

NAGESHWARA CHARITABLE TRUST (NCT), SANISHOP INDIA, EKUTIR



Project	Rural Sanitation Programme
Organization	NCT and Sanishop (with partner eKutir, WTO and Unilever with implementation support from local consultancy Sattva)
Geography	India
Areas	Rural
Solution	Individual
Date started	2009
Stage	Scale-up
Scale	7,000 toilets



NCT-Sanishop toilet. Source: Hystra

Project description

History of organization

SaniShop is an initiative of the World Toilet Organization (WTO) started in 2008 in Cambodia to promote the sales of affordable home toilets. The initial pilot launched in late 2009 was purely grant-based (funded by USAID), before SaniShop decided to start a new market-based initiative using a franchise model, piloted in 2012 in Cambodia. Sanishop started to expand in India in 2010, and is currently also building school toilets in South Africa with support from local players for funds and technical assistance.

In 2012, WTO partnered with eKutir, an Indian social enterprise, which manages the funds and implementation of Sanishop in India. eKutir selects local partners who can implement the project in various Indian states, among organizations that are trusted by the communities, have contacts with masons and often enable consumer funds for sanitation. Sattva, a project management unit engaged by eKutir for coordination, is further tasked with strengthening the sanitation supply chain and building the capacity of the local partners in various Indian regions.

Nageshwara Charitable Trust (NCT) is the partner to eKutir for sanitation in Maharashtra, with funding from Unilever. NCT is an NGO started in 1999 to form and support Self-Help Groups (SHGs) in Maharashtra and Madhya Pradesh.

Between 2002-2013 the NGO has formed around 12,500 SHGs of 12 persons on average, or 150,000 women. It counts today 67 field officers exclusively for its sanitation initiative out of its total 125 field officers supporting SHG. Initially focused on organizing the groups and financing entrepreneur loans, NCT conducted a study in 2008 on the key needs of its members and found that 77% did not have access to toilets, and that the main reason was unavailability of consumer finance. NCT thus tested a toilet loan in 2009 (100 loans, financed by the National Bank for Agriculture and Rural Development - NABARD). The pilot proved conclusive and NABARD increased its amount of refinancing lines to reach a total commitment of \$1.6m at end 2013, while NCT trained masons in toilet design to ensure quality latrines would be built and used its SHG officers to spread the word on sanitation (and availability of toilet loans). Today NCT has financed 5,790 toilets directly, and guaranteed loans provided by the State Bank of India and the Bank of India together for another 1,200 of their SHG members.

Value proposition and profile of customers

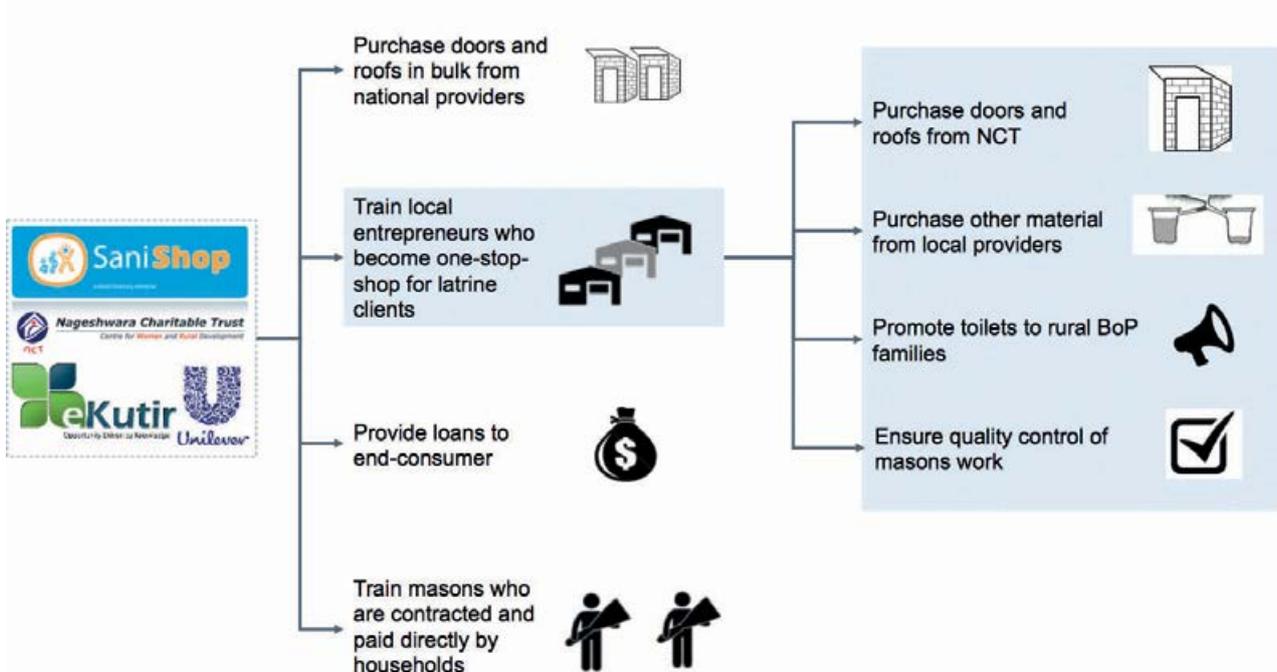
» *Initial NCT model:* The real value that NCT brings to its SHG members is (1) making financing available for latrines, which no bank or MFI would otherwise fund (as this is not a productive investment), for families for whom a latrine corresponds to 2-3 months of household income; and (2) conditioning release of the funds to the construction of the latrine, to ensure the loan is used for that very purpose.

- 1) SHG members are offered a loan to build a pit latrine outside their home. Clients must dig the pit themselves (or pay masons to do it, a ~\$20 job), which counts as 'down payment' to avail a loan of \$167-250, sufficient to pay for the labor and material for the latrine itself (including toilet shelter in bricks or concrete). Depending on local conditions and their preference, clients can build an ecosan toilet, a septic tank toilet or a twin-pit toilet, with or without bath. NCT gives clients a sheet with their chosen toilet design, so that they can follow the right guidelines for construction. The households can contract any mason for the work, but NCT recommends the masons it has trained in the agreed designs.
- 2) To ensure quality of execution (and appropriate use of the loan for the toilet), an NCT officer oversees the construction of the latrine. The loan is disbursed to the family in 3 stages: a first part once the pit is dug to pay for purchase of materials, a second part once the outer walls are up to pay part of the masons' work and buy the remaining materials, and the last part once the latrine is completed to finish paying the masons. Clients then have 2-3 years to repay monthly at a 12% yearly interest rate.

Customers are families that include one woman who is part of an SHG; the families earn about \$67-100 per month. They previously had no choice but open defecation (for lack of financing solution to build a latrine). Most live in rural areas relatively close to cities, so they have already seen and used a latrine, simplifying the awareness challenge met in more remote places.

» *New Sanishop- NCT model:* Sanishop is building an entrepreneur model where the entrepreneurs (i.e. a toilet sales person, selected and trained by NCT and eKutir paid commissions on each toilet sold) will become a one-stop-shop for latrine clients. Entrepreneurs will link them with NCT to access financing and ensure provision of quality raw-materials (via NCT that will order in bulk on behalf of the entrepreneurs), mason oversight and verification of the completion of the toilet to avail the last loan disbursement. This will significantly simplify the process of building a toilet for end-clients, who until now had to coordinate masons and material suppliers themselves, with no guarantee on total price. It should also help guarantee a fixed, lower price of toilets for clients through bulk purchase of materials and bulk mason hire. In addition, this system will serve villagers who are not yet part of an SHG, on which NCT will conduct a due diligence before deciding to offer them a loan.

Value chain



Manufacturing

- » *Initial NCT model:* NCT has trained over 160 masons in building latrines with one septic tank, two pits or ecosan (dry) toilets, with grants from various organizations as well as with the interest rates earned on the loans to clients. NCT selects artisans who have been working as labor/masons in the local area (so that their need for investment to start building latrines is nil) and who are interested in this training. Field staff working in the area spreads the word and motivates them to join the training. The training lasts for five days during which masons are paid normal daily wages, given food and travel allowance. Construction is monitored by NCT field staff who oversee and validate the three phases of construction for each partial disbursement of the loan (once the pit is dug, once the wall and interior structure are finished, and once the toilet is complete).
- » *New Sanishop-NCT model:* eKutir and NCT have started organizing additional trainings for local masons (10 so far) to teach them to build two-pit latrines (the same ones as those previously recommended by NCT, as these are well accepted locally). The training lasts two days. eKutir also conducts refresher training for masons already trained by NCT, to reemphasize on quality of construction and the type of toilet that they should construct. They train more masons than needed as not all masons are available at any given point of time. eKutir and NCT are arranging bulk orders for doors and roofs from Tata and other national providers, and in the future plan to also order slabs in bulk (the most commonly used pans are Hindustan's).

Marketing & sales strategy and organization

- » *Initial NCT model:* NCT field staff (48 social workers paid \$42/month and 19 field supervisors paid \$83/month) promote good WASH practices, along with toilets, during SHG meetings (with a 30-min video in local language) and advertise the availability of loans. Typically 10-20% of SHG members asked for a loan on the same or next day and close to 100% would decide to buy within 3 months if they had enough space to build around their house.
- » *New Sanishop-NCT model:* With grant funding from Unilever, eKutir and NCT are setting up Toilet academies. They are now training local entrepreneurs to become a one-stop-shop sales force for toilets, centralizing orders from clients as well as purchase of materials and orders for masons. To do so they hired dedicated management to monitor the entrepreneurs (one master trainer and two field managers for 25-30 entrepreneurs).

Entrepreneurs are selected among local villagers based on their motivation, mobility, prior experience and business skills. Entrepreneurs are required to invest at least \$167 (for example in storage space, transportation vehicle etc.) to get NCT support. NCT then orders materials on behalf of entrepreneurs, and resell them to the latter as clients pay.

Once trained, the entrepreneurs work in 2-3 villages at a time and depending on demand they start the construction process. They go door-to-door offering their services and refer interested clients who need a loan to NCT loan officers who come back to assess client solvability and decide to offer a loan or not (entrepreneurs also look for clients who can pay without loans). When a client is approved, NCT, along with the entrepreneur, plans a schedule for completion of construction. Entrepreneurs procure materials available locally and coordinate with NCT to arrange for standard doors and roofs. They also arrange masons to complete the construction process in the 5-7 days required for construction of standard twin-pit latrines. The customer must then dig the pit to activate the first installment of the loan from NCT. Upon completion of the full latrine, NCT staff along with the consumer will do a quality check, and disburse the remaining balance of loan to the consumer, who can then pay the masons at the agreed rate, and pay the entrepreneur the remainder of the agreed toilet price (which includes materials costs and commission of NCT and the entrepreneur). The entrepreneur then brings back the full amount to NCT, which redistributes commissions to entrepreneurs at the end of the month.

Installation

Once the pit is dug, masons come to install the pit, close it, install the slab, build the walls, and add the roof and door, under supervision of NCT field staff or SaniShop entrepreneurs. Clients used to organize transport of materials themselves, but transport is now taken care of by SaniShop entrepreneurs who can group transport for several clients at once. Masons are paid a maximum \$58 for 5 days work for two people, spread over a maximum of 2 weeks.

Cash/payment collection

The loan is disbursed in 3 phases: \$83 when pit is dug, \$83 after the pit and walls are built, and the balance when the works are completed (toilet shelter plastered and painted, door and roof installed and toilet tested). A completion certificate is then issued and signed by the SHG president, secretary, beneficiary and NCT supervisor. For loans financed by NCT, NCT agents then visit the SHG once a month to collect the monthly installments. Loans given by the State Bank of India (\$167 loan max, 13% interest rate, 3-5 years duration like any consumer loan) have quarterly to bi-annual payments, which clients must go and pay at the bank branch. In case of late payment; NCT supervisors take care of ensuring that payment is made promptly (as they guarantee the loan), which has so far resulted in 0% defaults (late repayments are occasional).

Usage and hygiene

NCT promotes hygiene and sanitation more broadly through its field officers at SHG meetings.

Maintenance and cleaning - NA

Waste storage and collection

The project does not organize for pit emptying. When the pit is full (an estimated 3-5 years), households call for local contractors (\$17-42 depending on areas, depending on the depth of the pit and local prices for this service). Sanishop is now building 2-pit latrines which do not face this issue.

Waste treatment, disposal and recovery - NA

Costs breakdown

Inputs	Cost split	Cost change brought by Sanishop with bulk purchase
Raw materials	\$75-120	Up to \$8 reduction or 6-10%
Roof	\$11	30-40% reduction: up to \$4
Door	\$20	30-40% reduction: up to \$8
Seat (ceramic pan)	\$5-6	5-10% reduction: up to \$1
Pipes, plumbing and ventilator	\$4-6	
Transportation cost	\$5	
Labor	\$33-47	10-20% (if sufficient guaranteed work for masons): up to \$7
Total cost for client	\$175-200*	Up to \$28 cost reduction, to split between entrepreneur, NCT and client

*including transportation costs

- **Design:** Design prior to SaniShop: two-pit latrines, one septic tank (when two-pit latrines were not appropriate for the soil) or Ecosan. Current design: two-pit latrines with ceramic slab (available locally, soon to be purchased in bulk by NCT), cement or brick walls, metal door and roof. Designed and field tested in Orissa by eKutir team.
- **Durability:** Made of cement or bricks (slab, chamber box and rings) and ceramic (pan, tiles and slab). Neither guarantee nor maintenance required (though SaniShop plans to provide a 1 year warranty). 8-10 years lifetime.
- **Water and energy efficiency:** Small buck of water needed to flush out the toilets manually. No energy use.
- **Malodors and safety:** Small aeration window in the toilet cabin. Limited malodor due to being a flush toilet.
- **Waste storage:** Lined pits, not watertight (waste can filter progressively in the soil).
- **Waste collection:** Done manually by contractors in the one pit option (\$16-42 per emptying). Current two-pit latrines do not require emptying.

Technology

Description of toilet-related technology

Key features:

- **Cost:** varies depending on type of toilets built (e.g. with or without bath, septic tank or twin-pits) and locations (in some areas, the cost of sand and cement can be double or even more; masons also do not have the same rates). At time of writing, eKutir was working with NCT and material providers to minimize and standardize prices across the organization. Typically, a twin soak pit toilet without bath costs clients \$175-200, split as follows:

- **Potential and limitations:** The two-pit system recommended by SaniShop is not appropriate in flood-prone areas (or in areas where the water table is too high), so the project will probably continue offering septic tank technology as well. So far this has represented 25% of people who installed latrines.

Social impact

- **Penetration:** From a survey conducted in 2008, NCT found that for the 8,500 SHGs it had supported at the time, 77% did not have toilets at home. Since then, NCT has directly extended loans to 5,800 families for the construction of toilets and has supported the State Bank of India and Bank of India in providing consumer loans to an additional 1,200 of its SHG members, which in total represents 6% of families without toilets in its SHG pool. However, only around 8% of NCT SHGs have actually been offered loans, for lack of refinancing lines and of human resources on NCT's side. So far, due to funding limitations, only 67 out of 125 field staff support sanitation, for 12,500 SHGs.

With more funds, NCT could involve more of its staff in sanitation. Support from other organizations like Sanishop also help further promote toilets while reducing the burden on NCT's own field staff. In SHGs that were offered the loan, they reached close to 100% penetration in 3-6 months. NCT SHGs typically represent 1% of a district population. There are other SHGs set up by other support organizations, but NCT already has sufficient demand for toilets with its own SHGs compared to its operational capacity and fund availability.

- **Acceptance and usage:** All toilets are still in use four years after first sales.
- **Customer satisfaction:** Not measured as such but loan repayment rate currently stands at 100%.
- **Evidence of impact on health:** NCT conducted a study in 2012 on over 20% of its SHG members who had received a loan. Regarding health impact of having a toilet, 73% said it had helped them a lot and 23 % says it has helped them moderately.
- **Promotion of related behaviors:** NCT staff promotes hygiene and sanitation jointly to its SHGs.
- **Waste collection and disposal strategy:** None at this point, yet this has potential for livelihood generation. The project hopes to have 120 entrepreneurs doing waste disposal by June 2015.

Economic sustainability

End consumers

- **Affordability for end users (% of total household income):** According to a 2012 NCT study, the average cash income per SHG household is \$67-100, counting revenues from farming and other work by other family members (many however produce most of their food for home consumption). A toilet priced \$200 to \$300 represents 2 to 5 months of household income, or with a 2-year 12% interest rate loan about 10-20% of the family income per month. Before SaniShop masons and material providers could charge any price, but eKutir and NCT are now working on centralizing orders to get fixed, lower bulk price for all materials and ensure maximum affordability and transparency on prices (including masons' fees). They have hence also agreed with the masons they trained to lower their prices by over 25% in exchange for the promise of considerable business in the years to come.
- **End consumer financing:** NCT offers its SHG members a 2-3 year, 12% annual interest rate loan of \$167-250, against a \$33 down payment (or pit digging by clients themselves). SHG members can also get a consumption loan from the State Bank of India of \$167 at a 13% interest rate, repaid quarterly or every 6 months, for a

duration of 3-5 years (like any consumer finance loans). NCT guarantees the loan amounts for SBI and takes care of repayments for SBI in case of problems.

- **Savings from lower health expenses:** NCT conducted a study in 2012 on over 20% of its SHG members who had availed a loan back then. Regarding economic impact from lower health issues since they had installed toilets in their home (at most 3 years back), 52% of them said they had saved between \$8 to \$33, 38% said they saved \$2-8 and 10% said they had saved less.

Upstream organization

- **NCT:** NCT gets refinancing at 6% interest rate from NABARD (total \$1.6m committed until end 2014, with \$330,000 outstanding loans as of end 2013 and \$303,000 in the bank ready for disbursement). The 6% differential on interest rates does not cover the full costs of running the program (i.e. salary of field staff and other field related costs, as program overheads are covered by other programs). The organization field costs represent \$7-10 per toilet installed (more in years when there are many loans to service and few new installations). Interest revenues bring in \$10-16 (depending on amount of loan) per toilet installed, over 2 years (i.e. \$5-8 year, creating a need for working capital of about \$2 per toilet during the first year while the program grows to cover field costs, so far covered by grants).
- **Sales entrepreneurs:** In India, the SaniShop model is designed so that sales entrepreneurs get a margin of at least \$7 (3%) on each latrine sold, taken from the cost reduction that bulk purchase should allow. Targeting to sell, organize and monitor the construction of 25 latrines per month, bringing them an income of \$167 per month (twice the local average household income).
- **Masons:** Masons are paid at a standard rate of \$5-7/day for skilled or semi-skilled labor.
- **eKutir / WTO:** They fundraise and function based on grants. In the case of NCT, they have raised funds from Unilever: a working capital revolving fund of \$50,000, sufficient to fund bulk material purchase for an initial group of 60 entrepreneurs (\$833 each), plus \$108,000 for program management (to set up two "toilet academies" in Orissa and two in Maharashtra, training entrepreneurs, including consultant costs, partners' costs etc). They do not make any revenue from this model.

Innovations

- NCT innovation was to create an enabling ecosystem for villagers to purchase quality latrines, thanks to the provision of financing to end-clients, training of masons in adequate building techniques and quality control via its own staff.
- SaniShop is now trying to make this ecosystem self-sustaining, with a central organization building and retaining a network of local entrepreneurs and masons. The key for success will be to keep some central functions in-house, such as the provision of consumer finance to end-users coupled with quality control on the toilets built. The provision of material at preferential rates that will enable to keep a margin for the sales entrepreneurs.

Remaining hurdles and bottlenecks

- While SaniShop aims at setting up sustainable, local ecosystems, it has not yet found a way to recover its initial investment, and is still testing ways to cover for its ongoing costs.
- NCT, as an NGO, will need to make sure it embraces this initiative with a business-oriented mindset to make it sustainable (i.e. price the toilet with a sufficient margin to cover all costs).
- The contractual link between entrepreneurs and NCT, as well as their compensation scheme once they are mature enough to sell on their own, remains to be defined.
- Defining a process to ensure that clients can be served well and quickly (in terms of getting consumer finance, receiving the materials and getting masons' support for 1-2 weeks to build the toilet) will also be key to client's satisfaction and hence to the project success.

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Appendix

Sources: Field visit to Nagpur district on December 12-13, 2013, with Tripti Naswa, Sattva Associate Principle and Mukund Dhok, Senior Project Coordinator, Nageshwara Charitable Trust; Rita Bhoyar ritabhoyar@yahoo.com; interview with HMB Murthy, Secretary, Nageshwara Charitable Trust; www.worldtoilet.org/wto/index.php/our-works/sanishop

Exchange rate: 1 USD = INR 60
