technology. It is a matter of commitment and accountability.

Only regular supervision, monitoring and evaluation of the sanitation status in each school coupled with incentives for good performance will improve the situation. These steady assessments, combined with detailed feedbacks to the respective school authorities as well as to the respective municipal officials, may help - step by step - that the preoccupation with school sanitation issues will become second nature to all stakeholders.

As Jean Drèze and Amartya Sen rightly say, “There is no ‘magic bullet’ that can single-handedly bring more accountability into practice...” (Drèze and Sen 2013) however a combination of different approaches consisting of:

- Removal of taboos about urban sanitation facilities in schools through capacity building and special awareness raising materials,
- Involvement of all stakeholders in the process for improving school sanitation,
- Creation of good labour practices for the sweepers at school (working clothes, proper working and cleaning materials, water supply etc.)
- Implementation of special plumbers’ trainings on school sanitation,
- Pressure from the civil society including mechanism for evaluation and monitoring and
- Introduction of special school incentive system for good performance on school sanitation through school administration and/or the municipal corporation

can make a difference.

Chandramouli C. 2013: Housing Stock, Amenities & Assets in Slums – Census 2011. Census of India 2011, Registrar General & Census Commissioner, India, March 2013, pages 12, 13; http://www.google.de/url?sa=t&url=http%3A%2F%2Fcensusindia.gov.in%2F2011-Document%2FOn_Slums-2011Final.ppt&ei=bDQQU6vsF0TBrAeP_YGoAQ&usq=AFQjCNGnf_hfXeHmMx-ebHkFNWljRjRX9l5Q&bvwm=br.61965928.d.bmk (accessed February 2014)

dasra – catalyst for social change, Omidyar Network and Forbes Marshall 2012: Squatting Rights – Access to Toilets in Urban India. page 3, http://www.dasra.org/pdf/SquattingRights_Report.pdf (accessed February 2014)

Drèze J. and Sen A. 2013: An Uncertain Glory – India and its Contradictions. Penguin Books Ltd., London, page 105

GIZ 2012: Get your school sanitation rating now! <http://www.schoolsanitation.com/pdf/leaflet.pdf> (accessed April 2014)

GIZ 2013: Breaking Boundaries – Children’s Vision on Sanitation. GIZ ECO Project on Sanitation, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, New Delhi, <http://www.youtube.com/watch?v=KK1tE5L7LM> (accessed April 2014)

Hutton G., Haller L., Bartram J. 2007: Global cost-benefit analysis of water supply and sanitation interventions. Journal of Water and Health, 05.4, World Health Organization, Geneva, page 486, <http://www.invaponline.com/jwh/005/0481/0050481.pdf> (accessed March 2014)

MDWS 2011: Report of Working Group on 10th Plan for DDWS 2002-07. Department of Drinking Water & Sanitation, Government of India, page 49; http://mdws.gov.in/hindi/sites/upload_files/ddwshindi/files/pdf/Department%20of%20Drinking%20Water%20and%20Sanitation%20-%20Agenda.pdf (accessed April 2014)

MHA 2011a: Houses, Household Amenities and Assets – Availability and type of latrine facility: 2001-2011. Census of India 2011, Office of the Registrar General & Census Commissioner, India, Ministry of Home Affairs, Government of India, http://censusindia.gov.in/2011census/hlo/Data_sheet/India/Latrine.pdf (accessed February 2014)

MHA 2011b: India Profile. Final Population Totals, Census of India 2011, http://censusindia.gov.in/2011census/censusinfodashboard/stock/profiles/en/IND_India.pdf (accessed February 2014)

REFERENCES

- MHA 2011c: HH-8: Slum Households by availability of type of latrine facility. Census of India 2011 - HH-Series Slum Tables, page 1, http://www.censusindia.gov.in/2011census/blo/Slum_table/bl-slum/SHH2808-crc.pdf (accessed February 2014)
- MHA 2011d: HH-9: Slum Households by availability of bathing facility and type of drainage connectivity for waste water outlet. Census of India 2011 - HH-Series Slum Tables, http://www.censusindia.gov.in/2011census/blo/Slum_table/bl-slum/SHH3109-crc.pdf (accessed March 2014)
- MHA 2013: Primary Census Abstract for Slum. Census of India 2011, Office of the Registrar General & Census Commissioner, India, New Delhi, page 8, <http://www.censusindia.gov.in/2011-Documents/Slum-26-09-13.pdf> (accessed February 2014)
- Ministry of Law and Justice 2009: The Right of Children to Free and Compulsory Education Act, 2009. No. 35 of 2009, Ministry of Law and Justice, Government of India, page 12, <http://ssa.nic.in/rte-docs/free%20and%20compulsory.pdf> (accessed February 2014)
- MoHRD 2014: Statistics of School Education 2010-11. Ministry of Human Resource Development, Bureau of Planning, Monitoring & Statistics, Government of India, New Delhi, 2014, page 1, http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/SES201011.pdf (accessed October 2014)
- MoHUPA and MoUD 2011: Jawaharlal Nehru National Urban Renewal Mission – Overview. Ministry of Housing and Urban Poverty Alleviation and Ministry of Urban Development, Government of India, pages 3, 5, 6, <http://jnnurm.nic.in/wp-content/uploads/2011/01/PMSpeechOverviewE.pdf> (accessed February 2014)
- MoSPI 2014: Millennium Development Goals – India Country Report 2014. Social Statistics Division, Ministry of Statistics and Programme Implementation, Government of India, pages 146, 149, http://mospi.nic.in/Mospi_New/upload/mdg_2014_28jan14.pdf (accessed April 2014)
- MoUD and MoHRD 2010: National School Sanitation Manual. Ministry of Urban Development and Ministry of Human Resource Development, Government of India, pages 4, 12ff., http://www.schoolsanitation.com/pdf/document/1309769575PDF00000002NSSI_ManualBook.pdf (accessed March 2014)

MoUD 2014a: Jawaharlal Nehru National Urban Renewal Mission. Ministry of Urban Development, Government of India <http://jnnurm.nic.in/mission-cities.html> (accessed April 2014)

MoUD 2014b: National Urban Sanitation Policy. Ministry of Urban Development, Government of India, New Delhi, page 7, http://moud.gov.in/sites/upload_files/moud/files/NUSP_0.pdf (accessed September 2014)

Supreme Court of India 2012: In the Supreme Court of India, Civil Original Jurisdiction, Writ Petition (Civil) No. 631 of 2004. Environment & Consumer Protection Foundation (Petitioner) versus Delhi Administration & Ors. (Respondents), page 12, <http://judis.nic.in/supremecourt/imgs1.aspx?filename=39616> (accessed March 2014)

UNICEF 2006: Making children the change agents. UNICEF, India, http://www.unicef.org/india/wes_2438.htm (accessed March 2014)

WHO and UNICEF 2013: Progress on Sanitation and Drinking-Water - 2013 Update. World Health Organization and UNICEF, Geneva, page 22, http://www.wssinfo.org/fileadmin/user_upload/resources/JMPReport2013.pdf (accessed February 2014)

WHO and UNICEF 2014: WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation. see: <http://www.wssinfo.org/definitions-methods/watsan-ladder/>, <http://www.wssinfo.org/definitions-methods/watsan-categories/> (accessed February 2014)

wsp India 2011: Economic Impacts of Inadequate Sanitation in India – Flagship Report. Water and Sanitation Program India, New Delhi, pages 21, 25, http://www-wds.worldbank.org/external/default/WDSContentServer/WDS/IB/2012/04/19/000356161_20120419021156/Rendered/PDF/681590WSP0Box30UBLIC00WSP0esi0india.pdf (accessed February 2014)

Working Group 7 “Community, rural and schools”

Working Group 7 tries to raise general awareness for community and rural sanitation by creating discussion fora and enhancing networking opportunities. The aims of these activities are to encourage research and innovations, and to encourage community members to advocate and engage in policy dialogues. Another important aspect is to strengthen school sanitation within community structures, and to show the link of improved school sanitation with academic performance particularly for education of girls and the rural poor.

Sustainable Sanitation Alliance (SuSanA)

SuSanA is an open international alliance since 2008 with members who are dedicated to understanding viable and sustainable sanitation solutions. It links on the ground experiences with an engaged community made up of practitioners, policy makers, researchers, and academics from different levels with the aim of promoting innovation and best practices in policy, programming and implementation.

The overall goal of the SuSanA is to contribute to the achievement of current and future international development goals (MDGs, post-2015 process, SDGs) by promoting a systems approach to sanitation provision taking in consideration all aspects of sustainability.

**Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH**

Sustainable Sanitation Programme

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany

T + 49 6196 79-4220

F + 49 6196 79-804220

E info@giz.de

I www.giz.de



giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Ecosan Services Foundation (ESF)

Flat No. 1, 1st Floor, 24, Prashantnagar,
721/1, Sadashiv Peth, L.B.S. Road
Pune, 411 030, India

T + 91 20 64 000 736

F + 91 20 24 530 061

E ecosan@ecosanservices.org

I <http://www.ecosanservices.org>

