

# FINANCING SANITATION PAPER SERIES #1

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*An overview of the financial  
instruments for sanitation used in  
FINISH programmes in India and Kenya*









# Financing Sanitation, An overview of the financial instruments for sanitation used in FINISH programmes in India and Kenya

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The Financial INclusion Improves Sanitation and Health (FINISH) programme was conceived to improve sanitation and thereby, living and economic conditions of poor rural and peri-urban households, through economic incentives, primarily enhancing financial inclusion of these households. Since 2009 it is an international public private partnership between financial institutions, Governments, NGOs, and academics, initially in India, and from 2014 in Kenya. The overall result of FINISH in India is improved sanitation systems for 500,000 to 600,000 households in different states of India. It combines demand generation through behaviour change & financial inclusion measures with increased access to improved sanitary and hygienic conditions, ultimately leading to a safer environment for all.

When we first started our FINISH programme in India in 2009, it was to be operated mainly through one financial instrument: micro credit. At that time, we hoped that awareness generation for sanitation which we routed through - and for which we build capacities at - existing micro finance partners would generate demand for sanitation. The partners could then provide micro credit to the poor to finance their sanitation needs. At the same time it would enable the Government to target with sanitation subsidies the ultra-poor or in the Indian context those below the poverty line, who are often not eligible for commercial micro-credit.

However, over the years we noticed that we needed to diversify and capture many more financial instruments in sync with the diversity of the people, existing financial infrastructure, new developments including Government policies, financing and sanitation supply side interventions, financial and sanitation requirements, needs and opportunities. Consequently, one financial instrument expanded into the use of many more financial instruments. And finally, FINISH became a testing ground for financial engineering for sanitation.

## Scaling financial instruments

Based on the experiences of FINISH, the models to unlock private sector involvement in sanitation (SME and large scale entities) are different. A range of business strategies need to unfold, including local partnerships, franchising, setting up local building materials processing units and decentralised reuse (sanitation value chain) processing units. This has a bearing on financing for sanitation supply side development. Large institutions that enable finance need to look at how financial inclusion processes can get more flexible in different geographies rather than just scale through scaling a process through many more outlets. This diversity is also reflected in the financial instruments. From the sanitation field and the financial models developed in the programme, it can be concluded that scaling development (sanitation) can be achieved through contextual replication. This, in turn, necessitates the diversity in the financing process. The development of different types of financing instruments is a response to this need for diversity.

There are a number of potentially scalable financial instruments under development from bonds to credit lines and carbon financing. Obviously developing these requires different kind of partners, yet the financial expertise embedded in the networks of FINISH in India and Kenya gives new dimensions to impact investing instruments. After all investing in sanitation has impact.

According to the World bank every single euro invested in sanitation gives a return of €7 or more. As these returns

are not centred on one organisation or individual it has been found difficult to finance household sanitation. However, if sanitation reaches scale, a combination of different financing instruments, whereby each stakeholder has its own expectations of returns, may provide the much needed financing to the sector.

## Financing sanitation instruments - an overview

The financial inclusion paragraphs of FINISH show a diversity which was not foreseen when the programme was initiated. During the Stockholm International Water Week 2015, I discussed our financial engineering activities in India and Kenya with a number of people (Pim van der Male (Dutch Ministry of Foreign Affairs), Sjeff Ernes (Aqua4All) and David Wilcox (ReachScale). This discussion led to the idea to list the different financial instruments that we are using in the FINISH programmes in India and Kenya.

A quick scan already produced a list of 17 financial instruments. After writing them down in detail, the list grew to over 30 instruments. Some of these are generally known, but many of them are relatively new - some even under development. It is our pleasure to present this overview and also the direction we are moving with the instruments that we are currently testing and finalizing. It is our hope that this will assist development partners in designing, financing and implementing sanitation programmes, projects and businesses and thereby contribute to achieving Sustainable Development Goal 6: ensure water and sanitation access for all. This short report provides an overview of the different financial instruments.

## MICRO FINANCE

From the entire spectrum of micro finance (financial literacy, micro credit, micro savings, micro insurance and micro pensions) most instruments are used in FINISH in India and Kenya. The microfinance instruments could still be further detailed in loan types and amounts (whereby differences and similarities between countries become apparent) and also different types of insurance products on offer. Also we do not include micro pensions as it is not directly linked to the programme, though this is done by some of our partners.

1. **Financial literacy** (India, Kenya). The first step of micro finance is basic financial literacy. Clients need to understand the basics of micro finance, from savings, loan and repayment terms, interest rates, penalties, group mechanism (if applicable) or other types of guarantees etc.
2. **Micro credit** (India). In India, the following instruments are used by our 15 Micro Finance partners to pursue sanitation: financial literacy training and micro credit. Micro credit, both group and individual lending, is used both for gap financing and bridge financing (for rationale of bridge financing for sanitation, see Government subsidies below in case of India). So far about € 25,000,000 is used for sanitation micro lending.
3. **Micro savings and micro credit** (Kenya). In Kenya post financial literacy training, micro credit requires micro savings first (typically up to 20%) of the required amount. A number of financial institutions, K-REP and Family Bank have developed special loan products for sanitation. So far very few loans have been sold, yet the mechanisms are in place for exponential growth of these portfolios.
4. **Micro insurance** (India). FINISH staff organized and carried out trainings for micro insurance (MI) and product training / retraining in vernacular languages. FINISH has built capacity of micro insurance agents and its service providers for efficiently bringing width and depth to the distribution and servicing of the various Company's MI products, specifically in the health segment. Various forms of micro insurance are under implementation: micro life insurance (Tata-AIG, LTI, SBI, etc); micro health insurance – hospital cash (LTI); micro accident policy (TATA – AIG); group insurance (LTI). Well over 100,000 policies have been sold.
5. **Bank – SHG linkage** (India). Self-help groups (SHGs) are groups of upto 20 mostly women. As the name suggest as a group they can easier address their issues and their capacities have been built on group dynamics. At the same time by installing financial literacy a mechanism or platform is created for micro finance services by banks. Quite often these Banks are refinanced by NABARD, one of the four Government supported Development Finance Institutes in India, dealing with rural development. Banks work with intermediaries

who are the link for all social services to the groups, but not the financial part. SHGs can be scaled financially into Federations. A federation of SHGs has its own merits and demerits. Often staff in the Federation lack necessary skills, legitimacy can be an issue too. Partner NCT – Maharashtra – has been using this model for financing (about 1500 sanitation systems till date).

6. **Bank lending following Joint Liability Group (JLG) Model of NABARD** (India). Joint Liability Groups (JLG) are informal groups of 4-10 members who are engaged in similar or independent economic activities and who are willing to jointly undertake (mutual guarantee) to repay the loan. In case of default or death of a member, all other members jointly take the responsibility to re-pay the loan. RDO Trust has successfully channelized sanitation loan from Bank of India and CANARA Bank following JLG model, and in addition also using SHG bank Linkage. RDO has successfully adopted this model for sanitation and has implemented well over 12,000 sanitation systems (loan amount of about € 6 M).
7. **MFI – SHG linkage** (India). Somewhat similar to Bank – SHG lending is the RDO Sanghamitra model. Sanghamitra Housing Finance, a MFI, directly provides sanitation loans to Women Self Help Groups formed and nurtured by RDO.
8. **Table Banking** (Kenya). Table banking is based on a group mechanism and traditionally comprising of women. The group meets at least once a month, place an agreed amount of savings on the table, their loan repayments and contributions and then borrow from this kitty either as long term or short term loans. The money borrowed is used as capital for a livelihood project. At the beginning of a group carrying out table banking, funds collected are normally issued out as loans immediately. However, as the kitty grows, the groups will normally open a bank account but only for purposes of depositing their money for safekeeping and not borrowing. The lending is done internally and independently on their own. This form is normally interest free or at a small interest whose interest income is shared out to all of them as gains to their savings on a pro rata basis. To fast track the financial inclusion in FINISH INK and to help the locals build financial confidence. Table banking is being encouraged, though at this stage it cannot be quantified.
9. **Individual microfinance** (Kenya). Microfinance institutions have seen some of their clients graduate from being micro clients, yet still too small for SME borrowing. This led to emergence of individual microfinance targeting these kinds of persons. Traditional microfinance is based on members guaranteeing each other, but when a particular members savings grow exponentially ahead of the other members savings and his/her loan requirements end up much higher, the group guarantee method fails to cater for such a client due to their differing levels in hierarchy. Under the individual microfinance, such clients take up credit facilities, but they must secure the loans with some kind of tangible security. Since the securitization process in Kenya is lengthy and costly, under Individual microfinance (IMF), a security document will be held under simple deposit meaning the bank just holds say a land title document or a share certificate without having to fully collateralize it. IMF clients also have the option of chatteling their households and getting one guarantor whose banking worth when analyzed is sufficient to guarantee the borrower on his own. Under FINISH INK, IMF is mainly applicable to clients borrowing to venture into sanitation businesses.
10. **Merry Go Rounds** (Kenya). An informal financial instrument that the Kenyan FINISH INK team has embraced is the use of “Merry Go rounds” as is locally denoted by the local communities and persons. This is operationalised by say a group of 10 women or so, who on a regular basis but at least on a monthly will all contribute an equal sum of money and give it to one of them to invest in an asset traditionally being a household asset. Now it is used for any kind of personal investment the beneficiary at the moment may wish to undertake. This is interest free and in a way “debt free” because all that needs to happen is that the contributions from each of them must be regular and equal to ensure that the cycle continues. FINISH INK has identified this as one of the quickest forms of financing that is readily embraced by locals to finance the construction of household latrines. Merry go rounds is encouraged, though at this stage it cannot be quantified

#### Other types of financing are listed below:

11. **Impact investing**, (India, Kenya). SNS REAAL Asset Management, currently named Actiam, has been one of the first impact investors, investing in MFIs that have or are developing a sanitation portfolio. Currently the scenario is getting more diversified with Social Equity Fund (long term investments with modest returns in SMEs with high impact, new entrant), Goodwell Investments etc. joining in from outside.

12. **Local Govt. Subsidies** (India, just starting in Nakuru, Kenya). In India over the years the amount of Government subsidy for toilet construction has increased from INR 2,100 (2009) to INR 12,000 (2015) with small variances. Some principles remain the same: central Government paying 75% and the respective state paying 25%. All subsidies are result based financing and payable only after completion of the sanitation facility. With MFIs, bridge financing facilities have been set up, so that poor household can finance the sanitation systems and post construction can be aided in claiming Government subsidies and settling loans. Other agreements with local Governments have been entered that link sanitation information, education and communication much closer to results. In Nakuru, Kenya with support of an output based assistance programme, subsidy flows post toilet construction.
13. **1st / 2nd loss** (India, Kenya). First loss is used by our micro finance partners. Micro finance institutions obtain their finance from impact investors, banks and others. These loans from investors are unsecured. As a risk mitigation measure, these investors into micro finance will let the (first) risk of clients not repaying rest with the MFI. A special case was developed with the Central Bank of India. As per the MoU, CBI agreed to provide sanitation finance to members of SHGs in villages within 15 kilometres of the branches of the Bank in the 2 Districts of Rajasthan for effecting construction of initially 2,000 safe sanitation systems. For this purpose an amount equivalent to 10% of the loan sanctioned by the Bank for the beneficiaries will be kept in FDR during the term of the loan with the bank on behalf of FINISH society as a measure of comfort. In addition ASSET has committed to keep an amount equivalent to 2% of the loan as the first loss guarantee. Depending upon the success of this model further extension of this pattern of sanitation finance will be considered. Due to disagreements whether a lien would be placed on FDR this pilot was unsuccessful. A second loss mechanism is more complex, whereby another party takes on the 2nd loss. A structure for this had been set up together with IFMR and having a second loss deposited in an escrow account to reduce the risk for the impact investor, eventually it was not implemented as its complexity and gains to be obtained did not match.
14. **Cooperative financing** (India). Through member cooperatives of the Amul brand. Amul is a household name in India for all sort of dairy products. Originating out of Anand, Gujarat, dairy cooperatives carrying the Amul brand spread all over the State. Today nearly each district in Gujarat has its own cooperative, who all sell under the Amul brand. Cooperatives extend different financial facilities to their members, such as interest free loans for toilet construction. These loans are recovered through milk prices.
15. **Bank financing (India)**. Due to efforts by FINISH Society, WASTE and many other key stakeholders in the field, the Government of India has listed the sanitation sector as priority sector lending for banks. This legislative change is quite recent, but it is likely to have a very positive effect on the funding into the sector. As of today a number of financing models with banks apply: (a) banking correspondent, Setu Seva Trust in the State of Gujarat has been nominated as Banking Correspondent by the Central Bank of India. Because of this working relationship, the organisation has managed to secure sanitation loan for the target group. The Banking Correspondents is rapidly growing. Frontline FINISH partners MFI such as Cashpor, Annapoorna etc., are increasingly taking this route. Private Banks such as Yes bank, ICICI, IndusInd etc, are especially active in this space; (b) bank – Self-Help Group (SHG)/ Joint Liability Group (JLG) lending (see 5 and 6 above); (c) against fixed deposit (see below).
16. **Self-financing** (India, Kenya). Self-financing of sanitation by households based on demand generation for sanitation assets by FINISH partners, picking up in both India and Kenya. About € 9.3 M of sanitation assets have been self-financed based on the sanitation awareness and demand generation activities of the partners. In Kenya the programme has just started and self- financing based on demand generated is below € 100,000, yet it is growing relatively fast.
17. **Output Based Aid / Result Based Financing** (India). This is to incentive Indian implementing partners to increase sanitation densities from existing levels to minimum 75%. Unit level is a village, note that normally a number of villages comprise the lowest level Indian administrative unit, the Gram Panchyat. At 100% sanitation density (and some other achievables) an Indian Government result based financing scheme kicks in (Nirmal Gram Puraskar). Till end March 2015, 717 villages had achieved 75% density. Monitoring system developed in collaboration with IFS.
18. **Use of Guarantee Fund (Kenya)**. WASTE has for many years used Guarantee Funds to motivate local financial institutions to enter the market for sanitation financing. Financial institutions in developing countries do not have the in-house expertise to review the technical aspects of the enterprises active in the solid waste and



sanitation sector. Also there is generally no intention of developing this expertise, it has to be brought in from elsewhere. The easiest way for this is to link these to an (ongoing) technical assistance programme. The most important bottleneck for local banks to finance urban environment MSMEs is high risk perceptions. Urban environment businesses are often informal, unrecognised, unregulated, under-capitalised and - in (nearly) all cases - unfamiliar to the financial sector. Yet urban environmental MSMEs often generate substantial cash flows and are in need of cash transaction support services like any other business. Unfamiliarity with the sector makes financial institutions reluctant to start offering these financial services. In Kenya about € 100,000 has been parked in guarantees. Against this sanitation systems have been constructed and a whole range of sanitation and waste enterprises have been supported. Total value of loans outstanding is well over € 100,000.

19. **Leverage on fixed deposit** (India). The FINISH programme had transferred its expected OBA payments for the year 2014-2015 to a local partner account for onward distribution. Against this temporary deposit the partner was able to raise 4 x the amount for local bank financing of sanitation (€ 800,000).
20. **Corporate social responsibility** (CSR, India). In India by law companies have to spend 2% of their profits on CSR. Sanitation being a Government priority sector, it is expected that CSR funding for sanitation will be increasing in India. In the programme CSR funding is interwoven in the activities in Rajasthan, capacity development and bridge financing for sanitation systems (HZL and Cairn). Additionally, support is rendered to school sanitation (Cairn, IIC, TAGIC). As a policy all listed companies are checked on their environment, social and governance (ESG) criteria by partner SNS. Total CSR funding is about € 300,000 but expected to grow fast.
21. **Supplier's credit** (India). This has been done in two stages. Stage 1: based on aggregated demand of beneficiaries (resulting from sanitation awareness and demand creation) and by linking it to finances, making this demand for sanitation effective, supply side economics could be derived at. Stage 2: It works with vendor credit to bridge this working capital need. In six months vendors have given credit of well over € 1 M in Rajasthan alone. The idea is to expand this further.
22. **Equity investment** (India, under dev. Kenya). As the sanitation is a large market with many characteristics of the bottom of the pyramid market (high quality, low price and strong distribution). Sanitation is a little more complex than most consumer markets due to need for behaviour change / demand generation, but also because the final produce (human excreta) has all the properties of an unwanted good. Furthermore it is bulky. In other words, what is required is local production / transformation centres. Various ownership models are under field testing; herein the community has an equity share together with the commercial off-spin of promoters. In addition other equity share models are being developed too.
23. **Co-investments** as an extra instrument besides direct investments. Actiam is a partner in FINISH and FINISH INK and represented on the board of both. Actiam cooperates with FMO (the Dutch DFI) as the originator of the loans and by this instrument costs can be shared and lowered (and thus offer lower rates to MFI's and SME banks).
24. **Non-convertible debentures** (NCDs, India). Especially in India are an instrument to avoid hurdles for foreign investors to finance financial institutions. The license process required by the regulators serves to oversee not only the entities making investments in India but also the amount and type of capital flows into and out of India. In this respect, the regulations require that licensed foreign investors use a custodian bank to process transactions. The custodian bank is required, among other things, to monitor that the foreign investor complies with investment restrictions issued by the Securities and Exchange Board of India (SEBI) and to make reports to the Reserve Bank of India (RBI) on the amount and type of investments for RBI's monitoring purposes. Direct transfer of funds from a Netherland's bank account to an Indian MFI is not possible under the regulations. Due to the high costs involved is this instrument only interesting for bigger MFI's and SME banks. Actiam has invested in several MFI's via the route of using NCD's.
25. **Revolving Fund** (India). One of the partners in Gujarat had developed a fast construction model using materials from the shipbreaking yards in the State. They had been registered as an implementing agent under the State Sanitation Campaign. Against constructed toilets systems (result based) their bills were paid. The revolving fund acted as working capital to expedite the construction process. Some 10,000 + sanitation systems were thus constructed. Balance in revolving Fund was settled against Result Based Financing claim for achieving 75+ % sanitation density coverage.

26. **Small Investment Facility** (India, optional Kenya). A number of innovations have taken place under this facility also known as the Sanitation Investment Fund; grant support to innovations, interest free loans, low interest loans but also non-financial instruments such as innovation challenges / prize contests. This Facility has been set up under and in support of the India programme to cater to businesses and technologies that required further market testing, before rolling out. Applications are from FINISH partner organisations and are reviewed by a technical committee with sanitation financial and governmental expertise. Of those that have received funding, the most promising are the following (a) Convertible grant and loan to Social equity Fund (for convertible grant and Social Equity Fund see below) (b) Grant for business centred on a central biogas facility connected to a public toilet. (c) Grant for business of conversion of faecal sludge into marketable compost in Odisha. (d) Loan to a production centre of sanitary ware (rural sanitary mart) in Rajasthan. The District Administration has given land, building and salary support. The facility has provided a loan of € 5000 to establish the mart. The idea behind the RSM is to enable the community to derive at cost advantage. It also avoid transport related problems. Dharni for its RSM makes bulk purchase of materials such as rural pans, pipes, foot rests, traps, cement, stone and other sanitation related materials. It offers all items at a price that is lesser than the market price. A cost comparison has been done in the following table:

Items	Market Rate (In Rs)	RSM Rate (In Rs)	Difference
Cement per bag	280-300	230-250	50-70
Iron Door( 12 Kg)	980-1000	820-840	160-180
Fibre Door	1080-1140	840-900	240
Rural Pan	210-240	185-190	25-50
Tiles (box of 10 pieces)	180-210	110-130	80-90

The RSM has facilitated families to construct toilets. Till March 2014, around 1200 households have received different types of services. RSM is able to generate sustained employment opportunity for the local masons and labourers. It has been developed as a centre to generate awareness on environment sanitation. The locally available materials make construction of sanitation system more cost effective for people and at the same time they can also avoid the transportation related problems. Because of the mart the inaccessible areas can also be reached. The mart has different model toilets within its campus with options both in terms of finance and materials to facilitate selection as per the affordability of the target group. It also offers personal hygiene products such tooth brush & paste and toiletries. The mart has been developed as a centre to impart training to the masons and to generate awareness on “Environmental Sanitation”; (d) interest free loans for refurbishments. In Tamilnadu, FINISH partner BWDC was supported with an interest free loan which is utilised to restore the existing damaged household toilets in a sustainable manner. The target group were poor families having defunct toilets and an annual income of not more than € 700; (f) Several technologies have been identified – low cost and replicable – yet their scaling models have not yet been established. DGIS has to be appreciated for allowing this very broadly and vaguely defined facility to be set up under the FINISH programme and used as a vehicle for financial and sanitation innovation.

27. **Convertible grant** (India) Using the Sanitation Investment Fund a convertible grant has been given to the Social Equity Fund of € 100,000. This initial investment is partially used to set up the Social Equity Fund and as an initial investment into SME business in sanitation in India with large impact (backward and forward linkages); the grant is converted into a loan whereby the Social Equity Fund has agreed to plough back its returns into sanitation financing in India.
28. **The Social Equity Fund** (SEF) invests with a mix of debt and equity in Small and Growing Business (SGBs), Entrepreneurs in Africa, Asia and Latin America. SEF has explicitly chosen to focus within the broad range of SMEs on SGBs – the missing middle, realising that this sector is the basis of a meaningful and sustainable perspective offered in non-competitive economies and for the BoP communities in particular. This specific sector is in between the segment of non-formal micro-entrepreneurial activities and the medium and large enterprises. SEF works with international and local Partner Institutions that apply SEF’s special methodology, to select SGBs and support them in their path of growth and transformation into quality businesses via improvements of the professional organizational structures, governance, human resource development,

financial management, product & service development, logistics and market outreach. At the basis need to be transparent and respectful relationships with their stakeholders. SEF's focus its investments in agriculture and animal husbandry; water, sanitation and transformation of waste; renewable energy, small manufacture and health sectors.

29. Technical assistance component covered under **spread / interest differential** (India). In the very early stages of FINISH a low interest bearing commercial loan from SNS REAAL to the MFI BISWA was accompanied by a technical assistance component. The innovation was that the technical component was paid for by BISWA on the basis of having a low interest on the loan. The MFI was thus not passing on the entire benefit to the end-user (this was to avoid loan diversion from WASH loans to general purpose, if the former had a much lower interest rate) or consuming it itself. The technical assistance component was partially used to build capacities of staff and partially to monitor sanitation performance. Due to amongst others the micro finance crisis, BISWA landed in difficult circumstances, in fact started to default on its loan repayment and the instrument thus ceased to be used.
30. **Blended finance** (India, under dev.). Various forms of blended finance have been applied – see above, yet the more classical type of blended finance (grant, low interest and commercial financing) with different types of finance offered to beneficiaries and offering different rates of return to different investors has not yet been developed, though discussion with various organisations such as Finance in Motion have been held.
31. **Sanitation line of credit** (India, under dev.). In 2011 discussions were started with KfW, Germany on a dedicated line of credit for sanitation for India. Several local partner banks were approached, yet an understanding could not be reached at that time. Negotiations are ongoing on a new sanitation line of credit with another international development finance institution (As a non-disclosure agreement has been signed, names cannot be disclosed at this stage). Discussions have started elsewhere in Europe as well for a sanitation line of credit to partners in Kenya, this is at a very early stage.
32. **Carbon financing**, (India and Kenya, under dev.). Initial investigations centred on the aerobic decomposing of faecal matter, thus carbon credits that could be obtained by ending open defecation. Leaving monitoring mechanism aside, carbon footprint of constructing quality toilets would offset any carbon gains from ending open defecation. Subsequently focus was on two routes, linking toilets to biogas units (existing methodology for calculating carbon credits) and as an innovation comparing nutrients in decomposed excreta to those obtained from chemical fertilisers. Initial calculations showed mostly positive results. Talks are ongoing if these can be shaped in a framework.
33. **Bond financing** (India, under dev.). In the health and water sectors, innovative instruments have been developed with the help of a number of specialists, GAVI Bond respectively Water Bond Bank. Another cue can be taken from the Development Impact Bond (FMO). The crux is in the guaranteed result at a certain scale. It is believed that the FINISH set up can guarantee that scale, but discussions with a number of financial experts are ongoing.



