“CONSTRUCTING” A LOCAL DRINKING WATER ENTERPRISE: SEARCHING FOR IMPACT BEYOND THE BUSINESS MODEL

Case study (Agra, India) on collaboration between FEMS3, Centre for Urban And Regional Excellence (CURE), Eureka Forbes' Community Fulfillment Division and a women's Self-Help Group “Nai Aha Swaya Sahayata Samuha”

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WHY THIS CASE STUDY?

We must begin with a confession. The title of the case study is a bit longer than we ourselves would have liked. The first part of the title obviously refers to drinking water. And with good reason. It would not be a stretch to say that water, and drinking water in particular, has certainly been a crisis-awaiting-recognition, especially within the context of urban India, for an uncomfortably long time. But for some inexplicable reasons, it still continues to lag other "social" issues in terms of funding and investment priorities. Indeed, a significant fraction (in some instances nearly 40 to 50%) of the health expenditure of economically struggling urban households is directly on account of water-borne and water-related diseases.

But to come back to the title, alongside drinking water there is mention of the more generic terms of "searching," "impact," and "business model." So are we really talking about drinking water or trying to enter into discussions on what really constitutes social impact? Indeed, we do leave both the doors open for the reader; to the extent that if the reader were to reverse the order of the title, the case study, in all probability, would continue to hold comfortably on its own. Certainly, drinking water is in the fore-ground for most part of this case study. But rather than view it as an interested but still a somewhat distant audience would, we have tried to go behind the stage and witness the confusing and crude imperfection that make "local acts" like drinking water somehow fall in place, away from the comfortable clarity of a business model.

This trying to "get behind the scene" was, of course, not without its side-effects for FEMS3. Established in 2010 in India FEM Sustainable Social Solutions (FEMS3) was to act as a monitoring and evaluation arm of the Italy-based donor FEM Italia. The intent was, and remains, to promote micro-entrepreneurial ventures in both rural and urban India across water, housing, health and sanitation. The preferred mode of operation has been to form a set of partnerships around each issue of interest, and through the partners set up the specific micro-ventures.

However, the last three years have taught, and as this case study will show, almost forced FEMS3 to outgrow its monitoring and evaluation role, and instead step into hands-on program management, advisory and a raw entrepreneurial mode. And it is a change that FEMS3 has been all too glad to undergo, and one that its primary donor, Fondazione Cariplo has allowed FEMS3 to make by showing considerable amounts of flexibility.

This necessary change within FEMS3 is only a reflection of what, lately, in the social enterprise space is being termed “last-mile.” Put simply, it means providing a kind of continuous mentoring and program-management support to investees and project partners, and one that is certainly not shy of getting into the real thick of things. It may be a recent addition to the social enterprise dictionary but the need for this “last-mile” sensitivity and continuous hand-holding support has always been there. It has, however, had to struggle to get its due credit on the strategic agenda list of decision-making—especially, when it comes to highly local and decentralized solutions in urban pockets such as clean drinking water.

In our opinion, these are the types of interventions where it will be difficult to make “scale” the operative word as understood by its current popular usage; instead it will have to be more about “tedious and persistent repetition and replication” as far as a funder or an investor is concerned. Rather than seeing drinking water as a market for one or more social enterprises, it will, in the longer run, have to be a step-by-step process that looks to build a series of different partnerships across different cities and locations.

Why? It is not possible to put across any easily digestible logic for this. At the same time, neither is it a fixed “a priori” theory of change or an ideology that FEMS3 subscribes to. Rather FEMS3's argument is based on an understanding that it has acquired (and continues to) through its own experience since early 2010. In fact, FEMS3's first business model, on paper, was a more commercial market-based model where a given social enterprise would manage water plants in an urban setting through a micro-enterprise mode. Like all newcomers are wont to, FEMS3 too was convinced strongly about its initial idea and went out to look for that “ideal” micro-enterprise-forming partner.

This search proved to be a hit and miss trial, and a very much welcome education and reality-check. The search led FEMS3 from the metro city of Chennai to a small town in Tamil Nadu and back to the metro city of Bangalore before finding its proper rendezvous point in Agra. Along the way, FEMS3 had had to deal with changes in state government, impact of state elections on the dynamics of local municipalities, the microfinance crisis of “2010” making partners a little nervous about entering a sensitive area like water, resultant shifts in organizational priorities of its partners, and cases where partners simply failed to “see” a market and “business case” for drinking water.

At some point then FEMS3 had to acknowledge that a partner who is **fully** aligned with its social objectives, has the capability to form micro-enterprises, and continue to remain in the drinking water space is, at best, wishful thinking. Fortunately, in the process, FEMS3 was also exposed to the highly local character of water in urban neighbourhoods of India and the realization that there is no universal business template for drinking water. It was hardly a question of finding a site and setting up a plant and selling water cans. At the end of the day, given the sensitive nature of water, it was more about building very local partnerships with the community at large, few important stakeholders within it, the local

government and the NGOs operating within the target localities. The business parts had to be selectively “over-laid” on such a partnership platform.

In short, there was a need to add a very distinct capability to the initial “business” model, in effect turning the market-based business/enterprise model into a market-oriented community-centric approach. And the best bet to realize this capability and secure the intended impact was by investing in a local NGO or similar institution to bring into existence a local community-based organization that could manage the plant, i.e., investing disproportionately more in local organizational asset creation.

This capability, as we re-iterate in the main body again, is built around three guiding principles: (a) that the plant should not only be community-based but also community-managed and run on a financially sustainable basis; (b) financial surplus generated from the plant's operations is recycled within the community *to the extent possible* including towards solving other community issues; (c) and, **most importantly**, all decision-making has to involve local stakeholders at each step of the way and has to be, to the extent possible, fully participatory in nature.

But today talking about market-based, community, and NGOs in the same sentence is considered to be out of the ordinary and invites critical questioning. Questions are raised about efficiency, business capabilities, execution discipline and so forth. However, as the Agra experience showed us it was possible to put in place a strong partnership involving an NGO such as the Delhi-based Centre for Urban and Regional Excellence (CURE), Eureka Forbes that is a leading player in the water filtration business in India and FEMS3 itself that provided program management and hand-holding support to “incubate” a local management unit that in the particular case of Agra is a group of six women.

What should be the definition of success of such a partnership? Is it pre-dominantly the number of cans of water sold profitably per day in the community? In FEMS3's opinion, if you have a partnership of the kind in Agra it is *possible* to look a little beyond. The real strength of such a partnership is actually fully reflected in the strength of the local organizational unit that is put in place. And as the case study shows, this opens up a possibility for FEMS3 to think of extending social impact beyond only the economic criterion, in a way that is uniquely suitable to that particular locality of Agra.

Certainly such an approach cannot be run only on commercial capital. It will have a significant grant-based element. But then, in our opinion, it is increasingly difficult to see a fully commercial drinking water model that will be able to operate in complex poor urban neighbourhoods without a direct or indirect component of grant (or, to be more precise, subsidy) built into it.

We could be mistaken of course. In some sense, based on last three years and the Agra water project, FEMS3 is only starting to work its way through what could be a preferred approach (if there is one at all) and what is the right language to understand and evaluate the impact of such an effort against the complexity that urban pockets present in India. Is this effort going in the right direction? For FEMS3, the only indicator it can rely on as of today is the success of the six women that formed the SHG in Agra and, hopefully, a few more like them in the future.

As of May 2013, nearly 5 months after opening of the plant, the SHG has reached sales of 250 cans per day. It is a performance that is definitely on the right track. And that gives us confidence. Today on the back of learnings from Agra, FEMS3 is about to begin a second project in a starkly different and difficult locality of Mumbai with a new partner. It is a different urban neighbourhood, and has made FEMS3 go back to the drawing board on a lot of aspects.

We wish that it was a simpler case of proving or disproving a business model, but, whether we like it or not, it is more about trying to combine “market-influenced,” “community-centric,” “partnership based” and possibly a few more elements. There are readers who will be (rightfully) sceptical of the practicality of a vague mixture like this. It is but natural. FEMS3 too was at the beginning. But, we hope, the same reader also sees the richer possibility that such a community-centric alternative offers.

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I. *NEHRA KA NAGLA*, AGRA

In Agra, about 15 kilometres from the Taj Mahal, lies a low-income neighbourhood of Nehra ka Nagla. With its much relaxed pace of life, and a relative lack of noise (much unlike the crowded and bustling neighbourhoods in larger metros) a casual observer could easily mistake it as some village. But step outside of this neighbourhood, and you soon hit National Highway 2 that connects Delhi to Kolkata with busy traffic. It is not all that surprising then if someone tells you that Nehra ka Nagla falls in Ward 24 of the Agra Municipal Corporation and is even deemed an urban slum. The Trans Yamuna area, in which Ward 24 and other similar Wards are located, started acquiring a more "urban character" once a bridge was built connecting it with the rest of the city.

The expanding transportation network in India is continuously "lapping up" such erstwhile villages into the urban fold in a near invisible way. Over time, these villages find their identity changed to poor neighbourhoods surrounded by visible and rapid signs of urbanization whose basic benefits they are yet to feel in any tangible sense. Instead, the already existing problems of sanitation, access to water, electricity, and most importantly, secure livelihood options only get further compounded in this process of almost *casual* and *indifferent* urbanization. If left unattended to, these areas can very much become a replica of their more crowded (and more popular) counter-parts closer to the heart of the city.

But our present interest in Nehra ka Nagla is more specific. If we walk a little ahead in this area we would come across a sign-board titled "Nai Asha Swaya Sahayata Samuha" (*literal translation "New Hope Self-Help-Group"*). Following the sign-board soon lands a visitor up at a drinking water Reverse-Osmosis (RO) plant that is housed in a space immediately adjoining a household from the community. A common wall separates the household from the plant premises.

Step inside the plant and you find a well-tiled floor whose colour indicates it is of a more recent origin and seems to be regularly washed. On one side are cans of water neatly laid out in columns. The walls are covered with posters. One catches attention: it graphically illustrates the problems caused by drinking water in the locality including arthritis, diarrhoeal infection, joint pains, heavy stomach and so on. Another one advertises the benefits of drinking clean water (which is RO filtered) to a potential customer who may happen to drop by. And inside, within a closed room, is the reason behind the *marketing* poster: a 1,000 litres per hour (LPH) RO machine with its usual frills, and running on a 3 phase electricity supply provided by Torrent Power on a commercial basis.

For those used to the prevalent models of market-based solutions to drinking water in rural and urban India a description like above will be boringly familiar. They will immediately think that this particular plant is being run by some individual from the adjacent household who has probably entered into some form of partnership (as an employee or an entrepreneur) with one of the companies or social enterprises that specializes in manufacture of water filtration equipment.

But, on inquiring with the members of this household, it emerges that the picture is not the typical one (but neither is it a unique one). The household has simply leased the land where the plant is installed, for 3 years, to a group of women. The members of the household will refer you to a poster painted right outside on the entry wall of the plant. Indeed the wall is decorated with a logo of a water drop and, curiously, featuring four names: “Nai Asha Swaya Sahayata Samuha”, CURE (Centre of Urban and Regional Excellence), Eureka Forbes, and FEMS3. The first is the name of a women's SHG from Ambedkar Nagar in Ward 37 in Agra (3 kms from Nehra); the second, that of an NGO with an established presence in the city of Agra; the third is a leading player in the water purification sector in India, and the fourth, an implementation partner cum incubator. They happen to be on the same banner due to one joint interest: to provide clean drinking water to the 18 localities in Ward 37, which is amongst the most vulnerable in Agra.

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II. THE COMMUNITY AND WATER

The Problem of Drinking Water

That poor quality of drinking water is responsible for recurring health issues in urban and rural India is well understood and accepted. Research reports say that a considerable fraction of the health spend (sometimes to the tune of 40 to 50%) of households in poor urban neighbourhoods is due to water-borne diseases. Doctors within local dispensaries and clinics in slums repeatedly tell their patients to switch to cleaner drinking water options and better hygienic practices. So it is hardly a surprise to hear households in Ward 37 and other neighbouring wards in Agra complain of the ailments listed on the charts and posters inside the plant. And it is not difficult to see why.

In absence of municipal piped water connection, the primary source of drinking water in most of these localities in Agra is water supplied by private tankers. In fact, if one happens to visit these places during the morning half on any day there will be the common sight of water tankers entering and exiting these slums, almost, in a well choreographed manner. This queue of tankers is the water life-line of these households. But ask any household and they will be the first to point out how that it has serious reservations about where these tankers source their water from, the general level of cleanliness of the tankers themselves,

how the water is manually handled etc.

However, despite all of this, the households pay to buy water from these tankers, and regularly use it for drinking and cooking purposes. A survey done by CURE revealed that water is in fact a very visible line item in a household's budget, making up nearly 20% of the cost base in some of these localities. The households in Ward 37 end up spending anywhere between Rs. 500 to Rs. 1,000 per month. In summers the rates could rise even more: at times by 25% when in fact the *availability* of water may remain the same or even go down.

But why don't the households use ground water instead? Often in many cities of India one finds households having private bore-wells, and then using water from it, at least, for non-drinking purposes like washing, bathing, etc. Why aren't households in these localities doing this? It could cut down on a household's non-drinking water spend for sure.

When CURE, and later Eureka Forbes, did a testing of ground water samples, they were surprised to find extremely high levels of TDS (Total Dissolved Solids)—upwards of 5,000 particles per million (ppm) in some samples when the Indian Government Regulations prescribe that TDS in drinking water should at all times be less than 500 ppm at the very least. Thus, not only is the ground water in Ward 37 unsuitable for drinking and cooking, in a lot of cases it is unsuitable also for bathing and washing clothes. In fact the water is so hard that it leaves stains on clothes and, at times, even on floors that are hard to remove. And this is the reason to situate the plant in Nehra ka Nagla that lies in Ward 24 and not Ward 37. It was difficult to find a bore-well in Ward 37 with reasonable TDS levels. TDS levels upwards of 5,000 ppm would have made the design of the RO plant more expensive and also increased the future maintenance overheads.

But what was really shocking was the fact when detailed tests of ground-water were carried out even in Ward 24 traces of arsenic were found. It caught even Eureka Forbes by surprise as in their experience it was a phenomenon more common in West Bengal and it was unusual to find arsenic in these parts of India. As a result Eureka Forbes had to add an arsenic removal unit to their RO design. While such high TDS levels or traces of heavy metals may not be typical across India, this experience still hints that when it comes to water problems one has to be extremely cautious.

Retrieving a Familiar (but Forgotten) Approach

Addressing issues of quality of drinking water through a community water filtration set-up is typical of market-based approaches. Nehra ka Nagla too adopts the business elements from that model—it uses the same technology platform; water is priced at market rates; more or less similar distribution approach is used. But there is a difference from the popular

market-based approach—it lies in the ownership and management.

Today, it is becoming increasingly **less** common for a funder or an incubator in the "social enterprise space" to actively invest in and promote enterprise models that consciously attempt to synthesize a market-based approach with the traditional development-oriented mind-set. Instead, in the Agra drinking water plant a conscious attempt is made to give this synthesis a concrete form through the triad of an NGO, a commercial player and an SHG.

For CURE this kind of orientation is much more "natural" than for FEMS3 or Eureka. For them it may be new but certainly not a one-off experiment. Eureka's Community Fulfilment division, under whose mandate this project formally falls, has started adopting a similar approach with a few of its other partners. FEMS3, in the meantime, is actively looking to extend this approach to other cities.

As far as Agra is concerned, this partnership model is built on three principles which, incidentally, draw largely from the "development dictionary": (a) that the plant should not only be community-based but also community-managed and run on a financially sustainable basis; (b) financial surplus generated from the plant's operations (after the income to the SHG) is recycled within the community *to the extent possible* including towards solving other community issues; (c) and, **most importantly**, all decision-making has to involve local stakeholders at each step of the way and has to be, to the extent possible, fully participatory in nature.

But it is not a partnership borne only of principles and good-natured intentions. There is a very practical necessity that dictates why this approach can work out better in several situations as opposed to treating the poor neighbourhood largely as a "consumer market" for drinking water. While water is definitely a commodity that households can and will purchase, but the relationship of the community with water is a little more involved than that. It cannot be fully captured purely through market-based economic linkages. And it is worthwhile to look at water from this alternative perspective, which has also been the conventional way of looking at it for a long time.

A Household's Relationship with Water

What does water really mean to a household in these localities? One way to understand this is to see how a household engages with water. For most households living in localities with limited access to piped water, water is actually a "psychological hassle". If we take the example of Agra, it is the hassle of waiting for the daily arrival of the water tanker and living with an "anxiety of uncertainty" around it. Even when the tanker does come, each household has to ensure that it is in the know and it gets its share of the quota. Doing it

daily does take its toll. It is not difficult to imagine a situation, especially during summers, where the tanker is delayed and the impatient households get into heated arguments with each other in the fear that the tanker may not have enough water for all; or the neighbour may sneak in a little bit more than its usual quota given it is summer.

In Agra, the households were lucky as the tankers delivered the water very near to where they lived. But in several other localities in other cities, households often have to walk or travel to fetch water, wait in queues, and carry the water back; all of it taking up a considerable portion of the household's time. In some localities of Ward 37 that were situated at the back and away from the main entrance of the slum, the tankers would find it difficult to reach there. As a result, these households would find themselves in a regular dilemma unlike their luckier counter-parts who happened to be in more favourable parts of the slum.

For a household, then, very simply, the access to water comes even before concerns on quality and health. Water, at some level, is such a basic utility and even a *way of life* for any household that taking up daily stress on its account is what every household would desperately wish to avoid at all costs *if it had an option to*. For households in the poorer localities both convenience and quality are elusive even after regularly paying a market price *(and more)* for water.

This, in some sense, puts a household's *demand* for water in the same bracket as its demand for good housing, basic sanitation and primary healthcare. It also forces us to recognize that, somewhere, there is also a “rights-based sensibility” to providing drinking water which cannot be kept out of the picture, or in the background. And finally, it also links this demand for water to some of the other elements in this very bracket, especially sanitation.

A walk in any of the locality of Ward 37 will all of a sudden lead you to an open public space conveniently converted into a garbage dump. A network of open drainage runs right across most parts of the locality, filled to the brim and passing right outside each of the households. According to CURE's market survey, open defecation adds to the problems with only 10% of community (public) toilets in use due to poor (or lack of) proper management.

What is more, all of this seems to contrast distinctly with the overall rural feel of this area. In a way, if it wasn't for this visible lack of sanitation and cleanliness, Ward 37 may actually manage to pass itself off, in the minds of most one-time visitors, as just another semi-urban neighbourhood instead of a slum.

But if improved health is indeed the ultimate objective of a clean drinking water intervention, then, a stand-alone drinking water intervention alone will lose its efficacy if other issues of toilets, health education, an improved sewerage system, waste disposal do

not come together *at some point*. But, then, it is hardly practical (or advisable) for any external stakeholder, including a funder, a social enterprise, or a water equipment provider, to approach all of these aspects. The scope is both overwhelming and outside their capacities. But, on the other hand, there are organizations that may be in a position to do so—the ones already rooted in the locality.

For these organizations this kind of an outlook and approach is the way they have naturally evolved, and despite being outsiders, they have very much become a part of the community. Thus they are in a far better position to paint a more holistic picture, and keep at it by linking one part of their effort with the other over time. This web of interconnections will confuse any outsider. But it is a unique asset if you are interested in setting up a local enterprise in constantly evolving (and complex) urban neighbourhoods.

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III. CURE: THE NECESSITY OF A COMMUNITY BASED ORGANIZATION

CURE is as good a representation of this as any. It has been working in Agra since 2006 and, over the course of last 8 odd years, has been involved in a number of partnerships with Agra Nagar Nigam (ANN), Cities Alliance, WSP (World Bank's Sanitation Program), USAID and National Institute of Urban Affairs (NIUA). It has been involved across a variety of issues from macro planning exercises for slum up-gradation in Agra to very specific micro-planning and implementation projects that cover public sanitation, improved housing, livelihood opportunity creation including a popular "Taj Heritage Walk."

In all of these engagements, CURE, like any community-based organization *should*, has "pulled" the community into the decision-making process so that the community knows what decisions are being made on its behalf and has an important say in those. It is this process of being in a constant dialogue with the community that gives CURE a set of competencies that makes partnership with it a necessity (and not simply a choice), if the aim is to guarantee that the water enterprise remains community-centric *at all times*.

For example, CURE was involved in an extensive GIS mapping process of all slums in Agra as well as conducting baseline and household surveys. Its knowledge—of the topography of Agra; physical layout of the neighbourhoods; the material, economic and socio-political conditions; important local actors and their dynamics—all proved very useful when it came to deciding which of the many slums should the water plant focus upon, conducting marketing research, finalizing the location for the water plant, identifying a land-lord and negotiating the rental agreement with it to lease the space for the plant, getting a 3-phase electricity connection, and so forth; right through to the point when the

plant was first switched on and the very first water can filled-up.

CURE's involvement across a range of issues had a fortunate implication, i.e., its relationship with the ANN and the other stakeholders in the local government. In fact, ANN has provided CURE with an office in its building which is indicative of the credibility that CURE enjoys with the local government. For the proposed water plant this was an unplanned for advantage. CURE was able to get permission and a “No Objection Certificate” (NOC) from the district magistrate for the water plant to operate in Ward 24 and serve the households in Ward 37. Those aware of the landscape of local governments in urban India will be able to appreciate how much this recognition matters. Indirectly (and somewhat ironically), it makes the local government a fifth (and a welcome) partner in this *market-based social enterprise*.

Beyond this CURE brings something to the table that is unique only to a community-based organization—a set of organizational assets it has created on the ground and an ability to develop more. In some way, this ability is central to FEMS3's partnership with CURE and allows FEMS3 to give a “community character” to the whole enterprise model. And FEMS3 was lucky to tap into one of the existing assets—a self-help-group (SHG) of 6 women who were set up as part of another initiative, City Wide Slum Upgradation Plan (CSUP). This SHG “Nai Asha,” was selected by CURE among a few others formed under this scheme, based on its capacity and temperament to play the role of “plant managers.”

We said “lucky” because the process of forming a SHG is not a simple one. It is not a simple question of finding 6 women and registering them under a SHG umbrella. The group members have to learn to manage their inter-personal dynamics, and at the same time, someone like CURE has to learn to interpret the SHG's intent, motivation, values, priorities and of course, ability. Generally the focus is on ability and efficiency. But the “softer” factors matter the most in ensuring that these community structures survive well. Formation and development of any SHG is a tiring process of on-going relationship-building and mentoring that may, at times, even require several cycles to get it right with a particular group.

Which is what CURE started providing much before the plant was set up and it is also a support that CURE would continue for nearly a year after the plant is operational. And by the word “mentor” both CURE and FEMS3 understand that it is *enabling* decision-making and *not making* decisions on behalf of the SHG. CURE engaged the SHG right from the planning of the plant site to even selection of which tile to use for the flooring. The SHG has to learn by fumbling, struggling, and making errors; but *within limits*. This space has to be compulsorily provided to the SHG by CURE else the “umbilical cord” with CURE is never cut and it will remain, at best, CURE's plant and not the Community's.

There can be a systematic design on paper on how to do this process step-by-step; but, in the end, only one thing works the best: regular interaction with the SHG. To this end CURE has deployed a dedicated resource at the plant site to provide daily support and help to the SHG members wherever required. This is complemented by regular involvement of other members of CURE team. So far, the SHG is currently maintaining daily cash-flows, a sales ledger, a database of potential clientèle, has managed to source logistics and distribution to a third-party from the locality and is actively involved in marketing activities.

There is definitely improvement possible in each of the above-mentioned functional areas and more that will be part of the review and feedback mentorship cycle with CURE. Very much like, to put it in more popular terms, as a classic venture capitalist would engage with its investee to provide "*technical assistance*." Except that, here the "exit" happens when the SHG has given hints that it "feels" that it is its *own* plant and realizes that it *has* to make it work in a financially sustainable manner. So, is our SHG on its way?

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IV. NAI ASHA (A "NEW HOPE"): BUSINESS THROUGH THE EYES OF A SELF-HELP-GROUP

To know that, we must go back to our trail in Nehra ka Nagla that we left unfinished and talk to the lead characters in the whole act—the ladies from the SHG. We had in our walk reached inside the plant. It is already 10.30 am with the sun clearly reminding that the plains of North India are not the best of places to visit in summers. Inside the plant, four of the six ladies are there, almost a full quorum, knowing a visitor is coming and wants to speak to them. They do acknowledge your presence but most are quite busy filling up and arranging a bunch of water cans. One of them approaches you and leads you inside to look at the RO plant. Apparently, all the ladies are quite proud of this new piece of machinery.

You also soon figure out, from the body language, that the lady that led you inside is also someone with a *sense of position*. She is the treasurer while there is also a president and vice-president. Obviously, the SHG has its own little organization structure with basic roles and responsibilities laid out. The ladies spend time at the plant site as well as in the localities talking to households and other stakeholders on an on-going basis. CURE has helped them chart a schedule based on the total time available across all the ladies together after accounting for their household responsibilities. The SHG members, in turn, have developed an internal understanding and manage flexibly within this framework.

A Clock that has Started Ticking

But as we are about to sit down to discuss the plant operations, there is a crackling and loud sound of a diesel engine at the gate. A tempo has arrived and the entire dynamics of the place change. Three of the ladies immediately get busy. Two concern themselves with getting the empty cans that the tempo has brought from the first round of delivery in the morning. The empty cans have to be washed, rinsed and made ready to be re-filled. In the meantime, the third lady deals with the tempo team to load the already filled up cans kept ready for the second delivery round.

But, interestingly, the treasurer lady who is officially in charge of hosting the visitor, soon gets restless. After a point, she excuses herself and joins her team, helping out the lady who is dealing with loading of the filled cans. Ensuring that the tempo is off at the earliest is certainly far more important over entertaining a curious visitor. And we are all too glad for this.

Once the tempo has left, the treasurer, trying to explain her restlessness, points out that she is very particular about the physical stock-taking and counting of cans while they are being loaded and unloaded. Every can has to be accounted for at the end of the day. In the past she had caught a few mistakes and also fined the tempo driver as well as her SHG ladies if need be. She also does not like the tempo waiting for too long at the plant site beyond what is really necessary since it delays the delivery to the households.

For the ladies, this daily rhythm of the tempo is like a clock around which they plan, get anxious about, wait eagerly, and feel a sense of accomplishment at the end of the day. For them, all their marketing and business development activities have to finally translate in more and more tempo rounds. It is their most important "business parameter". Filled to capacity, the tempo can ferry 50 cans in one trip. As of date (i.e., mid-April), the tempo does, on average, 3 rounds resulting in average sales of 130-150 cans per day, which is no small achievement for the short period since the plant first opened in January 2013.

In the meantime, the SHG has set itself a target of getting in at least four rounds of tempos daily and to register average sales of 200 cans per day. Given it is summer, they believe it is a reasonable target. The sales have certainly seen a sharp jump in the month of March and April with the onset of summer[1]. Just a couple of days back, the SHG was quite excited as they managed to register a sale of 186 cans, their highest till date. And interestingly, they have started getting "event-specific" orders too—marriages, birth of a new child—occasions when the household wishes to serve the best quality food and water. This means that there is a certain "prestige value" associated with the "20 litre can" that is leaving the plant site in Ward 24.

1 Indeed, the sales have already reached 250 cans as of end of May 2013.

Are People Paying For "Nai Asha" Water?

So what is the price at which these cans go? The treasurer, sensing she is obligated to take this question up, says Rs. 10 for a 20 litre can. Is this a fair price? She immediately says yes, as nearly half of this goes towards ensuring door-step delivery and the rest is needed to cover plant costs and earn a little surplus. If the business does not start making surplus, how will we grow our business she asks. Well, you can't dispute that now can you?

But why door-step delivery? **Because the households have explicitly asked for it**. Ward 37 is at a distance of 3 km from Ward 24 and is certainly not easy to travel to especially in the summer heat. But what about opening a centre in Ward 37 and people coming there and collecting their respective cans? Apparently, the households would rather prefer the cans to be delivered at their household. It is something that they are already used to from the water tankers and they would prefer that any new water provider also meets these "service levels" even if it means paying more.

And to provide door-step delivery takes effort. The SHG has a roster of client households that it would give the tempo owner and work out with him what particular localities and households will be served on each trip. In each trip, then, the tempo will carry the filled cans to the households and collect the empty cans from the previous trip. For loading and unloading these cans and carrying them back and forth from the households, the owner of the tempo has had to hire two helping hands.

But do people pay this amount regularly? After all, the households in this locality are not exactly assured of a secured livelihood. As per CURE's survey of 532 households "*only 27% of the households have formal employment while 44% are daily wagers and 26% self-employed in micro-enterprises that dot Agra.*" And surprisingly, in the same survey over 60% of the households said that they currently pay between Rs. 1 to Rs. 5 to buy 20 litres of water (that meets all their household needs and not only drinking or cooking), and only 10% said they paid between Rs. 6-10 while a mere 5% paid above Rs. 11. So paying Rs. 10 for water regularly is not something that most households are accustomed to.

But as you go through the daily cash book and sales ledger from January to March 2013 you notice that the money is collected at the end of every month and that the households do pay. The SHG does not recollect any notable instances of non-collection or non-payment. Most households are clear that they would settle for nothing less than door-step delivery even if it means it costs them more. In fact, Rajesh from CURE echoes this with a sense of satisfied accomplishment. When the SHG plant was started, local competitors (there were and continue to be a few) did cut prices. But the households were happy to continue to transact with the SHG plant provided **they were assured both convenience (door-step delivery) and quality at the same time**.

An Expanding Understanding of the term "Market"

As discussions with the SHG continue, you get to experience one more of the standard features of life in these parts of Agra; a power cut that will likely last for a couple of hours, if not more. Once more the "business concern" switches on. The ladies get into a discussion of how many more cans need to be filled before the tempo comes again for its last round of the day. Will the power cut last very long? If the electricity does not come back, the tempo will be idling, something that the SHG members seem to have developed a natural "business-like" aversion to.

But, this also provides a talking space to really know what the plant means for these ladies. All of them unanimously say, that, above everything, the **plant is an *option* for the community**. And the ladies are confident they can make a market out of this. Every day two or three of the SHG members are in the field doing active marketing, talking to individual households, holding events where people can sample the water and hear about its benefits, etc. But, in the process, they have also realized that the term "market" does not only mean households or events. It also means exploring other touch-points where the same households would come into contact with drinking water, one of them being the places where they work.

In fact, a reasonable number of households in these localities work in the surrounding metal welding factories. Accordingly, the SHG went ahead and spoke to one such outfit and the outfit has even expressed an interest to procure 50 cans on a daily basis. The SHG has given a quote on price (higher than Rs. 10 of course) and are awaiting feedback. When we use the term "SHG" we do mean the SHG and not CURE or anyone else. It was the SHG ladies who went and had a talk with the concerned HR department and presented their plant. The CURE representative accompanied them but the SHG did the talking. It is certainly a first for the ladies, and also an example of, what in the business schools, would be called attempts at "cross-subsidization."

A Business to Account For

Usha Devi (our treasurer lady) will invariably ask you to give "expert" inputs on her book-keeping. As an "expert" you suggest may be that she should also start preparing monthly profit and loss statements to get a better idea of profitability. That way, the SHG would know if it is making business profits. She agrees and says that even CURE has given her this input. She has become quite used to the cash-flow by now and is keen to see what her efforts at P&L creation lead her to.

Lying alongside the cash book and the sales register is also the pass-book of the SHG with the ubiquitous logo of the State Bank of India. You idly flip through it and two

transactions catch attention. The first is a credit transaction of Rs. 18,000. It was the start-up capital pooled in by all of the SHG members wherein each of the members had made a contribution of Rs. 3,000. Both FEMS3 and CURE agree that grant-based support would be restricted to capacity building of the SHG, capital for infrastructure development, and some initial working capital support, but not to finance salaries of the SHG group. The SHG would have to be continuously conscious of the fact that it has to earn its salaries out of the plant surplus over time.

Interestingly, there is a debit entry of Rs. 11,000. Usha Devi explains that the SHG had (somewhat pre-maturely) purchased a small auto to build up their distribution but then the sales expanded rapidly so that they had to go for a bigger vehicle like a tempo. But the SHG has in mind a specific locality where they could put the auto into use again in the near future. There are also a couple of other banking entries that show cash being deposited at the end of the month; evidently it is the cash surplus left after all payments are made at end of each month.

The SHG is starting to slowly see that the tempo coming and going links not only to sales and work on the field, but also to hard cash flowing into and out of their bank account and that this cash has to be managed. External financial support is not going to be there for long. When this learning is firmly cemented, a SHG will have transformed into an enterprise-mode, and the "exit" for FEMS3 and CURE would be definitely in line-of-sight.

Beyond Business: A Sense of Identity

But what do the ladies intend to do with the money? Invest more in the plant of course, they will tell you. If you prod them a little, they will say improve their own houses and the community in which they live. But what does the plant mean to them at a personal level? How do they manage both the household and this work? The ladies simply smile, and say, in a matter-of-fact way, that they just have to adjust and manage it. There is no question of letting go of the plant work. Their bigger concern right now is to increase the sales and ensure there is a way to better monitor their local logistic partner, and above all, make sure the plant starts making consistent cash surplus at earliest possible.

The "litmus" test for the SHG of course will be if it can see through the monsoon and winter season with reasonable average sales. Will the SHG manage it? At this stage, anyone who doubts their ability to "pull it off" is, possibly, right. But even those highly sceptical about the success of the SHG will have to appreciate that what is being put in place in Wards 24 and 37 of Agra matters a lot *in that context,* and should be assessed **largely against that particular local context.**

None of these ladies have even passed secondary school. The highest qualification is

that of the *president* who has cleared 8th standard. For most of these ladies, it is almost their first job. It must be remembered that, in these localities of Agra livelihood for women is a serious issue and most manage with irregular jobs. The water plant for the ladies is not only about providing water to the community but having an employment option that could possibly convert to a long-term secure employment. More importantly, being a manager and co-owner of such an option again goes much beyond a simple livelihood question. A group of women entrepreneurs is not the most common sight to be seen in Ward 37 for sure.

For the SHG members, then, the plant is a sense of identity and one that they would desperately wish to preserve. For them, “Nai Asha” is not simply a title on a banner that is meant to read well and sound nice for a funder, government official, or the occasional information-hungry visitor. It is about making it a way of life for themselves, and through them, the community in which they live.

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V. A FUNDER'S PERSPECTIVE

"Local Partnerships" and Social Impact

It is easy to see that the real value of a project like this is very much locked in the local management unit such as the SHG. Once such an organizational unit is in place in an area and develops a certain operating history, it is then possible to have it inter-connect with other local interventions and resources in novel and unexpected ways, and, thereby, make the plant a lasting fixture within the local ecosystem.

As an example, CURE has already linked the SHG with a Community Credit Fund set up under the City Slum Upgradation Plan (CSUP) of Agra that covers all 432 slums in Agra. The SHG women are aware of this option and intend to draw upon it in near future probably for their working capital needs or investment to expand their distribution. CURE also facilitates and provides inputs to a set of health centres in other nearby localities. If there is demand for drinking water within the vicinity of these health centres, it is not a stretch for CURE to link the plant in Nehra Ka Nagla with these health centres—all with little incremental cost to CURE or for that matter to FEMS3.

> In some sense, it is really these inter-linkages that can be deemed *(to use popular terminology)* the "social innovation" component in this whole exercise. Indeed, social innovation, if it happens, will most likely happen at this much finer level—slowly and almost invisibly, without making much noise about itself; in a rather dry, matter-of-fact manner.

For FEMS3, linkages such as the Credit Fund or the potential Health Centres could also "amplify and leverage" the financial resources that it has put into this enterprise. All of these take a simple drinking water intervention and extend its impact much beyond water. In a way the involvement of the SHG has already integrated, permanently, a livelihood component in the project.

But how deep can this impact go? This is very difficult to predict and capture in a business plan document. But the very act of partnering with an organization like CURE, that has a certain history in that environment and a sense of accountability to the community, allows FEMS3 to build in a strong **possibility** of a much richer, more permanent, and varied impact *at the design phase itself*. This kind of impact is no longer left to be a fortunate side-effect of a purely market-based water intervention. Rather, it is consciously married into the locally-run water enterprise at the very start. At the end of the

day, this possibility itself is a huge source of comfort to any incubator of micro-enterprises like FEMS3.

The Funding Approach

For the Agra project the financial support to FEMS3 was in nature of a grant by FEM Italia. By no means is this the only type of financing support possible for a project of this nature. It is quite possible that another funder (or even impact investor for that matter) may wish to structure this support differently and not keep all of it grant-based. In that case, what portion of this grant could be “priced” into the business model? And what, if any, should preferably not (or cannot) be costed into the model?

To help answer these questions we have classified all the budget heads allocated to this project into three groups as follows. Alongside each group we have listed an indicative set of items comprising the group, the fraction of the budget set aside for these, and finally, if an investor did wish to “cost” this set of expenses what could be one of the possible and most viable alternative from the project's perspective. Please note that the figures are drawn from the original budget and not based on actuals, which will be equal to or less than the budgetary figures.

As the illustration on the next page shows, the financial support was provided to cover the initial set-up costs of which a large portion was towards sourcing and installation of the machinery from Eureka Forbes. In addition, a provision was made to make available working capital support for a period of 2 years to the SHG, **if need be**. This line of support for working capital would be drawn by the SHG only on a need basis. The aim of both CURE and FEMS3 is, of course, to ensure that the SHG does not need to rely on this line of support for too long and where possible, make available other lines of credit like the community fund under the CSUP mentioned earlier.

It is possible that at least part of the capital expenditure is something that a funder can look to “load onto” the business model as an interest-free loan that is amortized over a 7 to 10 year period that matches the depreciation cycle of the RO equipment. Moreover, the same funder could also look at providing micro-loans (either interest-free or at nominal interest charge) for the SHG's working capital requirements.

But when it comes to the expense category “Local Program Management & SHG Development” FEMS3 believes that it is far more appropriate to treat this as an investment into creation of a more “intangible” organizational asset in form of the SHG. In a set-up like this one, grants will be the more preferred route. In more commercial terms, a funder could “view” this expense category as a quasi-equity put into the project to create an organization de novo.

Classification of Budgetary Support

Group	Description	Fraction of budget	Alternative financial support?
1 Capital Expenditure	• RO Plant • Set-up costs including testing, installation • Ancillaries including cans, membranes, cleaning agent • Plant insurance • Initial marketing	40%	Interest-free loan over 7 to 10 years---same as depreciation period of the RO plant
2 Local Program Management & SHG Development	• CURE Staff Costs including dedicated resource deployed with the SHG for a period of 2 years • Training • Incidental expenses	47%	Preferably grant-based
3 Provision for working capital support	• **To be drawn only a need basis** • Utilities including rent, electricity • Plant AMC and other incidental maintenance expenses • Testing & Quality Control • Marketing-related support	13%	Interest-free micro-loans

It should be noted that this amount is not insignificant. Nearly half of FEMS3's budgeted support was reserved for the purpose of capacity building of the SHG through CURE stretching over a period of 18 to 24 months. Further, this expense category hides a number of other costs including that of market research by CURE, liaising with the government, and other local stakeholders such as the landlord, i.e., basically creating some kind of an enabling local environment in the very first place for the plant to be operational.

Contrary to popular perception, the largest investment is not locked into the technology platform but rather in the SHG and the network of local relationships created on the ground. And, as we pointed out in the previous section, this is also where the largest potential for driving social impact through this water plant is really locked in. The financial view-point highlighted above simply teases this point out and makes it plainly visible.

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VI. FEMS3: A WELCOME "IDENTITY-CRISIS"

It can be argued that this investment into CURE and into the SHG is a one-time investment. Instead if this investment went into a dedicated water enterprise there would be learnings that would be captured and retained within the same organization that could be applied in other locations as the enterprise expands. This argument is tempting. But, as a matter of fact, the budget under the head "Local Program Management" is to draw upon CURE's **existing** expertise and know-how of the locality and its relationships. The cost of building this afresh for any outside social enterprise is likely to be significant than what one would like to believe. In fact, it is really FEMS3 that is drawing the benefit of the investments that other funders have historically put into CURE.

Of course nothing prevents FEMS3 from expanding this initiative within Agra itself like any individual social enterprise would most probably do, and thereby utilizing to the fullest its specific investments put into CURE and the SHG development process. But as far as the argument about losing out on this competency "once FEMS3 would move out of Agra" is concerned, as we illustrate later, another city will mandate its own set of local community-based competencies. Thus, it is not an all or nothing question of "losing it". Of course there will always be a pool of generic competencies. And that is precisely the role of FEMS3—to become that vehicle that allows such competencies to be slowly internalized within itself so that these are put again to use in the next partnership it creates.

Thus, it is more than evident that for FEMS3, whatever be its official mandate, it can hardly be a simple question of chalking out a proposal for a micro-enterprise, raising funds, setting aside a certain budget, allocating it to CURE and the SHG, and then monitoring it on a periodic basis.

Indeed, in the title of this case study we used the verb "Constructing." And we chose to put it in quotes to emphasize it over two other competing candidates, i.e., "drinking water enterprise" and "local." Because *in essence* this is what the process of setting up a project like this is about: putting in place each partner brick-by-brick and then converting each of these partnerships into a working relationship.

For example, the idea of the SHG group managing the plant was very much part of the agreement that FEMS3 and CURE mutually agreed to. The agreement had details around how the SHG could operate, what support CURE would provide, and more importantly, what mechanism would need to be put in place to ensure that there is financial transparency, governance, and accountability of the SHG. And most critically, what could

ensure continuity of the plant after FEMS3 exited the project. FEMS3 would have loved nothing more than some kind of guarantee on this front.

But the simple answer is that "when it really comes to it, there is *no* guarantee." A legal provision in an agreement is a necessary but quite a weak guarantee. It is no substitute for the commitment that CURE itself would "feel" for the project. And the only way to guarantee continuity of the plant would be by ensuring that the SHG and CURE are bounded—not legally or formally because of a mandate by a third-party; neither out of only a sense of moral duty on part of CURE; but, fundamentally, because each firmly believes that **it makes practical sense for them to do so.** For CURE, because it ties into some of its current and future work; and for the SHG, because it knows that CURE's informal support is highly desirable if the SHG is to become self-reliant in the near future.

And this can only happen when both SHG and CURE feel *a sense of ownership* for the project. If CURE would look at this only as a project and an obligation to a funder this exercise would not go progress beyond a point. Similar would be the case with Eureka. There would be technical issues and on-going maintenance requirements in the future. FEMS3 cannot always be there to ensure that Eureka provides these services at all times. Eureka has to draw upon its service centre and resources that are, in all likelihood, part of its core business. For Eureka too, then, providing this kind of support has to make practical business sense. It has to align with the work that it does and not as a one-off CSR activity. Whichever angle we look from, from the very start, it cannot simply be a "FEMS3" project.

But this sense of ownership does not happen in one or two meetings where all the partners come together, brain-storm and sign an agreement. It is a *process* where each partner slowly realizes that, **in that particular local context,** what is really required and what exactly is that it can contribute. That is why it was necessary to have a participatory decision-making model from the start. It is about making a plan, and then, from the very next day, be ready to continuously modify the plan in bits and pieces, with all the partners adjusting to the changes, provided, of course, if these changes better the community's interests**.**

> It was precisely to ensure that this understanding is maintained at all times that FEMS3 had to design and program manage this overall exercise. In effect, what CURE is continuing to do with "Nai Asha" FEMS3 has had to do at an overall project level. It had to "out-grow" its role as someone who only demands accountability on how money is spent, and instead, become a *fourth implementation partner*.

At the outset, FEMS3 had a choice to take one of many positions:

> "We have thought through the entire business model and this is MY idea that has to be implemented in this manner";
>
> "I give complete space and freedom to my partners and I will simply be hands-off and come in only at *strategic* points";
>
> "Let's all agree on a detailed project plan but, then, I enforce strict monitoring";

OR

> "This is my broad idea but here is what you think needs to be changed about it and what our technical advisor believes may make better sense; BUT will it be in line with the SHG's capability as it stands today? Finally, are we in line with the community's interest on this point? Let us take the immediate next step and discuss once again."

FEMS3 **consciously** chose something similar to the fourth option. It meant being involved in decision-making not to influence or "shape" decisions but rather to understand the reasons, learn along the way, and where necessary, put across its own point of view. A necessary part of this was, of course, being aware of the detailed field context as far as possible. At one stage, FEMS3 invested in bringing in an independent consultant to map out he detailed field context from a business model perspective so that it could work with CURE and the SHG to put forth practical suggestions to develop the business outline. In a way, the transition from a monitoring and evaluation entity to an incubator-cum-entrepreneur happened without FEMS3 realizing it at that time.

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VII. THE WAY AHEAD

Coming back to our earlier question, wouldn't it be much easier if one social enterprise would take up all these responsibilities? Doesn't this process of working with many partners seem a slow, tiring and a complicated process? Is this really the role of an incubator, a funder or an investor? Today, in the discussions on market-based solutions most would instinctively (and before anything else) ask is such an approach really scalable?

FEMS3 does not have a definitive answer. But it knows that an intervention, like water, is tied in a very intricate way to the specific locality in question and is beyond off-the-shelf frameworks and approaches. Indeed, each not-so-straightforward slum-like environment presents its own story and certainly needs more than one author to script an answer. And one of the "authors" *has* to be a community-based organization that can read and interpret that story the best. If the slum and the story changes it means putting together another set of authors, i.e., working partnerships and relationships.

Finding the first partner and putting in place the first drinking water project has been a challenge for FEMS3. Prior to this project it had spoken to a number of organizations including one micro-finance organization, a few not-for-profits as well as for-profits. It will be more correct to say that FEMS3 *almost, and quite accidentally, stumbled upon* CURE and Eureka Forbes. The idea of doing the project in Agra with CURE was finalized in January 2012. Similarly, FEMS3 had initiated more general conversations with Eureka in May 2011. It was only in June 2012 that Eureka became a formal part of this particular project. With both CURE and Eureka, it has been nearly a year and a half of very active ground-work of relationship-building, of business model generation and community development before the opening of the plant in January 2013.

But it does not mean that it should always take this long. On the back of its experience in Agra, FEMS3 has now initiated a second project in the Central Mumbai neighbourhood of Govandi. For this project FEMS3 will again be working with Eureka Forbes and an NGO called Apnalaya that has been present in that locality for over 20 years. The relationship built with Eureka extends to Mumbai. Even CURE would participate in the process by sharing learnings and coming to Mumbai to work with the Apnalaya team if need be.

From the outside, the specific pocket within this neighbourhood that Apnalaya and FEMS3 are looking at is a stark contrast to Nehra ka Nagla. It is very much the popular perception of a slum of the archetypal "Slumdog Millionaire" variety. It *appears* much poorer at first sight, living conditions very harsh, community very much agitated due to a number of issues (especially housing security). Is it then a slum that fits the framework of a

market-influenced intervention? If someone were to visit this locality they would inevitably ask themselves the question where indeed is the so-called market space for a drinking water intervention?

But spend a few days there and the same point as in Agra hits home: while the community could wait a long time for the government to rehabilitate it and provide it with water connections (and it should certainly continue to pressure the government to get its due), in the long interim period the community has to take charge. And like in Agra it will be through some form of local unit organized around an economic activity. It is this organization that has to realize and confirm whether there is a market, and, if yes, how does it propose to tap into it. Like in Agra there will be no spoon-feeding (especially monetary) to the local group that eventually does decide to take this task up.

For sure Govandi will not be the same as Nehra ka Nagla / Ward 37 in Agra. Specific elements of the model will certainly require a (possibly significant) re-look. The personality of households in this slum is different in many ways from those in Agra. Accordingly, the dynamics of the SHG formed here may have to be managed very differently. It is simply hard to escape the fact that each locality seems to *demand* its own drinking water model. So to the question "Is the approach scalable?," the answer is that the approach is certainly "repeatable and replicable." But it is not a specific business model but this template of "partnership-cum-organization building" that has to be very patiently replicated.

After all, if you have to construct a house, you have to start from the foundation every time and add bricks one by one. There is no short-cut to that unless someone invents a ready-home to be purchased off-the-shelf. And we all would wish for that wouldn't we? But then, would we enjoy living in one? Deep down, all of us know that we want a house that really represents "us". Why should it be any different when we talk about constructing something for the communities and neighbourhoods on issues that affect them much more deeply than we can fully understand, and through which we, hopefully, wish to touch them in a more *genuine* way?

FEM Sustainable Social Solutions is a not-for-profit company registered as a Section 25 under the Indian Companies Act and based out of Bangalore, India. It works with project partners across rural and urban India to to create and replicate micro-entrepreneurial models and services for the working poor. In addition to drinking water, FEMS3 has also worked across urban waste management in Bangalore, affordable housing in rural Madhya Pradesh, Tele-medicine pilot in Chennai.

For more information as well as to explore a possible partnership please reach out to

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ABBREVIATIONS

ANN: Agra Nagar Nigam, local municipal body of the city of Agra

CSUP: City Wide Slum Upgradation Plan, Agra

CURE: Centre for Urban and Regional Excellence, New Delhi (NGO)

FEMS3: FEM Sustainable Social Solutions, Bangalore (Section 25 Company)

LPH: Litres Per Hour, unit of measure of capacity of a water filtration equipment

ppm: Particles per million

NIUA: National Institute of Urban Affairs, New Delhi

RO: Reverse Osmosis

TDS: Total Dissolved Solids

SHG: Self-Help-Group

WSP: World Bank's Water and Sanitation Program

USAID: United States Agency for International Development