

# LISTENING

The following pages present the contributions of those working with poor urban and rural communities in Africa, Asia, and Latin America to achieve water, sanitation, and hygiene.

All contributions were made by personal interview, and this has limited the number of countries that could be represented.

Considerations of balance across both contributors and issues, as well as the limitations of space, mean that not all who have taken part in this process are represented in the printed version of this report. The WSSCC would like to thank all of the following people for their time and expertise:-

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The opinions expressed are those of the individuals concerned and do not necessarily represent the views or policies either of the WSSCC or of the organisations by which the contributors are employed or contracted.

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**SHEELA PATEL** IS A FOUNDER MEMBER AND DIRECTOR OF THE NGO SPARC (SOCIETY FOR PROMOTION OF AREA RESOURCE CENTRES). SPARC WORKS IN PARTNERSHIP WITH TWO OF THE LARGEST PEOPLE'S MOVEMENTS IN INDIA: *THE NATIONAL SLUM DWELLERS FEDERATION* (NSDF) AND *MAHILA MILAN* ('WOMEN TOGETHER'). THE ALLIANCE HAS SUPPORTED COMMUNITY-LED SANITATION PROJECTS THAT NOW SERVE MANY MILLIONS OF SLUM DWELLERS.

WHEN seven million of a city's inhabitants lack adequate sanitation; when excrement degrades their environment and pollutes their water; when women have to wait until nightfall to defecate or else defecate onto sheets of paper; when hygiene-related disease continues to kill children, and governments continue to build latrines that are filthy and dilapidated within months, there comes a point when slum dwellers need to do more than just keep begging for basic services.

They have to start asking why it is that, decade after decade, governments promote initiatives that are known to fail. They need to question the attitudes and power-relationships that underpin urban poverty. And if 'sanitation for all' is ever to be more than only a target, they must find a way to renegotiate those relationships.

There can be no doubting the failure of the government-led approach to sanitation in the cities. In the 1990s the *National Slum Dwellers Federation* and *Mahila Milan* ('Women Together') conducted a survey of 151 slums that, taken together, were home to more than a million people. They found that the municipality had provided one toilet seat for every 1,488 inhabitants, and that 80% of them were not working. Doors were broken, pans were clogged with excrement, septic tanks were overflowing and sites were littered with garbage and faeces.

Despite that kind of track record, city politicians have consistently refused to entertain the notion that slum residents might be able to deliver better, cheaper, more sustainable toilets than government 'experts'. It must be evident that new and workable solutions can only come from the people who truly understand the environment of the slum – the residents. And yet the politicians and officials continue to disparage the idea that

local people might take a lead in the provision of urban sanitation. Why?

**'Concern over the living conditions of slum dwellers is tempered by the unspoken belief that they are a blight on the city'**

There are a number of predictable reasons: politicians don't have to face the daily struggle of life without sanitation; bureaucracies are corrupt and inefficient; slum dwellers might not have demonstrated their technical and managerial competence. But if you analyse the situation more closely, you will find that the failure stems from an entrenched attitude of prejudice against the urban poor and a style of governance that deliberately promotes weakness and dependence.

#### Whose city is it anyway?

Very often, concern over the living conditions of slum dwellers is tempered by the unspoken belief that they are a blight on the city. Middle and upper-class urbanites perceive the poor as irrational freeloaders who have left 'nice' villages in the countryside to spoil the city with their unsightly homes, their spread and their squalor. Municipal governments continue to believe that the slums are an unfortunate and temporary aberration in the life of the town, and that investment in rural development will surely stem the tide of migration. They refuse to recognise the fact that people come to the city as an intelligent and sometimes inevitable response to changing economic patterns and acute levels of poverty that have made life in the village untenable. And they refuse to see that it is the men and women from the slums who keep the city clean, keep it fed, keep it moving, productive and prosperous.

As long as the governing elites perceive the poor as an extraneous and undesirable element of the city, they will be reluctant to engage in projects that give legitimacy and permanence to the slums. If the slum dwellers can show themselves to be the most powerful resource that a city has for the improvement of urban life, then one of the major barriers to progress will have been cleared.

#### Slum feudalism

It is not easy for the poor to demonstrate their capacity as partners in development. This is because the psychological and institutional structures of power have always cast them in the role of supplicants. The poor are not seen as agents of change: they are passive recipients of favours bestowed or withheld by the people in power. Despite the fact that they have been elected by the poor, city politicians adopt the role of protector and patron to the slum dweller – the one who can stay an eviction, the one who can be bribed into helping a family or solving a particular problem. In this scheme of things, it is essential that the slum dweller remains passive and vulnerable.

**'The poor are not seen as agents of change: they are passive recipients of favours bestowed by the people in power'**

Community participation in development fundamentally undermines this client-patron relationship. Programmes led by slum dwellers require meetings, organisation, development of capacity and confidence – all of which work directly against the helplessness that the authorities are keen to maintain. Unlike projects run by government contractors,

community based initiatives tend to be low-cost and transparent – leaving no space for the culture of bribes and kickbacks that has been so profitable for the politicians.

The work of the *SPARC/Mahila Milan/NSDF* alliance is about finding ways to break down the relationships that cripple urban development. Sanitation is one of the best platforms from which to embark on that campaign.

#### A beautiful place to live

In cities across India, communities working with this alliance have delivered sanitation facilities that are properly thought through, well built and efficiently run. Unlike government latrines, community toilets are clean, bright and well ventilated; they have a good supply of water for flushing, hand-washing and maintenance; they have separate areas for men and women, and special latrines for children. Each block is operated by a management committee, and its running costs are paid by the purchase of a family toilet pass that costs twenty rupees per month.

Since everybody in the slum will use the toilet, the process of design and construction encourages them all to put their talents and experience into action. It provides an opportunity for people to work together, for women to become involved, for their skills and their leadership to be used and publicly recognised, and for new skills – technical, financial, managerial – to be developed and tested.

The building of a toilet is also an opportunity to show the city authorities that, given the chance and the support, the inhabitants of slums are able and willing to solve many of their own problems. Community-led sanitation therefore illustrates the possibility of a profound change in the relationship between

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politicians and the poor: a relationship in which no favours are asked, no hands held up in supplication.

For the poor as well as the politicians, this can come as a revelation. Until now their activism has been limited to making demands of their leaders, without working out an agenda of their own. They would complain that sanitation had not been provided, but would not act to build a toilet themselves. This initiative is making them think about what can be achieved through their own endeavour. For a woman who has squatted over an open drain all her life, it is hard to overestimate the value of a clean and private place to defecate. But perhaps an even greater benefit of these projects is the first glimmer of a hitherto unimagined possibility: the slum may yet become a beautiful community in which to live.

**'If participation is called-off the moment a mistake is spotted, communities are unable to learn'**

#### Offended sensibilities

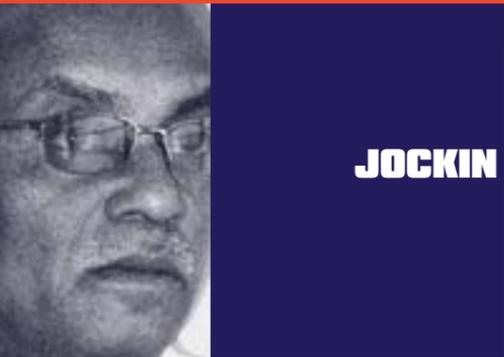
If communities and the groups supporting them are well informed and well organised, it should not be too difficult to get permission for this kind of programme. But it is vital that politicians are approached in the right way. *SPARC* always tries to meet them with solutions, not with problems. And a solution to the sanitation crisis can be an attractive proposition for a Municipal Commissioner. It is not as threatening as a request for land tenure, for example; and even the urban elites can see the need to tackle the problem of sanitation – not least because open defecation threatens their own health and offends their sensibilities every day.

Even when city authorities have agreed to pilot a community-led project, the initiative can be dragged under by their instinctive mistrust of the poor. Built into many community-led programmes is a 'one chance only' clause allowing the government or the donors to pull the plug at the first sign of error. This attitude can undermine the very essence of community led development: the process of learning.

Learning new skills and building capacity cannot happen without mistakes being made. It is vital that the authorities grant poor communities a margin of error that will allow them to reinvest the 'learning capital' generated by mistakes back into the process. If participation is called-off the moment a mistake is spotted, communities are unable to experiment and unable to learn. This is one of the tragedies of poverty, and this is why projects supported by *SPARC* allow for and even encourage mistakes to be made.

None of these toilets is perfect; but each one represents a vital investment in human capacity, and in that sense they are the building blocks of a fundamental change to the way in which the poor perceive themselves and are perceived by others.

For too long the urban poor, living on land to which they have no acknowledged right, have been forced – by the threat of eviction, by the exploitation of their status as migrant outsiders, and by the disdain in which they are held by the urban elites – into a position of passivity and dependence. There is now a new generation coming through, a generation born in the city and who relate to it in a very different way from their parents. They are starting to demand the right to set the agenda on their own future. It is time for the city itself to recognise that right, and to wake up to the fact that the urban poor must be the leaders in the fight for urban development. ■



**JOCKIN ARPUTHAM** IS PRESIDENT OF THE *NATIONAL SLUM DWELLERS' FEDERATION* – THE LARGEST PEOPLE'S MOVEMENT IN INDIA. RAISED IN THE SLUMS AND ON THE STREETS OF MUMBAI, HE BECAME A LEADER THROUGH POPULAR RECOGNITION OF HIS SKILL IN GETTING PEOPLE TO WORK TOGETHER ON THEIR OWN PROBLEMS. HERE, HE TALKS ABOUT HOW CITY GOVERNMENTS MIGHT UNLOCK THE WASTED POTENTIAL OF THE URBAN POOR.

THE *NATIONAL Slum Dwellers Federation* (NSDF) is a people's movement that represents over 250,000 poor families – more than a million people – in the city of Mumbai alone.

It can count on the active support of all those people because they know that we don't come into their neighbourhoods making promises about money that never arrives or services that they never see. We come to help them get together, identify a problem, and tackle it today – using their own knowledge, their own talents and their own money.

The Federation provides a practical demonstration of a truth that will one day be recognised: the people are the greatest resource for their own development. The urban elites have never made any attempt to harness that resource. They have never tried to help the poor get organised, get trained, and get active in addressing their own difficulties. Instead, they have patronised them, ignored their potential, and laughed at the idea that they might be able to help themselves. It is not just about policy – the whole attitude of the governing classes demoralises the poor by telling them that they're incapable and impotent. 'Sanitation? Leave it all to us,' they say. 'We're the experts on this.' And then nothing ever happens.

**'The urban elites have patronised the poor, ignored their potential, and laughed at the idea that they might be able to help themselves'**

The NSDF exists to prove to these people that the poor, far from being a helpless liability, are the most important reserve of skill and energy that a city has for solving its problems.

Gradually, the Government of Mumbai is being forced to sit up and take notice. The sheer number of people affiliated to this movement and its undeniable track record of success in urban development is making it hard to ignore the NSDF.

**'The NSDF exists to prove that the poor, far from being a helpless liability, are the most important reserve of skill and energy that a city has for solving its problems'**

#### The power of money

It is my experience that savings schemes are the best way to spark a movement of self-help in a poor community. It's worth trying to avoid working through the men at this stage: if you suggest the idea of a savings scheme, they'll still be arguing about whose going to be treasurer three weeks later – even though there is not yet any money to be treasured! If you can pitch the idea to a group that is predominantly made up of women, the money will start to come in there and then – and I mean straight away, at the initial meeting itself. Immediately, without waiting for any external help whatsoever, those women are able to begin improving their lives. If a hundred women each contribute one rupee, one of them can take a loan of 100 rupees on that first day. With that money she can go to the market to buy 100 RS worth of vegetables. Before lunchtime, she's got a small business.

The impact of this kind of self-reliant, positive action is tremendous. When these women learn how to manage money, their capacity for managing their families, their neighbourhoods and their communities is immeasurably strengthened. As the balance of savings

grows, the individual contributions rise and the pot grows. Suddenly, things start to look possible. People are talking about a water point, a community centre, a toilet block. When you've got a savings scheme up and running, you're starting to build the kind of community spirit, managerial skills and self-confidence that is required to tackle any slum development project. With this in place, people have got some basis on which to start thinking about the question of sanitation.

And sanitation is a very good place to start. If a community savings group approaches the Federation with a request for sanitation, we are able to help them through the process of planning and designing a toilet block, hiring contractors and builders, and developing a system that will pay for the running and maintenance of the facilities. By drawing on a reserve of people's expertise built up in neighbouring slums and squatter settlements, the community is able to put forward a proposal that is well thought-out and properly costed.

**'Suddenly, things start to look possible. People are talking about a water point, a community centre, a toilet block'**

If the city authority is still reluctant to let the poor tackle their own sanitation problem, the Federation can arrange for them to visit other community-led projects in the city. There they can see at first hand the technical competence shown by poor communities, as well as the financial and managerial systems that the people have put in place to ensure the sustainability of the project. No-one is asking the City Corporation to pay for maintaining the

facility. We're just asking them to meet the capital cost of a building that will then be constructed and run by the community. Properly presented, it is a hard proposal to turn down.

**'What can never be measured is the amount of pride, optimism and self-confidence that the process has brought to the people who built the toilets'**

The NSDF is now completing the construction of 280 community toilets that were funded with money that the Mumbai City Corporation received from the World Bank. With an average of 20 seats per block, this programme is providing safe sanitation and clean water to perhaps half a million people every day (For more detail on how this programme works, see the contribution of Sheela Patel on page 18).

What can never be measured is the amount of pride, optimism and self-confidence that the process has brought to the people who built the toilets. A woman like Rehmat (See the contribution of Rehmat on page 24) for example, who has now acted as the contractor for five of these blocks, is not motivated by the money alone. She's working on a project for her own people, a project she believes in. She's glad that her skills have been recognised, proud that people in slums across the city are asking if Rehmat can oversee the building of their toilet. A woman with a spirit like that is worth a thousand professionally qualified contractors from the city authority.

Even for those who have not been so directly involved in the project, the toilets are much more than just a place to go to the loo. They represent a huge psychological step towards

**'How many more times do the people have to prove their ability before they are trusted with responsibility for their own lives?'**

an attitude of self-reliance. If you can't get something as basic as a toilet organised, how can you start to talk about land tenure or housing?

Toilets also become the talking hot-spots of the neighbourhood, which is why I call them Community Communication Centres. The woman waiting outside the cubicle will always chat to the woman using it: 'Did you hear what happened yesterday?', 'Did you go to the community meeting?', 'Did you find out what happened to that leader from across the alley?', 'Did you know that Sadaam Hussein got arrested?' It's at the toilet block that people come together, discuss their news, find out who's a gambler, who's a thief, who's having an affair. It all helps to strengthen the sense of community spirit which is, in the end, the only basis on which we can all move forward.

**'It's at the toilet block that people discuss their news, find out who's a gambler, who's a thief, who's having an affair. It all helps to strengthen the community spirit which is, in the end, the only basis on which we can move forward'**

#### A question of respect

All over the world, governments need to recognise that they are stifling the only reserve of skill and energy that has the capacity to meet the huge challenges facing cities. No progress is possible until the urban authorities stop trying to hand down centrally planned solutions and start to throw appeals for help back at poor communities. You don't have any

electricity? Why aren't you working on that? You don't have any houses? Why aren't you building them? Instead of offering the support and the finance that people need to make progress, the urban elites are still clinging to the notion that they are the greatest experts in solving problems faced by the poor. It is an attitude which has led to literally thousands of failed projects.

How many more times do the people have to prove their potential before they are trusted with responsibility for their own lives? Through the NSDF, the slum dwellers in Mumbai are winning this battle – but why should we be struggling uphill through a tangle of bureaucracy and suspicion? When will the politicians learn that they are not the best people to wash the poor man's bum? It is about time that the people in power showed some respect for the millions of urban poor who clean their houses, who mend their streets, who repair their sewerage networks, and who built the city itself. ■



**RATNAKAR GAIKWAD** IS THE FORMER MUNICIPAL COMMISSIONER FOR THE INDIAN CITY OF PUNE. IN 1999 MORE THAN HALF A MILLION PEOPLE IN PUNE HAD NO SAFE SANITATION. EIGHTEEN MONTHS LATER THE PROBLEM HAD LARGELY BEEN SOLVED. THE IMPETUS FOR THIS EXTRAORDINARY EFFORT CAME FROM THE MUNICIPAL COMMISSION ITSELF. HERE, RATNAKAR GAIKWAD TELL THE STORY OF A PROGRAMME THAT BROUGHT SANITATION TO AN ENTIRE CITY.

BETWEEN 1990 and 1998 the city of Pune was building four or five toilet blocks and providing about 50 toilet seats per year.

During my time as Commissioner, we built more than four hundred blocks and provided something over ten thousand toilet seats. At previous rates of progress, that would have taken two hundred years. We did it in 18 months.

There are 600,000 people living in the slums of Pune. At the start of my tenure, around 90% of them did not have access to safe sanitation. In theory about 10,000 seats were available; but in practice almost 8,000 were beyond use – because they'd been badly planned and badly built, because the municipal cleaners weren't doing their job, because the people in the slums had no sense of ownership or responsibility for the amenities. In other parts of the city there were simply no facilities at all. I went into slums which I'd first seen as a student in the early 1970s, and in some not a single toilet had been built in those thirty years.

There was no doubt in my mind that sanitation had to be this city's first priority. In Mumbai I had visited projects where slum dwellers, backed by NGOs, were building community toilets for themselves (see the contributions of Sheela Patel, Jockin Arputham, and Rehmabti Qamar Ahmed on pages 18, 20, 24). As Commissioner, I saw an opportunity to put that approach into action on a huge scale.

The problem was lack of time: working with communities to build demand, explore alternatives and train individuals is a process that can't be rushed. But the tenure of a City Commissioner is often brief and always insecure. I knew that if this was to be done at all, it would have to be done fast.

The first task was to find the funds. Through the 1990s Pune was allocating about two crores of rupees to sanitation every year. Immediately, I budgeted 20 crores of rupees, and made it clear that I didn't want this to be challenged.

**'I went into slums which I'd first seen as a student in the early 1970s, and in some not a single toilet had been built in those thirty years'**

With that money we got the project underway and built the first 220 toilet blocks. By then I had decided to go ahead and spend the extra 23 crores of rupees that we needed to finish the job. Since this money was not allocated in the budget, I made a pretence of applying for a bank loan. In truth, I knew that this money would never need to be borrowed, because the city invariably finishes the financial year with budgeted money unspent. I was sure that when the job was done there would be no further quibbling about the finance.

Even my chief accountant was surprised by my ingenuity!

A harder task was to find NGOs that were capable of working on such a scale. The NGO most familiar with the approach was *SPARC*; but *SPARC* alone did not have the capacity to build 400 blocks. I advertised for others to come forward, made every effort to check their honesty and competence, and then used the experienced NGOs to train and strengthen the weaker ones.

#### The Wednesday meeting

The Municipal engineers did not make any recommendations about how to build the toilets – that was the job of slum dwellers and

NGOs. We told them that their designs would be approved – but we also made sure that city engineers were in the slums, checking that the toilets being built corresponded exactly to the toilets set out in the plans. There was to be no changing the agreed ratio of sand to cement.

In order to keep the programme on track I took personal responsibility for supervising the key players. Every Wednesday they were asked to come to my office: NGO leaders, engineers, accountants and women from the slums sat at the table for a serious, business-like review of progress. I looked at how far we'd gone, and told people where I wanted them to be by next week. Procedures were simplified, decisions were taken, obstacles were cleared. The drawn-out process of awarding contracts, for example, was radically altered, allowing some 200 work orders to be issued in the space of three or four days. The procedure for releasing money to NGOs was also adjusted to ensure prompt payment at every stage of construction. There was to be absolute transparency – no shady deals, no intimidation.

**'Procedures were simplified, decisions were taken, obstacles were cleared. There was to be absolute transparency – no shady deals, no intimidation'**

The Wednesday meetings were crucial to the success of this initiative, because they cut out the hierarchies, the parasites and the red-tape which can so easily ruin a good programme. Inefficiency, graft and exclusion take root in the ground allowed to them by long chains of command and long delays in procedure. If fees are not promptly paid, for example, you're

leaving the way open for corruption to arise. If a slum woman has no access to the man at the top and no way of making her voice heard, then she is clearly vulnerable to exploitation or neglect. Direct supervision is an effective way to by-pass the mass of potential pitfalls that threaten to delay or de-rail initiatives like this.

This pro-active use of authority is needed to protect a project from the local politicians and bureaucrats who are more concerned with their own power and profit than in making the project deliver. Officials don't like this way of working because there is no money to be made from it. But it's more than just the money: city politicians will almost always try to develop their status as the ultimate ruler of a slum, and that means cultivating a mentality of dependence in the slum residents.

**'Local politicians would prefer to build a shoddy toilet that will need demolishing after three or four years'**

In Hindi we have a word for this – we call it a 'May-Bap' relationship, meaning 'parent-child' or 'giver-taker.' Initiatives that encourage self-reliance strike at the root of that relationship. That is why local politicians would prefer to build a shoddy toilet that will need demolishing after three or four years. If they can guarantee that a toilet is badly built, they can guarantee that their intervention will be petitioned again in the near future.

#### Toilets before gardens

Some of these local Counsellors can be won-over if they are allowed to cash-in on the political credibility that comes from a successful community-led programme. One of the Pune Councillors told me that he had been fighting to get a toilet built in his area for years.

**'During my time as Commissioner, we provided something over ten thousand toilet seats. At previous rates of progress, that would have taken two hundred years. We did it in 18 months'**

Suddenly, he had ten. 'The next two elections are in the bag for me' he said. 'All I have to do is stand outside the toilet with my hands folded and a smile on my face.'

There are many good and honest Commissioners involved in city politics. We need to alert these people to the scale of the sanitation crisis, and make them aware of how much can be achieved when new approaches are backed by strong political will. In February 2004, I made a presentation to Mayors and Commissioners from twenty-seven Indian cities – telling them why this can't wait, telling them how it can be done, forcing home the message that sanitation must take priority over roads or streetlights or gardens.

Despite the presence of these dedicated individuals, experience has shown that the urban poor cannot rely on the benevolence of their representatives. Given that fact, the only way to guarantee the provision of basic services is through the empowerment of the people.

Organisations like *Mahila Milan* ('Women Together') and the *National Slum Dwellers Federation* are the beginning of a movement that will enable people to help themselves and, at the same time, enable them to call their leaders to account. Already, these movements are making it difficult for cynical and corrupt officials to undermine people-led initiatives. There are many who fear grassroots movements, who see them as a threat. But the best bureaucrats and politicians will do everything in their power to encourage the self-reliance and political empowerment of the urban poor.

If I could have done one thing differently, I would have given more time to the important work of getting people to participate in the scheme. The NGOs were continually stressing

that this approach depends on a process that might take months or even years. They are absolutely right.

**'There are many who fear grassroots movements, who see them as a threat. But the best politicians will do everything in their power to encourage the self-reliance and political empowerment of the urban poor'**

But there is also some merit in bringing a sense of urgency to the task. Sure, hold meetings with slum dwellers, raise awareness, run hygiene workshops. But you can't keep banging on to people for three, four years about toilets, toilets, toilets, when nothing is happening on the ground! Some years ago there was a World Bank project in Mumbai that got completely obsessed with process. The tender document ran to over 100 pages, and was so dense and convoluted that no-one even tried to get the contract! At a certain point, you've got to get on with the job. ■

**'The contractors from the Municipal Corporation think that 'sanitation' is a dirty word. They would much prefer to stay in their offices and occupy themselves with higher things'**



**REHMATBI**

**QAMAR AHMED**

WORKS WITH THE SPARC/MAHILA MILAN/NSDF ALLIANCE AS A CONTRACTOR FOR THE CONSTRUCTION OF COMMUNITY TOILETS IN MUMBAI. SHE CAME TO THE CITY THIRTY FIVE YEARS AGO FROM ONE OF THE DRY VILLAGES OF MAHARASHTRA AND NOW LIVES IN THE PAVEMENT SETTLEMENT OF APNA ZOPADPATTI. HERE, SHE TALKS ABOUT HOW HER INVOLVEMENT IN SANITATION SCHEMES CAN OVERCOME THE ENTRENCHED CYNICISM OF THE SLUM RESIDENTS.

IF AN OUTSIDER goes into a slum with a sanitation project, they can't expect the residents to greet them with open arms. This is because we've seen too many initiatives which were supposed to help us, but which were really being run for the benefit of politicians.

It's not that people don't want taps or toilets. At the moment women have to wait until dark to go to the loo, or they have to squat along open drains and railway tracks, or they have to walk kilometres to use some filthy toilet run by the municipality. Of course we want decent toilets. But people's own experience tells them that the project is going to be done by meddling officials and private contractors who are more worried about making a profit than about building a good toilet. People suspect that it will be put in the wrong place, shoddily built, never cleaned and too expensive to use.

**'Slowly, people stop putting up with filthy latrines, or with no latrines at all, and start getting behind a campaign for a new community toilet block'**

*Mahila Milan* ("Women Together") doesn't go into slums telling people that they have to build a toilet. Instead, we go into a new area – always during the daytime when some of the women are at home – and start walking around the slum. Someone will always ask what we're doing. 'Just having a look around.' Before long we'll be joined by some of the residents, and start talking about sanitation and water in their neighbourhood. Together, we'll count the number of houses, work out the number of people, get them to start saying what they already know: one tap and one toilet is not enough for three hundred families.

That visit gets the community talking. Different people start putting forward ideas. People argue amongst themselves. Before long, there are community meetings and workshops, usually led by women who are already part of a savings scheme. *Mahila Milan* or the *National Slum Dwellers Federation* can help with these workshops and with training.

A new community group can go and visit a toilet built by people from a different slum in another part of the city.

**'I've been the contractor for five sites in Mumbai. There is no shirking and no cutting corners when I'm on site'**

Slowly, people stop putting up with their filthy municipal latrines, or with no latrines at all, and start getting behind a campaign for a new community toilet block. At first, the NSDF can help them to negotiate with the City Corporation. Later, people can set up their own committees and start speaking for themselves.

When the community has worked out the design of their toilet block, decided where they're going to put it, and got the Corporation to agree to pay for it, they're going to need some technical help with the job of actually building a toilet. That's where I come in.

I've been the contractor for five sites in Mumbai, and I've now got my own contacts with people who supply materials and labour at fair rates. I take responsibility for making sure these people are paid, and I watch over them to make sure that they're working properly. There is no shirking and no cutting corners when I'm on site.

And that's the point: I am on site. All day, every day. The contractors from the Municipal Corporation, who think that 'sanitation' is a dirty word, would much prefer to stay in their offices and occupy themselves with higher things. They're reluctant to even put in an occasional appearance on the building site, let alone get their hands dirty. When it comes to toilets, you can guarantee that the work of corporation contractors will be slow and uninterested.

I do this because I earn good money – something which I never imagined was possible. I do it because I enjoy the work and take an interest in making it successful. I do it because I've got skills and contacts. And I do it because when a new project is planned, women in slums that I've never even been to are starting to ask: 'Would Rehmat be available?' ■



**SURJYA**

**KANTA MISHRA**

IS MINISTER FOR HEALTH AND FAMILY DEVELOPMENT AND MINISTER FOR RURAL DEVELOPMENT IN THE GOVERNMENT OF WEST BENGAL, INDIA. A MEDICAL DOCTOR BY TRAINING, HE HAS BEEN WORKING ON WEST BENGAL'S TOTAL SANITATION CAMPAIGN SINCE THE STRATEGY WAS FIRST PILOTED IN MEDINIPUR. HERE, HE ARGUES THAT PEOPLE'S PARTICIPATION DEPENDS UPON THEIR DEGREE OF POLITICAL EMPOWERMENT

I WAS STILL working as a surgeon when I first grasped the importance of sanitation. Under the microscope I could see hookworm, giardiasis, schistosomiasis – infestations that I knew came from the practise of open defecation, and which I knew were contributing to chronic malnutrition in the rural poor.

At that time the government was still learning the hard way, promoting a top-down sanitation package that struggled to reach a thousand families every year with latrines that were rarely used. Now, we've got a programme that will bring sanitation and hygiene awareness to more than a million families this year alone. There is no room for complacency here. But already there are valuable lessons to be drawn from the experience of West Bengal.

Firstly, it is clear that sanitation is not possible without the participation of the people who are supposed to be using the latrines. Participation does not mean asking people to join in a scheme designed elsewhere – it means helping people to come up with their own solutions, allowing outside suggestions to be critically examined and adapted by the villagers, and supporting the decisions made by the community.

This kind of participation is not achieved through subsidy; it depends upon communities being motivated by an intensive campaign of hygiene education and social marketing. If that campaign is focused only on the building of latrines, there will always be people who are not reached, people who continue to defecate in the open and who continue to pollute the water sources and spread disease.

High levels of latrine coverage, therefore, are simply not good enough. At the very least this movement should be marching under the

banner 'No Open Defecation.' Ultimately, we're aiming to create an even more profound change: Sanitation as a Way of Life. That phrase implies a psychological adjustment that will lead not just to the use of latrines but also to the washing of hands, the cutting of nails, the safe preparation of food, the refusal to spit in public places and the vigilant protection of local water bodies from all sources of contamination. This attitude of mind – not building toilets – will lead to the really dramatic improvement of public health.

It is abundantly clear that government cannot hand down a directive of behavioural change to the villagers. The solution, once again, depends upon the participation of people. That is being generated by a range of strategies that appeal to the need for privacy, to the economic benefits of hygiene, to the social stigma of open defecation. But participation also depends upon our ability to generate political empowerment. Unless the people feel that they are running their own lives, the idea of 'participation' will remain alien and difficult.

**'Before the land reform, a village meeting consisted of a landlord dictating his decisions to the poor'**

That is a big part of the reason for West Bengal's success in sanitation: the people are the most politically active population in India. Since this government came to power it has been able to redistribute the agricultural land back to the people who work it. Those people are free to elect local representatives who come from the same class as themselves – people who genuinely represent the poor, the women, the marginalized and the dispossessed. De-centralized local democracy

is working, as it should, to encourage the sense that people are in control of their own community.

By releasing people from the system of feudal bondage, we have given them the mental leverage they need to start taking decisions about their own futures. Before the land reform, a village meeting consisted of a landlord dictating his decisions to the poor. There was never a dissenting voice to be heard. How can you talk about 'participation' where that is still happening?

I would argue that the political empowerment of the people, achieved through the decentralization of democracy, is a prerequisite for any development programme to succeed at scale. In global terms, we're facing a situation where the opposite is happening. The process of privatisation is concentrating money and influence into the hands of the few, and thereby contributing to the disempowerment of the many. At the same time, the Bretton Woods institutions are promoting the centralization of capital and therefore of decision making. If developing nations are not free to decide their own paths towards the *Millennium Development Goals*, what chance have small communities got? If those communities are not familiar with the idea that they might take decisions for themselves, how can we expect them to run with the idea of 'participation' that they are suddenly being offered?

It is now an established truth that sanitation demands the active leadership of people. If we're succeeding in West Bengal, we're succeeding because the leadership of the people has been promoted here for a very long time. ■

**'The essential point is that motivation must appeal to the practical, everyday experience of villagers'**



**CHANDNI DEY** IS A COMMUNICATION EXPERT WITH THE *RAMAKRISHNA MISSION*, KOLKATA, INDIA. HE HAS BEEN WORKING ON THE PIONEERING *MEDINIPUR SANITATION PROJECT* SINCE ITS INCEPTION IN 1990, AND HAS BEEN CLOSELY INVOLVED IN THE GOVERNMENT-SUPPORTED DRIVE TO REPLICATE THIS MODEL THROUGHOUT THE STATE OF WEST BENGAL. OVER TWENTY YEARS, HE HAS WORKED ON SANITATION PROJECTS IN MORE THAN SIX THOUSAND BENGALI VILLAGES.

RETHINKING the basic premise of the top-down and supply driven approaches that had failed in the past, the Medinipur pilot project stopped trying to build latrines and directed itself towards a subtler, more ambitious target: changing the mindset, the behavioural patterns, and the cultural norms which made open defecation a universally accepted practice.

That cannot be achieved by explaining to villagers that diarrhoea kills half a million Indian children every year. Statistics like that make no impact on the minds of the people. The real challenge is to make clear the links between common illness and the practise of open defecation.

There are all sorts of ways to get the message across. You might show villagers a glass of clean water, for example, touch the surface of the water with a pin that has been dipped in human excreta, and then ask if anyone is prepared to drink the water. There are no takers. Though they can see nothing, the people feel that the water has been contaminated. If you then ask them what they would do if they arrived at the village pond to find a neighbour cleaning themselves after defecation, they will admit that they would wait – and then use the same water to wash their bodies and rinse their mouths. The trick with the pin is enough to shatter the misconception that faecal contamination is eliminated by dilution. Suddenly, the villagers understand that they are ingesting each other's faeces.

Similarly, the medical-sounding idea of 'intestinal worm infestation' will not alarm anyone. But if the motivator has big pictures of worms to show the villagers, they will relate the pictures to the worms they have seen emerging from their own children. This creates an absolute panic. Big diagrams of flies,

showing the size and texture of their six ugly feet, will also help to get across the idea that they really do carry faeces onto food.

The essential point is that motivation must appeal to the practical, everyday experience of villagers. An outsider talking about 'Faecal contamination,' without relating that to local habits, will not succeed in changing behaviour or building demand. A good motivator would ask a family what would happen if the father returned home and demanded his meal while the mother was cleaning a baby's bottom? Would he let her finish and clean up before she began preparing food? Would she have clean water and soap or ash to wash her hands? Do they think that the faeces of children are harmless?

**'The villagers will relate the pictures to the worms they have seen emerging from their own children. This creates an absolute panic'**

These are just a few of the many techniques and materials that can be used to undermine long-held misconceptions or to illustrate the chains of contamination that cause disease. The real core of the communication drive, however, is based on house-to-house visits. Trained motivators call on every home in a village – not to sell latrines or talk about subsidies, but to establish a rapport with the family, to chat with them about their difficulties, and to steer the talk towards the question of sanitation. If the children of that family have recently been sick, the motivator might discuss the costs with their father – asking him about the price of transport and medicine, and making him think about the working time lost in taking that child to the doctor. They might

ask a parent if they think it is safe for their daughter, now that she is sixteen, to go to the woods at the edge of the village at night. They might appeal to a mother's need for privacy, a grandmother's need for comfort, a father's concern with making ends meet.

The task of creating demand for safe sanitation must be an intensive and co-ordinated effort that involves all the key opinion leaders working to promote the same message at the same time. The co-ordinating institution must identify the key groups in every village: mothers and women's groups, school teachers, health workers, youth clubs, religious leaders. These people must be invited for the training that will enable them to lend their influence to the work of the family motivators. At every stage, we should be trying to get local people to persuade and cajole and motivate their peers. And by the time demand is created, affordable sanitation solutions should be on hand (see the contribution of Chandan Sengupta on page 27).

If this approach is to work at scale, then government – especially at the 'Panchayat' or local level – must be on board. But the NGOs that develop a project should not be handing it over: they must remain involved in defining the strategy, in implementing the plan, in inspiring government personnel, training them to replicate the approach and helping them to develop the infrastructure. They must show governments the way. And governments must show themselves willing to listen, to learn, and to use their resources in support of ground-up initiatives like this. ■

**'This program has already attracted visiting teams from around the world, and influenced national policy guidelines for India'**



**CHANDAN SENGUPTA** IS A CIVIL ENGINEER SPECIALISING IN WATER AND SANITATION. HE WORKED FOR LOCAL GOVERNMENT IN TRIPURA, INDIA, BEFORE JOINING UNICEF IN 1989, AND HAS BEEN CLOSELY INVOLVED IN WEST BENGAL'S PIONEERING RURAL SANITATION PROGRAMME SINCE ITS INCEPTION. LAST YEAR ALONE, THE PROGRAM PROVIDED NEARLY A MILLION LATRINES.

latrines that villagers know are the filthy, smelly, badly maintained ones they've seen in railway stations or public institutions. And they don't want those anywhere near their homes!

If you can overcome these misconceptions, then you have gone a long way towards solving the problem. The last stage is to meet that demand with a product that is affordable, that meets basic sanitary requirements, and that can be delivered to the villagers the moment demand arises.

In 1993, when the Government of West Bengal accepted the challenge of replicating the Medinipur model across the State, the key tasks of marketing sanitation and meeting demand were delegated to a new and radically different institution: the Rural Sanitary Mart.

**'The only other latrines are filthy, smelly, badly maintained ones ... and they don't want those anywhere near their homes'**

A Rural Sanitary Mart is a place which manufactures and sells all the relevant components for the building of low-cost latrines. It offers a range of options designed to fall within the economic reach of all villagers. All are water-sealed and therefore sanitary. As well as providing the squatting plates, pans, and traps, Sanitary Marts offer all kinds of items – soap, bleach, brushes – which relate to the improvement of hygiene and behavioural practices.

Sanitary Marts also provide a focal point in the campaign to promote the construction of latrines. They are staffed by local people, trained at district or State level to generate awareness, to stimulate demand, to offer after-sales help to the users, and to train others in

the manufacture and installation of the product. They are self-sufficient entities, at once NGOs and private businesses, which make a small profit and use that money to pay an incentive to every village motivator who brings them a new latrine customer.

**'Sanitary Marts provide a focal point in the campaign to promote the construction of latrines'**

There are now more than three hundred Sanitary Marts throughout West Bengal, co-ordinated in their activities by Sanitation Cells at district and State level. They are meeting the demand for sanitation in a far more efficient way than even local government ever could. And, as a beneficial spin-off from the sanitation programme, they are providing valuable employment to thousands of young local people, especially women.

The Rural Sanitation Programme in West Bengal represents a remarkable collaboration between State government, UNICEF, local NGOs and village communities. Access to sanitary latrines is now 43%. In three or four more years every family in the State will have access to safe sanitation. This program has already attracted visiting teams from around the world, and influenced national policy guidelines for India.

Whatever the local circumstances, it should always be remembered that delivery cannot happen without demand. Pepsi and Coca Cola have, through successful marketing, created a demand so strong that networks of supply are operating in the remotest regions of Medinipur, and even the rural poor are paying for the stuff. Governments should take the lesson from that: Demand first. Supply follows. ■



**NAFISA BAROT** IS ONE OF THE FOUNDER MEMBERS OF *UTTHAN*, AN NGO THAT HELPS PEOPLE FIND SELF-RELIANT STRATEGIES FOR SURVIVING THE MOST INHOSPITABLE TERRAIN IN INDIA. THE PIONEERING ACHIEVEMENTS OF *UTTHAN*, PARTICULARLY IN ENABLING LOCAL WOMEN TO HARVEST RAINWATER, HAVE BEEN RECOGNISED BY GOVERNMENTS AND NGOS ACROSS THE SUB-CONTINENT. HERE, SHE SPEAKS ABOUT THE DANGERS OF RELINQUISHING RESPONSIBILITY FOR YOUR OWN BASIC NEEDS.

I REMEMBER when the word went round the village: water has come. And sure enough, water was trickling into the tank from a metal pipe that had carried it across a hundred kilometres of saline desert. At the bottom of the tank there was a frantic scramble to scoop the water into pots and buckets. Blood was dripping into the water from head wounds caused by the fighting and from the skirts of the women that were menstruating. The cattle wouldn't drink the water because it smelt of blood. But the people drank it. It was the only water they had.

That pipeline was a government scheme to help alleviate the threat of drought as the water-table fell throughout Gujarat. Without making any attempt to grasp the underlying reasons for the drought or to formulate any kind of vision for a sustainable human future on that land, the state had decided that central planning and technical expertise could solve the problem.

**'The cattle wouldn't drink the water because it smelt of blood. But the people drank it. It was the only water they had'**

All the way along, the pipeline was tapped and the water was stolen by the same commercial farmers whose thousand-foot bore wells were turning Bhal into a desert. Anyone who could afford it joined the rush to cultivate the cash crops that consumed so much water. Villagers watched their wells and their ponds dry up and turn saline. 'No matter,' they were told. 'Clean water will flow down the pipe.' As the ponds vanished, the old and tested systems for distributing water within the village went too.

The grasslands disappeared, the cattle starved and the milk co-operatives closed. The richest and most powerful villagers cornered what little water was left, leaving the women to walk five and six kilometres every day to collect water – even when there were wells in their own village. Children went down with dysentery, and when they were not sick they spent so much time collecting water that they couldn't go to school. Their mothers suffered frequent miscarriages. In the worst hit areas, limbs got so weak that people found it painful to walk at the age of forty. I personally sat with a woman who knew her child was dying from dehydration. There was no water to give her, and nothing to do but wait and hope for water to be sent down a pipe or brought in a government tanker. The girl died.

This is what happens when traditional systems of self-reliance are eroded by unchecked economic forces and people are left dependent upon a remote and uncontrollable system that may or may not deliver their most basic needs. When this occurs in an area of extreme water scarcity, ancestral strategies of water harvesting and management are lost, a 'survival of the fittest' mentality compounds the old inequalities of village life, and communities disintegrate under the pressure of conflict and migration.

#### Fire fighting

While the government pursues a fire-fighting approach to one crisis after another, *Utthan* is trying to develop long-term strategies that might be used to reverse the ecological and human destruction of rural Gujarat.

We are not offering ready-made solutions, and we don't go into villages promoting a project. Instead we try to get the community – the whole community, including the poor and the

women, the weak and the marginalised – to come together to talk about their situation. Through sensitive questioning, it is possible to turn a village meeting into a collective process of analysis. This is the first step towards the kind of social reintegration that is necessary for progress.

**'Over two or three years, it is possible to build a committee in which the invisible and the quiet also play a part'**

Over time we are able to get a grip on who's who in the hierarchy, locate the lines of prejudice that divide the community, and find out who falls on the losing side of the line. We're trying to bring forward those individuals who have a long term view of their village and who are capable of understanding the needs of everyone. These are the people that we will encourage to voice their opinions and become active in the formation of a Village Water Committee. At first, the people appointed to the Committee are likely to be those who were already influential members of the village. But over two or three years, it is possible to build a committee in which the invisible and the quiet also play a part.

It is absolutely vital that women make up at least half the Committee. Firstly, because they are the ones most committed to their own future in the village. Where the men are willing to migrate, women have a very strong sense of belonging to their native place. Even when they know they could earn more money and perhaps live an easier life elsewhere, they want to stay fixed in their own village and work to improve it for their children. For that reason, water is their first priority.

By long tradition Gujarati women are accustomed to leave communal affairs in the hands of men. It takes time for them to develop the confidence necessary to take a lead in something like a Water Committee. Often the best starting point is a savings and credit scheme – not because of the money, but because it gives women a platform on which they can come together, talk about their problems, develop a shared agenda and a collective identity. From this basis they can begin to speak out, to discover new skills and to convince the men that they have talents and priorities that shouldn't be ignored. The empowerment of women is a process that runs against the grain of cultural and religious tradition, and it takes time and patience.

A Committee should be leading a collective effort to find local answers to a problem. Once a community has stopped waiting for the solution to be delivered and started thinking about what they can do for themselves, all kinds of knowledge and ideas emerge from the people. They know exactly which depression in the land will be saline, and which might be a good place to try a pond. They come up with new adaptations of old methods – such as lining the rain-collection pond with plastic to stop it absorbing the salinity of the soil.

**'Where the men are willing to migrate, the women have a strong sense of belonging to their native place'**

With support from organisations, including *Utthan*, and from villages that are further along in the process, local people have installed thousands of rooftop water harvesting tanks that enable them to face the dry season

**'This is what happens when traditional systems of self-reliance are eroded by unchecked economic forces and people are left dependent upon a remote and uncontrollable system that may or may not deliver their most basic needs'**

without fear; they have built hundreds of low-cost check dams that raise the water table and get their wells functioning again; they have dug or deepened thousands of ponds, and developed systems for prioritising the use of water and distributing it in a fair way.

#### Staying on the land

The villagers of Gujarat, and in particular the women, have shown what can be achieved if disintegration and dependence can be replaced by social cohesion and self-reliance. Anywhere at all this kind of initiative would have enormous benefits – the development of skills and confidence, the softening of social hierarchy and exploitation, the freeing-up of time for income generation, the improvement of health and the freedom from constant anxiety. In Bhal, it has actually made it possible for people to stay on their land.

**'Local people have installed water harvesting tanks that enable them to face the dry season without fear'**

There is no reason in principle why local government could not be active in promoting this kind of self reliance, and I continue to hope that one day they will. But I have very little faith in the present government's capacity to move away from centralised delivery. They have been forced to acknowledge the success of these local solutions, and in theory we have their backing for our work. In practice, they are afraid of devolving real power to the community. They are afraid of giving people a sense of responsibility and ownership over their own resources. They are afraid of a move which might encourage popular pressure on the government to abandon its own plans and

divert their resources towards people-led initiatives. They have let us down, and as a result *Utthan*, together with other organisations, is now engaged in a campaign to promote self-reliance without using the mechanism of local government.

**'This is not a government programme: it is the people's programme which the government has a duty to support'**

If there were no gap of interest between the locally elected representatives and the people who elected them, then it might be acceptable to implement this approach through the existing system of village panchayats (local councils). But while those systems of representation continue to exclude and marginalise people on the grounds of gender or caste or political affiliation, then they cannot possibly provide the kind of collective empowerment that makes this initiative work. The government now thinks that this is their programme, and that we have a duty to implement it successfully. I've told them repeatedly that this is not a government programme: it is the people's programme which the government has a duty to support. Those are two very different perspectives. ■



**ASHOKE CHATTERJEE** IS AN INDEPENDENT COMMUNICATOR SPECIALISING IN WATER AND SANITATION, AND LED THE TEAM WHICH PRODUCED A RADICAL ANALYSIS OF THE PROBLEMS FACED BY THE INDIAN STATE OF GUJARAT. HERE, HE SPEAKS ABOUT THE PARADOX OF ASKING GOVERNMENT INSTITUTIONS TO ADOPT NGO METHODS, AND ASSESSES WHAT MIGHT BE NEEDED TO GET THE BEST NEW STRATEGIES WORKING ON THE GROUND.

FOR AT LEAST fifteen years civil society has been urging governments to move towards the kind of people-centred, locally specific approaches that are the only way to deliver water, sanitation and hygiene to the poor. But the proponents of that case are now up against a formidable barrier: we're demanding a fundamental change in attitude and policy from state institutions that have neither the inclination nor the aptitude to make such a change – institutions which, in some cases, are deliberately trying to stall or subvert the shift towards community-led solutions.

**'We're demanding a fundamental change in attitude and policy from state institutions that have neither the inclination nor the aptitude to make such a change'**

Against that kind of opposition, NGOs and community groups will find it hard to advance their cause until they have made some profound changes of their own. People's institutions must expand their range of expertise; they must develop their confidence and management experience; they must be able to support their advocacy with irrefutable evidence; and they must demonstrate their capacity to handle the responsibilities which they are asking the state to relinquish. Only when that is done will civil society be strong enough to pressure governments into showing a practical commitment to the idea of people-centred development.

The right to safe water and sanitation, which depends upon the right of people to plan and implement their own solutions to the problem, should now form the basis of a political movement – led by the people, backed by civil

society, and willing to go to the supreme court if that is what it takes to clear the obstacles that are denying millions of people access to their acknowledged human rights.

#### Looking back

In 1998 the WSSCC launched the VISION 21 initiative in Manila. It was an attempt to take a hard look at why we've spent so many decades chasing targets that are never met; an effort to gather evidence from around the world that points towards a better way of doing things, and to shape that evidence into some kind of consensus.

At that time the Indian landscape was littered with success stories that had died a few months after the photos had been taken and the reports submitted. Gujarat itself was in the grip the worst drought for years. Sharing the frustrations of the Council, we agreed to support VISION 21 by putting together an analysis of our own past mistakes and formulating our own set of guidelines about where to go from here.

With the expressed backing of the state government we formed a working group that was initially comprised of NGOs. As the study progressed, the group expanded to include experts from research institutions and government agencies, economists and scientists, social workers and engineers. Drawing on the unprecedented breadth and depth of knowledge that had been gathered around the table, the team produced a set of core recommendations on policy, strategy and action. The final document – Jal Disha – was probably the most extensive and profound survey of its kind carried out anywhere in the world in response to VISION 21.

The questions raised by this document should have been the starting point for a dialogue on state policy. But from that day to this, we have

never been given the opportunity to discuss our report with the government.

#### The pipe dream

The report reached the conclusion that human well-being is best assured when people are placed in charge of decision making and problem-solving. Given the chance to act for themselves, a community's own resources of energy and intelligence can be the most powerful instrument of change.

The implementation of that approach, the report suggested, demands changes not merely of degree but of kind: there must be a 'paradigm shift' away from past roles and responsibilities, in order to make possible the transition to locally operated and democratically managed solutions. Government must move towards a role as facilitator, while people's organisations accept new responsibilities for planning, implementation, and maintenance. These new relationships cannot come into being without a spirit of partnership between governments, people, and NGOs; and none of this will happen unless there is a collective decision to put water, sanitation and hygiene at the core of Gujarat's strategy for human development.

**'The government had a vision of water flowing through pipe-lines to every village. It became clear to us that this was not going to happen'**

Specifically, the report focused on the sector's failure to address the repeated cycles of drought that threatened Gujarat's rural population and contributed to the crisis of urban migration. While the government was clinging to a vision of water flowing through pipe-lines to every village in the state, it

became clear to us that this was simply not going to happen; and that even if it did, the provision of water alone does nothing to ensure its equitable distribution nor to guarantee better health. There was an urgent need, then, to find local answers to drought and to the management of scarce water.

The report identified a number of examples in which communities had proved themselves able to develop technological solutions, manage both water and money, handle contracts and carry out maintenance. In particular, the women of rural Gujarat have since demonstrated the potential of rainwater harvesting on such a massive scale and with such success that any suggestion that 'it can't be done locally' has been shot to bits.

The people most affected by the problem must be allowed the greatest share in the process of analysing their situation, planning their response to it, and taking the responsibility for the long term success of their solution. But unless robustly democratic and accountable local systems are put in place to ensure that their voices are heard and acted upon, a proportion of the population – usually the weak and the marginalised – are likely to find themselves excluded from the services provided. If the installation of a water pump, for example, is not accompanied by a mechanism for deciding where it is to be located and who it is to be used by, then the water may remain inaccessible to the poorest or the lowest caste groups in the village. The report cited a number of instances in which the failure of participation had led to the failure of projects, especially where women – who are the domestic managers of water and sanitation – had been excluded from the decision making process.

It is the establishment of these democratic systems that represents the real challenge –

**'If the theories are not robustly supported by the facts, there is no way for civil society to make progress at the negotiating table'**

and it is that process, rather than the installation of taps and toilets, that needs to be properly monitored by those engaged in the struggle for water and sanitation. If this kind of community empowerment can be achieved, then the coverage rates and the UN goals will follow in time.

**'The state itself has been built around the idea of centralized planning and delivery as the fastest road to development'**

We are not against having goals and targets; but if people start chasing figures again, without thinking about the process that they're using to get there, we're on for another disaster. What we really need to track is whether the woman at the village hand pump or latrine has made the key decisions about how it was built, where it was placed, and who is responsible for its maintenance – not an easy process to follow in statistical terms. But we must find indicators that allow it to be followed, and they must be hard-headed, measurable indicators; not woolly 'feel-good' things that can't be properly analysed.

In reaching these kinds of conclusions, the Gujarat team found that their analysis corroborated exactly the approach being advocated on a global level by VISION 21. For some, the fact that we seemed to be closing in on a genuine solution was encouraging. For others it was clearly a threat.

#### Adopting the rhetoric

We were prepared for the possibility that the government might find our analysis unsettling. The state is wedded to the idea of big pipelines supplying water from central sources – an approach that seems to offer an attractive 'quick-fix' to Gujarat's history of water scarcity and drought. High-tech, gigantic schemes

requiring huge investment also carry opportunities for patronage, profit and electioneering. The potential for corruption and kickbacks is a very real and very persuasive element of these strategies. By contrast, there is no money to be made from the local solutions which we are advocating.

What we were not prepared for was the ease with which the language and rhetoric of VISION 21 and the Jal Disha report have been hijacked to package plans and proposals that have very little to do with genuine, people-centred approaches. Bureaucrats have mastered the terminology of 'paradigm shifts' and 'locally specific solutions', while continuing to regard communities as beneficiaries (not clients) and NGOs as contractors (not change agents). With some honourable exceptions, documents like VISION 21 and Jal-Disha have been brandished as evidence of the new 'paradigm' while the ideas within them are opposed or ignored in practice.

The real problem here is that the state itself, since Independence, has been built around the idea of centralized planning and delivery as the fastest road to development. Its mindset and institutions have hardened for fifty years around a culture of command. Its hallmarks are standardised, centralised, technology-driven approaches rather than local options; policies and plans built on control rather than facilitation; mandates and organisational cultures that invest wisdom in authorities, not in communities and households. In addition, people-centred approaches are a serious threat to power, careers and control over massive financial resources.

It's a paradoxical position, but we are petitioning a shift from very institutions that, even with the best will in the world, will find it difficult if not impossible to act as vanguards of change. So where next?

### Fighting the cause

When political self-interest and institutional inflexibility are denying millions of people basic rights, water and sanitation becomes a political issue – a cause that must be fought for like other human rights. At the moment, civil society is in poor shape to engage in fighting that cause. If we are to get into shape quickly, we might have to start demanding a 'paradigm shift' from ourselves.

The first step towards that must be a widening in our expertise. The sector professionals who first came together in Gujarat quickly realised that we needed to have a sound fix on the geo-hydrological conditions in the State, a thorough grasp of the urban situation, a profound understanding of the social sciences and the challenge of behavioural change. This knowledge-gap can only be bridged through alliances with experts from a wide range of disciplines.

Once this is done, it becomes possible for civil society to take on the central task of advocating the cause. This requires a lot more than just meetings and petitions: the real task is to confront politicians and decision makers with proposals that make practical sense because they are backed by irrefutable evidence of their success on the ground. It may take major investments of time and effort to build the evidence into a compelling case. But if the theories being advanced are not robustly supported by the facts, there is no way for civil society to make progress at the negotiating table.

If NGOs want this kind of influence, then they must start thinking not just about how to participate in government schemes, but about how to innovate and take responsibility for the success or failure of programmes of their own. Before it asks government to relinquish control and hand over funds, an NGO or people's

organisation must show itself to be credible – and that depends upon a proven capacity to plan budgets, keep to schedules, handle money, monitor progress and stand accountable for failure. Many in the NGO or voluntary sector resist this because they feel that spread-sheets and executive summaries are somehow antithetical to 'the fire in the belly.' They have a certain contempt for the managerial work and commercial values that come from the world of business. Advocacy skills that can turn ideas into campaigns are often missing. But if they see themselves as visionaries and idealists, then they ought to look back at Gandhi – a visionary who well understood the value of meticulous managerial skills.

**'If they see themselves as visionaries and idealists, then they ought to look back at Gandhi – a visionary who well understood the value of meticulous managerial skills'**

Alongside this readjustment to the attitudes of business, civil society has to review its relationship with the private sector. As soon as they hear the word 'privatisation' anywhere near the word 'water,' many NGOs jump to the conclusion that Coca Cola has taken over the people's water supply. The fact that we are the private sector has not yet struck us.

This attempt to make water and sanitation into a political cause is going to be an uphill struggle: sanitation, in particular, is not politically sexy, and it never becomes an issue during elections. But it is the task of civil society to use every conceivable means, including the media, to make water, sanitation and hygiene into an issue that does win or lose votes, that does make the front pages

and does weigh on the minds of people in power. It is only through that democratic process that government will be held to the rhetoric that it has already adopted.

### A human right

Human rights may prove to be the most effective rubric under which such a campaign can be organised; and the law may prove to be the most powerful tool for jolting government out of the complacency that surrounds this issue.

The government of India is constitutionally bound to extend the right of safe sanitation and clean water to every citizen. If these basic services were really seen as human rights and understood to be urgent, life-threatening issues, then the government might begin to recognise its legal obligation to attack the problem in a concerted way – even if that means using methods that politicians and bureaucrats find difficult. If it then fails to do so, it seems to me that government must accept responsibility for the death and disease which follows from that failure.

No Indian politician or party has yet stood in court charged with failure to uphold the people's right to water and sanitation. Despite the landmark legal judgements which have advanced the cause of environmental protection or of people living with AIDS, no-one has yet taken a diarrhoeal death to court as a collapse of governmental responsibility. But when children are dying every day, and when governments are refusing or neglecting to take that seriously, then civil society must be prepared to use every possible means – including the law – to put an end to the scandal. ■



**SAIT DAMODARAN** IS THE FOUNDER AND DIRECTOR OF *GRAMALAYA* – AN INDIAN NGO THAT HAS RECENTLY LED SUCCESSFUL CAMPAIGNS FOR TOTAL SANITATION IN VILLAGES AND SLUMS IN TAMIL NADU. HERE, HE ARGUES THAT NATIONAL GOVERNMENT'S ACCEPTANCE OF NEW APPROACHES WILL NOT WORK UNTIL IT IS BACKED BY TRAINED AND COMMITTED GOVERNMENT PERSONNEL AT LOCAL LEVEL.

OVER THE last fifteen or so years, NGOs have put in the patient and sometimes frustrating work of testing people-led water and sanitation programmes in slums and villages across India. Quite apart from the low-cost technologies that have been developed, this effort has yielded a strategy – or at least identified the basic principles of an approach – which could now be used to bring clean water, safe sanitation, and hygiene awareness to millions.

National and State level governments have not been slow to recognise the value of these new ideas. Directives are now being passed down which reflect the insights generated by NGOs. All the right language is being used – 'participatory, transparency, demand driven' – and I do not question the sincerity of the people who are trying to get these concepts into the mainstream.

**'Ideally, we're aiming for a situation where villagers or slum residents have the confidence to challenge politicians and engineers'**

The problem is that the methods now gaining credibility at higher levels are not being understood by officials, bureaucrats and engineers further down the government line. As a result, even the best new policies are weakened by the time they reach the ground. It is like passing a block of ice through many hands – by the time it reaches the poor, there is simply nothing left.

There is clearly a challenge for higher government officials here. Giving sanction to new approaches is not enough.

For a start, you have to guarantee that your own staff get the training they need to do the job properly. If lower officials don't even know what the new policies are about, how can they be expected to put them into action? If they are bored, cynical, corrupt, unskilled and untrained, how can they be expected to seize on this with the commitment required? People right down the line must be convinced that a new opportunity has arisen in which they have a key part to play. And they must be shaken out of an attitude of minimal-compliance with regulations. If it's going to work, we need zeal and imagination to be applied, not a rigid following of orders. We need people working with their heart, their head and their hands to make sure that this has real impact on the ground.

From the other end, I would advocate a campaign led by communities, civil society and NGOs to make the people aware of the initiatives being promised by their government. If a community group has never even heard of the Total Sanitation Campaign, how can they ask their representatives why nothing is happening in their village? Clearly, there is a place for the local media to get involved in raising public awareness.

But the grassroots campaign has to do more than simply raise awareness. If local officials are to be held accountable, then the community must be in a position to question their methods and their practices. Ideally, we're aiming for a situation where a group of villagers or slum residents has the confidence to challenge local politicians and engineers. They must be able to ask the officials the right questions at the right time: why hasn't the finance been deposited in the account of the community group? Why has the contract been awarded to a private company when the

community group is ready? Why is there no sign of training for the local hardware manufacturer? Why are you building that check-dam over there?

**'If local governments fail to get behind the new approach, they will continue to see their own initiatives de-railed by the indifference of communities'**

This kind of self-confidence depends upon communities having a sound grasp of the new policies, and having the technical capacity to act as a watchdog during their implementation. NGOs must take the lead in building that degree of capacity. Since there are simply not enough NGOs to reach every village and every slum, we must be thinking of ways in which the community can act as a multiplier. *Gramalaya* is working to train local level 'SHE teams' (Sanitation and Hygiene Education) so that they are able to take over the task of informing and educating other communities.

If local governments fail to get behind the new approach, they will continue to see their own initiatives de-railed by the indifference of communities. I recently saw a government engineer working in a village where the people, because they had not been consulted, totally ignored him. They actually let him build a dam that they knew wasn't going to work properly. He was not a corrupt man – but he did not understand the value of local knowledge and the importance of local participation.

It comes down to an attitude of mind. And that's why 'mind-washing' has to come first. Without it, 'hand-washing' will never happen. ■



**SHUNMUGA PARAMASIVAN** IS WATERAID COUNTRY REPRESENTATIVE FOR INDIA. HERE, HE EXPLAINS HOW A NEW COLLABORATION BETWEEN NGOS AND GOVERNMENT IS GOING TO SCALE WITH THE KIND OF DEMAND-DRIVEN STRATEGIES HE BELIEVES TO BE AT THE HEART OF SUCCESSFUL SANITATION SCHEMES.

FOR MANY years *WaterAid*, together with the rest of the NGO sector, has been criticising the government for its adherence to a subsidy-based and supply driven approach that we know doesn't work. The national government has countered with the accusation that, while NGOs are very loud in proclaiming their success in fifty villages, they never have anything to say about an approach that might bring sanitation to the whole country.

Basically, they were right. Not even all the country's NGOs put together have the human and financial resources required to deliver water and sanitation to a nation like India.

The outcome of this dialogue has been a renewed attempt to collaborate: government and NGOs are now working to put our hard-won knowledge into action on a scale that matches the challenge, and the results are starting to come through. In the district of Cuddalore, only 6% of people had access to a household latrine at the launch of the Total Sanitation Campaign in April 2000. By the end of 2004, that figure will have been raised to 80%. Approximately 1600 individual family toilets are now being built – and used – every week.

**'Not even all the country's NGOs put together have the resources to deliver water and sanitation to a nation like India'**

Acting on the recommendation of *WaterAid* and other NGOs, the government agreed to divert its resources away from hardware subsidy and towards the 'hidden cost' of bringing latent demand to the surface. The subsidy given to families below the poverty line has been drastically cut, the costs of the

latrine is paid by the families themselves, and the government's money is spent on the task of unlocking demand. This is done through a team of NGOs who are paid a set 'incentive fee' for every family that builds a latrine as a result of their efforts.

**'By the time the money was saved, the 10 million viruses had been forgotten. Latrines had been pushed down the list of family priorities'**

It was clear, then, that the programme would stand or fall on our ability to unleash demand. Given the timescale and ambitions of this trial, we had to find a fast, efficient way to reach every family in the district.

The one obvious resource at our disposal was the Self Help Groups set up several years ago as part of a women's development programme and which are still being promoted by NGOs. These are groups of 15 or 20 women who run savings and credit schemes for income generation.

In each Self Help Group we identified the three most enthusiastic and enterprising women and invited them for several days of training. These women went home with the skills, information, and materials needed to kick-start the programme in their village. Each of them agreed to persuade three other families to build latrines, and each of those families agreed to convince two more households. In a very short space of time, this multiplying strategy should have twenty-seven families in each village working on a household latrine.

The most important of the motivational tools is a card that spells out the dangers of unsafe sanitation in clear and graphic detail.

Supported by pictures, the sheet makes clear that every gram of human faeces contains 10 million viruses, 1 million bacteria, 1000 parasite cysts, and 100 parasite eggs. It illustrates the routes through which excrement gets into people's mouths, and shows how even the slightest degree of contamination can result in diseases that are already well known to the villagers.

For most village women, this is enough to instil a deeply felt need for safe sanitation. The problem is the money required to meet that need. The hardware alone adds up to something like 800 rupees – a cost that many families can't meet with a single payment. At first, the women's groups got a sanitation savings scheme going amongst their members. But this takes its own time, saving ten rupees here and twenty there. And by the time the money was saved, the 10 million viruses had been forgotten. Latrines had been pushed down the list of family priorities.

**Leave no gaps**

Once created, the demand for sanitation must be met there and then – not six months later – with a supply of hardware and the means to pay for it. In order to bridge the time gap between the unlocking of demand and the time it takes to save up the money, the Total Sanitation Project has brought in the support of commercial banks. The Self Help Groups are now running savings schemes and handling the loans of bank money to the villagers. When a family has demonstrated their commitment to build a latrine, they are eligible for a loan immediately.

With demand rising and finance in place, the NGOs are working to support networks that deliver the hardware. In part, supply takes care of itself as an informal affiliation of local businesses respond to the demand for

sanitary hardware. But that process must be backed by an effort to set up small production centres, train local masons, spread good ideas and organise the supply of materials.

This is a programme that has to find finance because the latrines are pour flush, water-sealed models that cost 800 rupees to build. The other approach to providing sanitation for the poor – an approach which has been piloted with some success here in Tamil Nadu – advocates that the unlocking of demand be followed by the innovation of very low-cost or even no-cost latrines. Personally, I have some sympathy with this view. It strikes me that the key to safe sanitation lies not in technologies but in breaking the habit of open defecation.

I can cite myself as an example here. I was raised in a village that had no latrines of any kind, and like everybody else I practised open defecation as a boy. And then I went to college and grew accustomed to the facilities there. When I returned to my village after being away for six months, I was uncomfortable with the idea of open defecation. In the end I pressured my father into building a latrine.

**'It strikes me that the key to safe sanitation lies not in technologies but in breaking the habit of open defecation'**

All the evidence points to the fact that, once people have got used to defecating in a fixed and private place, they will not go back to the practice of open defecation. That means that if they start with a very simple, very low cost latrine, they will improve it incrementally as time passes and resources become available.

The objections to the idea of a simple pit-latrine are also valid. The very techniques that

**'It is imperative that government throws its full weight behind this effort. The sheer scale of the task demands their active participation – not their passive acquiescence'**

we use to generate demand stress the fact that excrement contains pathogens that must be sealed off from flies and from human contact. This tends to make the villagers more inclined to go for the kind of smell-free, water-sealed toilets that they have seen in the town or at the bus station.

**The last 20%**

As a direct result of this programme, Cuddalore already has the highest rural sanitation coverage of any state in Tamil Nadu. But there is still a long way to go before we can start talking about total sanitation. The first big challenge is to reach the hardcore 20% of villagers that for one reason or another do not participate in the scheme. *WaterAid* had conducted a detailed analysis of this last 20% in an attempt to identify exactly why they remain unreached.

Many of them are migrant or seasonal workers who do not own any land on which to build a latrine. Others are local families that simply don't have the space. We are now working on a proposal which will allow these groups to construct a small, multi-family latrine on land that is not their own.

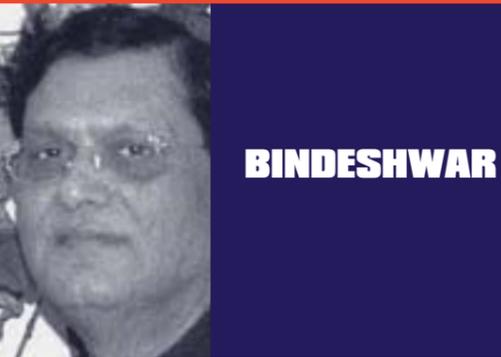
Perhaps the best way to guarantee total coverage is for the village council to pass a resolution that commits every single inhabitant to abandon open defecation. Once this decision has been endorsed as a priority by the entire community and is pursued as a collective effort, they will be more willing to accommodate the needs of their landless or migrant neighbours.

Total, 100% sanitation will never be reached unless the government does all it can to promote the campaign. Even two years after the launch, many local officials in Cuddalore remained unaware that a thing called the Total

Sanitation Campaign was underway. Some local governments even saved the money that was previously allocated for subsidy and spent it on air-conditioning the office or buying a new 4x4 vehicle. If the government was publicising this campaign among the target communities, then the villagers might be in a position to call their local leaders to account when it fails to materialise.

**'Some local governments even saved the money that was previously allocated for subsidy and spent it on air-conditioning the office or buying a new 4x4 vehicle'**

It is imperative that government throws their full weight behind this effort. In Cuddalore, the NGOs are doing all the facilitation work, all the training, all the production of materials to educate and inspire villagers. If this is to be scaled up and adapted in other districts, local government will have to grasp the idea that facilitation work is not peripheral – it is what drives the project forward. And if we are ever going to reach all of India, then government personnel will have to be trained to take on the role of unleashing demand by themselves. The sheer scale of the task demands their active participation – not their passive acquiescence to an 'NGO way of doing things.' ■



**BINDESHWAR PATHAK** IS THE FOUNDER OF *SULABH INTERNATIONAL SOCIAL SERVICE ORGANISATION*, A MOVEMENT WHICH HAS PROVIDED SAFE SANITATION TO MORE THAN 10 MILLION OF INDIA'S URBAN POOR. HERE, HE RECALLS GANDHI'S CAMPAIGN FOR SANITATION AS A MOVE TOWARDS SOCIAL EQUALITY, AND ARGUES THAT PROGRESS NOW DEPENDS UPON THE GOVERNMENT'S COMMITMENT TO GET NGO METHODS WORKING AT SCALE.

SULABH IS not an NGO that builds toilets. It is not a local charity that depends upon government grants to finance sporadic, one-off projects of water and sanitation. It is a self-sufficient movement, employing some fifty thousand dedicated staff who work day in and day out, right across the country, to promote the cause of sanitation as a means to eradicate poverty, disease, and social injustice.

The organisation was founded in 1970 to take up Mahatma Gandhi's call for the eradication of the demeaning and inhuman work done by the Indian sub-caste of scavengers: manual emptying of dry latrines and removal of the night-soil in head loads.

Gandhi was the first person to take the cause of sanitation seriously, and the first to see that without sanitation there can be no equality for the poor. Our mission, then, was never the construction of toilets as an end in itself. We set out to help the scavenger caste achieve cleanliness, dignity and respect – and in so doing, to undermine the prejudice which supports the caste system in India.

**'In 1974 the idea that people might actually pay to go to the loo was ridiculed'**

The first task was to develop an affordable alternative to the dry latrines that require manual cleaning. Starting with a model already being used in rural India, we created a pour-flush latrine that empties into twin leach pits – a low-cost system that works across a wide range of geological and cultural conditions. Once the technological solution had been established, Sulabh embarked upon a campaign to encourage the conversion of all dry latrines to the new Sulabh toilets. The construction of community public toilets for the

urban poor came later. But it was a natural extension of the original Gandhian vision: cleanliness, dignity, and equality for all.

#### **Building a movement**

To date Sulabh has converted 1.2 million dry latrines into water sealed toilets that do not require manual cleaning, and constructed more than 6,000 community toilet blocks that are used by some four million people every day. The strategy of employing community members to run the sanitation programme has been central to this achievement.

Sulabh staff work to educate, inform and motivate their peers; to promote the understanding of health and hygiene; to pressure their governments; to manufacture latrine hardware; to construct and oversee the construction of private and community toilets; and to clean, manage and maintain the facilities. Together, they constitute a body of energy and expertise that sustains the Sulabh movement. They are, in effect, the missionaries of sanitation. And just as a religion cannot expand without active promotion from its adherents, so a movement for social change requires a corps of full-time, committed personnel to make sure that it does not falter or stagnate.

This could not be sustained without some form of self-finance. From the beginning, Sulabh decided on a policy of charging for its services and thus paying its own way. When a city authority contracts us to carry out a sanitation scheme, we charge them 15% to 20% of the total construction costs – money which is used to pay for the social and managerial work that ensures the success of the project.

Sulabh also charges the beneficiary who uses a community toilet block. In 1974 the idea that people might actually pay to go to the loo was

ridiculed. But on the day that we opened our first toilet, more than five hundred people came forward with their money. Accustomed either to open defecation or to public toilets that were like hell on earth, more than two million people have now shown that they are willing to pay for a facility that is clean day and night, which gives them access to safe drinking water, which enables them to wash and to defecate in privacy, which provides space for the washing of clothes, and which in some cases offers additional facilities for community meetings, family healthcare, primary education and social services.

**'The right to cleanliness, privacy and dignity can be used to rid India of a tradition which, for centuries, has sentenced people by their birth to the lifelong task of carrying away other people's excreta'**

This system of charging both governments and users is not a profit-driven policy: it is what enables Sulabh to provide and to maintain high quality services of sanitation. It has also been the key factor in allowing Sulabh to replicate the first community toilet block across the country and beyond. If an NGO simply takes a grant of money and spends it on a single project, then all well and good – a toilet has been built. But no movement, no momentum has been created. Sulabh, by contrast, is fired by its engagement in a long-term struggle for social equality. To sustain that campaign we must have a mechanism that allows us to keep the movement going, to promote our own cause and scale-up our own achievements.

As part of the fight to provide sanitation for all, Sulabh has innovated technological solutions for the design of toilets, for the treatment of waste water, and even for the creation of bio-gas and fertilizers from human excreta. These technologies will play a central role in the provision of sanitation for all. But our greatest contribution is the system itself.

**'Had Gandhi been alive, this would have been given the political attention that it so evidently deserves'**

We have shown what can be achieved when sanitation is linked to employment and social uplift, when a particular sanitation project is seen as part of an ongoing campaign that expands its reach and gains in momentum with each toilet built. And if you're asking how to meet the *Millennium Development Goals* for 2015, then the existence of a movement like that is more important than talking about ambiguous concepts like 'participation.' You have to ask yourself the question of who is participating, who? Sulabh can give a clear answer: 50,000 employed local people, people who provide a catalyst for action and a permanent reserve of practical expertise, people who form the nucleus around which civic authorities and beneficiaries can work to improve the quality of their cities and the quality of their lives.

#### **Political apathy**

It is impossible to overstate the improvement which hygiene and sanitation brings to the lives of the urban poor. Properly organised, a community toilet block can meet people's basic demand for a clean and private place to attend to their daily needs, to wash their bodies and their clothes, and to collect clean

**'Gandhi was the first person to see that without sanitation there can be no equality for the poor. Our mission, then, was never the construction of toilets as an end in itself'**

water for their homes. The right to cleanliness, privacy and dignity can also be used to rid India of a tradition which, for centuries, has sentenced people by their birth to the lifelong task of carrying away other people's excreta. And the social gain from sanitation and hygiene does not end there. It is widely acknowledged that the lack of decent toilets is a major obstacle to the education of girls, who will simply not go to schools that fail to provide facilities. It would not be an exaggeration to say that the provision of hygiene and sanitation is the greatest single step which a country can take towards social equality, economic progress, and an improved quality of life for all.

Had Gandhi been alive, this would have been given the political attention that it so evidently deserves. But so far no-one has stepped forward with the vision and commitment required to make this a national priority. Senior politicians and bureaucrats do not have to face the reality of open defecation or filthy public toilets that is a daily trial for the urban poor, and especially for women and girls. Sanitation slips too easily from their minds and their agendas. Sulabh is now planning to convene a meeting of the major political parties, to present them with a strategy for sustainable urban sanitation, and to ask them 'What's your agenda on this? You have a policy for the building of temples and the improvement of transport. Why don't you have a plan for the provision of toilets?'

We have worked for thirty years to demonstrate a technology, an approach, a viable way ahead. In that time we've managed to build over a million toilets. But it is important to grasp the fact that, in India, there are something like 120 million families who have no toilet at all. About 10 million dry latrines are

still cleaned by scavengers every day. Seen in that context, Sulabh – which is much lauded for 'working at scale' – has achieved almost nothing. The truth is that no NGO has the capacity to mobilise the human and financial resources required to tackle a crisis of these proportions. True, their resources of strategy and expertise will be indispensable to meeting *Millennium Development Goals* for global sanitation – but very little will be achieved without the active support of government.

**'In India, there are something like 120 million families who have no toilet at all. Seen in that context, Sulabh – which is much lauded for 'working at scale' – has achieved almost nothing'**

We do not believe in the constant antagonism and accusation which have marred the relationship between government and NGOs. We're asking senior politicians to come and work with us – to take the technologies and the approach pioneered by Sulabh and to apply them at a scale that matches the enormity of the problem. In the space of ten or fifteen years, working in partnership with politicians as determined as ourselves, we could turn sanitation and hygiene into a reality for every family in India. ■



**KAMAL KAR** IS AN INDEPENDENT SPECIALIST IN SOCIAL AND PARTICIPATORY DEVELOPMENT. HE WORKS AS A CONSULTANT AND TRAINER TO GOVERNMENTS, DONOR AGENCIES AND NGOS THROUGHOUT ASIA AND AFRICA. OVER THE LAST FOUR YEARS, HE HAS CONCEIVED AND TESTED AN APPROACH TO RURAL SANITATION THAT MANY BELIEVE TO BE AN IMPORTANT BREAKTHROUGH. HERE, HE DESCRIBES THE TECHNIQUES AND IMPACT OF CLTS – COMMUNITY LED TOTAL SANITATION.

OVER THE LAST thirty years, literally hundreds of NGOs have been working on sanitation in Bangladesh. Thousands of toilets have been built in that time. Coverage has been raised, targets have been met, and projects deemed successful.

So why do diarrhoeal and other hygiene-related diseases continue to account for at least 40% of total morbidity? Because even where latrine coverage is raised, the practice of open defecation remains rampant. And as long as this practice survives, human shit will find its way into people's mouths. The result is a burden of disease that kills 115,000 Bangladeshi children each year.

Those children cannot be protected by schemes that raise latrine coverage to 60% or 70%. The real breakthrough can come only when the chains of faecal-oral contamination are broken – and that means safely confining all the shit.

**'The practice of open-defecation is a deeply ingrained habit of mind and body. It cannot be reversed by offering subsidies'**

After three decades of sustained effort it was difficult to find even 100 villages – out of 82,000 – where this had been achieved. And now, quite suddenly, we've hit on a way to bring 100% sanitation to rural communities across the country. In the space of three years, more progress towards total sanitation has been made than in the last thirty. So far, over 15,000 families in 400 villages have abandoned the practice of open defecation.

Community Led Total Sanitation (CLTS) represents a radical departure from all previous approaches – a profound re-thinking

of what sanitation means and how it is to be achieved. It is the beginning of a movement that is already spreading like a benign virus across Bangladesh and beyond. And it has implications for national and international policy which cannot be ignored by any government which is serious about health for its people.

#### **Does your family defecate here?**

The practice of open-defecation is a deeply ingrained habit of mind and body. It is a socially and culturally accepted norm of behaviour. And it cannot be reversed by offering subsidies for those families that build a toilet.

CLTS sets out to eradicate open-defecation not through the charitable bribe of subsidy, but by hitting the nerves of pride, shame and disgust – igniting a sense of self-respect that is strong enough to counter a lifetime of habit and centuries of custom.

The process begins with the team that is igniting the 'community led process' taking a simple stroll around a village, led by the local people. The villagers want to concentrate on the best that their village has to offer. But when the team arrives at an open defecation area, they pause. They look. They ask questions.

The locals try to move them on, ashamed that the visiting professionals have seen the smelly, dirty edges of their village. But the visitors will not take the hint. 'Which families use this area for defecation?' they ask. 'Do you always come out here? Or are there places closer to your homes for use at night-time or during emergencies? What is this place like in an epidemic of diarrhoea?'

The embarrassment is acute. But something else is happening as well. Though they may have walked through the area every day of

their lives, the villagers are disturbed by what they are seeing, through the eyes of their guests, for the first time: the place is filthy, squalid and disgusting.

**'This is a revelation that brings with it a sense of real disgust and, for some, a feeling of abject dejection'**

By the end of this defecation area transect walk, it is the villagers who are pressing for a date and a time to be fixed when they can address the problem collectively. Some don't want to wait even a single day, and start encouraging others into immediate action.

That first meeting starts with a mapping exercise in which the villagers set out the position of their homes, mark the places used for defecation, and then draw in the routes which each family takes to get to the site that they use. They then work out the amount of faeces being contributed by every household. Starting with an initial unit of measurement per person, they multiply the figure to calculate the quantity of faeces that is deposited per family, per day, per month and per year.

The accumulated volume of faeces is reckoned in units that can immediately be visualised by the community – cart loads, truck loads, boat loads. There is much amusement as people reckon-up which family contributed the most shit to the pile this morning. But as the exercise goes on, that amusement turns to anxiety. People are horrified by the sheer quantity of excrement being left in their village: '120,000 tons of shit is being dumped here every year? Where the hell does it all go?'

That question is answered by the people themselves. Prompted by the facilitators, they draw up flow-diagrams that show exactly

where all the excrement goes: into their bathing ponds and rivers, and from there onto their clothes, their plates and cups, their hands and mouths. Onto the udders of their goats and into their milk. Onto the feet and hooves of their livestock, dogs and chickens, and onto the flies that carry it straight to their food.

The most disturbing fact to emerge is that each person is ingesting 10 – 20 grams of faeces every day. This is a revelation that brings with it a sense of real disgust and, for some, a feeling of abject dejection. But there is no sense of resignation: 'What are we doing here? We're eating each other's shit, for God's sake! This has got to stop.'

**'The villagers have shown an absolutely staggering degree of technical ingenuity'**

There and then the villagers form a committee, usually known as a Sanitary Action Group, which will take the lead in tackling the problem. The members of the Action Group agree to construct their own latrines within a week, and to encourage 10 or 12 families in their neighbourhood to do the same. Religious leaders and female schoolteachers are often among the most active campaigners, using their public voice to build demand and deepen understanding of safe sanitation. Processions are held to raise awareness, and meetings are convened in which villagers, especially women, can learn more about the practice of sanitation and basic hygiene.

#### **The barefoot engineers**

Every family works out an individual plan to stop open defecation. Those who can afford latrine hardware start to find out about the costs and availability of rings, slabs and pans. But the programme does not prescribe a

**'By shifting the measure of success away from toilet coverage and towards the elimination of open defecation, CLTS is able to keep focused on the ultimate goal: improving public health'**

technological solution. It does not even ask people to choose between a range of available options. Instead, it encourages the community to design and build their own latrines, according to local conditions and to what they feel they can afford.

The villagers, with minimal support from external facilitators, have shown an absolutely staggering degree of technical ingenuity. In order to stimulate this, the facilitators have identified the most talented natural designers in each village, encouraged and understood their latrine designs, and titled them 'Village Sanitary Engineers.' Using their own skills and the materials at hand – bamboo, tin, gas pipes – they have designed more than 30 different models of latrine which can be built for a fraction of the costs involved in most low-cost solutions designed by outsiders.

Unlike formally trained engineers, these men do not start with a perfect structure in mind and then try to bring the cost down. Instead they start with the idea of a latrine that costs nothing to build, and then go on to innovate stage-by-stage improvements, which gradually increase the cost. At a recent meeting in which professional sanitary engineers were presented with the village designs, one of them voiced the concern that the village-innovated models would not last very long, whereas his latrine was built to last for ten years. The barefoot engineer replied that even his family home needed a new roof every couple of years. Why should his latrine have to last for ten? 'When the pit is full', he said, 'I'll plant a fruit tree in it and dig a new one.'

When it comes to spreading demand for sanitation the external facilitators – like the professional engineers – have to stand back and learn from the skills of local people.

During the initial process of motivation, someone will almost always emerge who has a natural talent for communicating with his or her peers. The best of them demonstrate an extraordinary ability to inspire, cajole, and shock their neighbours into action. I remember watching one of these community catalysts at work with a group of fifteen or twenty villagers. He plucked a single hair from his head, touched it lightly on some human excrement, and dipped it quickly into a glass of water. Raising the glass, he offered it to the assembly. 'Anyone willing to drink this water?' There were looks of disgust from the villagers. 'Why not?' he asked. 'Because its got shit in it' came the reply. 'How do you know?' he said, 'Can you see it?' The villagers agreed that they couldn't see anything. And then he delivered the killer question: 'How many legs has a fly got?'

**'A man from the Nawgaon district invented the slogan 'One fly is deadlier than one hundred tigers' to help people to grasp the dangers of faecal contamination'**

Project facilitators cannot afford to ignore this kind of talent. We made a strategic decision to invest in these people as the frontline extension agents for total sanitation. Through national workshops they get the chance to share their experience with catalysts from across the country, to develop new approaches and spread best practice. The ideas that come from these people can be brilliant. A man from the Nawgaon district invented the slogan 'One fly is deadlier than one hundred tigers' to help people to grasp the dangers of faecal contamination. That phrase is now in use all over Bangladesh.

### The measure of success

Counting the number of latrines built, which has been a basic premise of most sanitation projects, has allowed NGOs and governments to meet their own targets while losing sight of the real purpose of their efforts. By shifting the measure of success away from toilet coverage and towards the elimination of open defecation, CLTS is able to keep focused on the ultimate goal: improving public health. The health impact of total sanitation, as opposed to, say, 70% latrine coverage, is dramatic and immediate.

Perhaps the greatest benefit has been felt in parts of the Haor region of Bangladesh, where constant flooding, high population density on raised mounds of land, and the practice of open defecation combine to cause devastating epidemics of hygiene-related disease. There are villages where not a night passes without the sound of a family crying for a child dead or dying from diarrhoea. Through CLTS, some of these communities are witnessing the first generation of children to grow up free from the recurring bouts of dysentery, diarrhoea and typhoid that have sickened and killed their children in the past.

### Subsidy or self respect?

The CLTS approach, which uses shame to trigger action, has in the end brought great pride to many communities. As soon as the 100% sanitation target is reached, the people put up a board that declares 'No-one in this village defecates in the open.' In Maharashtra, the first Indian state to pilot CLTS, some of the villagers have painted signs onto the wall: 'Daughters from our village are not married into villages where open defecation is practised.' These signs are a challenge thrown down to neighbouring communities who, quite spontaneously, have started to visit the sanitised villages and request the help of their

leading barefoot engineers and community catalysts. But they are also a celebration of something achieved using nothing but people's own talent and resources

**'In Maharashtra some of the villagers have painted signs onto the wall: Daughters from our village are not married into villages where open defecation is practised'**

And that is the key point: Community Led Total Sanitation works by triggering an urgent need to abandon open defecation – not by offering subsidies or solutions from outside. Once those feelings of self-respect are ignited, the community will carry the project forward with real drive and determination – there is no inertia, no passivity, no need for the superficial incentive of subsidy.

The moment you mention subsidy, you start to undermine that process. Subsidy shifts the focus away from the issue of sanitation towards the messy terrain of relative poverty and village hierarchies. It blurs the clarity of purpose, and dampens the spark of mental ignition. It encourages people to hang around waiting for money, rather than getting on with the job. It lowers the value that people give to their latrine and weakens their will to use, clean and maintain it. Most important of all, subsidy is a donation in cash or in kind that fundamentally damages the feelings of self-respect that lie at the heart of this approach.

Community catalysts are already spreading the Total Sanitation movement to villages across Bangladesh. Through geographically scattered family networks, the movement is even jumping hundreds of miles and catching on in villages where no outside facilitator has

set foot. But we cannot expect to reach the entire country by word of mouth alone. To fulfil its potential, CLTS requires outside support from all levels without disturbing the underlying philosophy of self respect.

It is of the utmost importance that the facilitating agency goes into a village with an open mind and a relaxed, straightforward attitude. If there are any hidden agendas, any attempts to prescribe a solution or strike a deal on latrine hardware, the entire process will be undermined.

The kind of facilitation required can only be done by people who are willing to let villagers take the lead. If the Total Sanitation movement is to be mainstreamed into national policy, it is essential that the lowest tier of government personnel – the ones who will be responsible for initiating CLTS at village level – are properly trained in the flexible and responsive attitude that this strategy demands. If they rush in, dictating how things are to be done, then there is no chance of success.

For thirty years, governments and donor agencies have been pushing and paying for a sanitation strategy that was developed without reference to the knowledge and priorities of rural people. The Department of Public Health Engineering has been building latrines designed by their own engineers without ever concerning itself with whether or not those latrines get used. NGOs have been busy raising coverage and meeting targets in their own small area, resigned to the fact that open defecation continued to pollute the water, the hands and the food of everybody.

CLTS demands that conventional wisdom be set aside, and that long-accepted presumptions be abandoned. But after thirty years of such painfully slow progress, it is time for people to open their minds to the fact that it works. ■



**ROKEYA AHMED** IS THE SENIOR PROGRAMME CO-ORDINATOR FOR ADVOCACY AT WATERAID BANGLADESH. HERE, SHE DISCUSSES AN ALMOST TOTALLY NEEDED ASPECT OF THE PROBLEM – THE LACK OF MENSTRUAL HYGIENE THAT CAUSES UNTOLD SUFFERING TO WOMEN THROUGHOUT THE DEVELOPING WORLD

IN THE Western world, women change their sanitary towels six or seven times a day during the time that they are menstruating. Each time, they have the privacy and the hygiene that they need to dispose of their sanitary towel and change it for a clean, new one. For the vast majority of women in rural Bangladesh, there are no disposable sanitary towels. Instead, they use rags – usually torn from old saris and known as 'nekra'.

There is often no private place for these women to clean or change the rag, no safe water and no soap to wash it properly. A culture of shame forces them to wait for the privacy they need at home, or else to hide themselves in the woods and fields outside the village. The rag is washed furtively in the pond or river, or in a small pot called a 'bodna', kept for the purpose and filled with unclean water. It is then hung to dry in some well hidden, often damp and unhealthy place.

This practice is responsible for a significant proportion of the illness and infection associated with female reproductive health. Rags that are unclean cause urinary and vaginal infections, including fungal and bacterial infections that develop when they have not been properly dried. Even serious infections are left untreated by girls and women who feel unable to confront male doctors with this type of problem.

Despite the huge impact which privacy and hygiene could have on the health and the life-quality of women, this issue has been ignored by almost every project aimed at bringing water, sanitation, and hygiene to the rural poor. Ignored because people are embarrassed by it. And ignored because, despite all the rhetoric, most development projects are still failing to ensure the real empowerment and participation of women.

It is not enough to convene a community meeting or management group that includes a certain percentage of women, and then proceed on the assumption that those women are making decisions. Outside organisations working in villages or slums must find ways to encourage the genuine involvement of women at the key stages of planning and decision making – rather than using them as tokens of their politically correct approach.

**'Even today, a culture of silence and taboo surrounds the most neglected problem caused by poor sanitation: the lack of menstrual hygiene that is responsible for a huge proportion of women's reproductive health problems'**

The NGOs which pioneer these strategies must also focus on training their partners in development – other NGOs, donor agencies, and governments – to make sure that women have a real say in the design and implementation of new projects. And they must do what they can to break the culture of silence and taboo that, even today, surrounds and perpetuates the problem of menstrual hygiene.

Millions of women in traditional and conservative societies cannot be made to wait for the huge changes in culture, law, and religion which might one day lead to full equality and empowerment. They have a right to privacy, health, and dignity – now. ■

**'This, in effect, is a government policy to exclude four million people from the right to hygiene and health'**



**DIBALOK SINGHA** IS A MEDICAL DOCTOR WHO FOUNDED THE DSK IN 1989 TO BRING HEALTHCARE TO DHAKA'S POOR. RECOGNISING THAT SAFE WATER AND SANITATION WOULD PREVENT THE MAJORITY OF THE SICKNESS THAT HE FACED, DR. SINGHA TURNED THE DSK INTO AN NGO THAT HELPS PROVIDE BASIC SERVICES TO THE SLUMS. HERE, HE TALKS ABOUT THE POLITICAL PRIORITIES WHICH ARE PREVENTING HIS WORK FROM GOING TO SCALE.

THE SLUMS of Dhaka are the physical manifestation of poverty in this country. Thirty two years after the independence of Bangladesh, we have managed to create a narrow elite of super-rich families, and at the same time lock millions of people into the kind of poverty from which it is almost impossible to escape.

When I say that these people are 'locked' into their poverty, I mean that they are quite deliberately being denied the opportunities that would enable them to better their own situation. First and foremost, they are being denied the right to the water and sanitation which would immeasurably improve the quality of their health and their environment.

Despite the gravity of the crisis in Dhaka, the government is still not showing any serious commitment to the provision of basic services. For decades the urban poor have been refused connections to mains water because they are not the legal tenants of the land that they live on. This, in effect, is a government policy to exclude four million people from the right to hygiene and health.

The DSK has developed a strategy for connecting poor neighbourhoods to mains water supply, and the slum-dwellers have proved themselves willing to pay for and maintain the service. Instead of seizing on this as a breakthrough, the city authorities are clinging to the absurd idea that the slums are a temporary phenomenon which can be solved with bulldozers. It is a response which shows utter contempt for the people whose hard manual labour supports not just the day-to-day life of the city, but also the garment factories that are central to the economy of Bangladesh.

The poor would never have been able to challenge that land-tenure law for themselves. It took the DSK – represented by well known,

well dressed, well educated people – to approach the Water Board (DWASA) on their behalf with an offer to stand guarantor for the payment of services.

**'Dhaka's poor still live with the threat of violence and intimidation – including one recent case of mass rape – which are the tools of eviction'**

Even a faint familiarity with the problems posed by lack of water would have told these officials that the poor are the most willing to pay. Slum dwellers are already paying fifty times more than the legal clients of the water authority, by buying their water from the 'waterlords' who have tapped thousands of illegal connections into the mains.

For those not lucky enough to live close to a waterlord, there is the daily trial of collecting water from shops or mosques or even from the outflow of factories – a task that absorbs a huge amount of women's time and strength, and which exposes them to the risk of conflict, humiliation and assault. In the worst cases, women are collecting water so polluted with pathogens and chemicals that it destroys their family's one real asset – the good health that enables them to work and earn.

In ten years of effort, the DSK has managed to persuade the authorities to provide about a hundred water connections in the slums. This adds up to approximately one water point for every forty thousand slum residents.

Nonetheless, those taps represent the first cautious recognition by the city's officials that the slums exist and that their inhabitants have a right to water. Now that the system has been shown to work, the obvious next step is to take a clear, cross-party decision to reverse the

city's policy on connections for illegal tenants. With that policy in place we could begin to make progress on the scale required.

Safe water could be a starting point for sanitation and hygiene, which would dramatically improve the health and productivity of Dhaka's urban poor, free-up their time and lead to an immediate improvement in the quality of their streets and houses. The process of forming Water Committees could serve as a basis for building the skills that lead to self-reliance and prosperity. The construction of sanitary latrines might even be used as a pre-condition for gaining rights of land tenure. All this would be a start towards the poverty alleviation that the government, by signing up to the *Millennium Development Goals*, pretends to be supporting.

Instead we have a situation in which the government is reluctant to do anything that might acknowledge the legality of the slums and the rights of their inhabitants. Promises are made, declarations are signed, ideas are accepted, laws are even passed – and then the commitment gets shelved. While the bureaucratic changes are filed away, the slums go on growing, the sickness and squalor get worse, and the people continue to live with the violence and intimidation – including one recent case of mass rape – which are the tools of eviction.

There is nothing inevitable about this reality. But if the government is serious about eradicating poverty, then I say to them: invest in these poor people. Divert your resources. Take a look at your laws. Stop paying for multi-million dollar naval frigates that sit idly in the Bay of Bengal, and start trying to help the people whose hard work keeps this country going. ■



**DIPAK GYAWALI** WAS TRAINED AS AN ENGINEER AND POLITICAL ECONOMIST. BETWEEN NOVEMBER 2002 AND MAY 2003 HE SERVED AS NEPAL'S MINISTER OF WATER RESOURCES, AND IS NOW AN INDEPENDENT WRITER, RESEARCHER AND ANALYST. HERE, HE CHALLENGES GLOBAL CIVIL SOCIETY TO HOLD THE DONOR BUREAUCRACIES TO ACCOUNT FOR THE HUGE SUMS SPENT – AND OFTEN MISSPENT – IN THE NAME OF THE POOR.

IN THE '70s and '80s the World Bank implemented three successive five-year programmes in water and sanitation in Nepal. Despite the millions of dollars that were poured into the sector, urban Nepal's water situation deteriorated even further. The UN's Water Supply and Sanitation Decade of the '80s came and went without bringing significant improvements to the lives of the poor.

The donor bureaucracies have always blamed recipient governments for the fact that many of these programmes failed to meet their stated objectives. The type of accusations levelled at the recipient country are by now familiar: 'These third-world bureaucrats are corrupt and inefficient by their very nature. It's impossible to get anything done with governments like that.' While it is true that governments should take their share of responsibility, it is now time for civil society to take a hard look at the donor bureaucracies themselves – and to hold them accountable for their own share of gross misjudgement, inefficiency, and even corruption.

The inefficient use of Northern taxpayer resources is a feature of most donor-sponsored programs. In a recent study of water supply projects in Nepal, we found that the cost of services provided through the donor agencies was four times greater than the same services provided by Community Based Organisations. The high price of delivery is largely due to the expensive and inappropriate procedures of donor agencies, to the enormous fees paid to expatriate consultants even where local engineers could provide better services, and to the padding of costs by global contractors which goes ahead despite the pretence of open bidding.

It is hard to avoid the conclusion that aid has become an industry in itself. Many of the guidelines laid down by donors as non-

**'It is time for civil society to take a hard look at the donor bureaucrats – and to hold them accountable for their share of gross misjudgement, inefficiency, and even corruption'**

negotiable pre-conditions for funds are clearly designed to ensure the profitability of their chosen contractors and to favour the economic interests of multinational companies based in the home country of the donor. These considerations – rather than the possible impact which a programme might have on the lives of the poor – are dictating the agenda.

Worse still are the mechanisms by which foreign aid mitigates against national capacity building. A donor might insist that a project be implemented by the private sector, and then name the company which will carry out the work. In doing so, it might be replacing an existing affiliation of local companies with a single foreign multinational – swapping an indigenous and democratic form of privatisation with an oligarchic and alien form. Despite the high sounding rhetoric about 'local capacity building,' donors may even refuse to work through national governments – an attitude that damages our ability to follow-through when a project has ended.

**'Personally, I would like to see foreign aid reduced'**

The conditions laid down by donors also tend to show little understanding of realities on the ground. They will insist on the privatisation of resources such as forests or water, without considering the way in which these resources have been used for centuries by local people. Or they might demand that their own programme be run in isolation, forcing governments to abandon parallel programmes that would help meet the end objective.

Personally, I would like to see foreign aid reduced. With less easy money available, the exorbitant profit-making scope of big business would be cut back, and local capital (currently being invested in jewellery, conspicuous

consumption and urban housing) might be attracted to invest in basic infrastructure. I am convinced that the resource gap could be bridged through the empowerment of communities, who have repeatedly shown themselves capable of delivering in a more efficient and sustainable way than foreign donor agencies give them credit for.

Even more crucial is that aid donors, who are constantly demanding accountability from governments, should themselves be called to account for the huge sums that they spend each year. Northern countries have not seriously debated aid efficiency in their parliaments or press. Until they hold impartial reviews of how aid bureaucrats spend their taxpayer's money, they will remain complicit in its misuse.

A fundamental part of this process must be a new partnership between civil society in North and South. Genuine civil society should be asking hard questions of the donors, challenging them to justify their programmes and account for their spending. It is the task of all 'social auditors' to speak out against the inefficiency and self-interest of donor bureaucracies. 'Social auditors' might include academics, students, investigative journalists, activist NGOs, public interest lawyers, or simply concerned individuals. If these people collaborate across the North-South divide, then they do have the power to influence both national and global policy.

A stable and sustainable policy terrain depends upon the robust presence of this 'third leg' of activist social auditors. It is only they who can provide a corrective to the unbridled profit-seeking of markets and the stultifying rigidities of bureaucracies. If their voice is drowned out, then the aid industry – centred on its contractor-bureaucrat nexus – will continue to run amok. ■



**UMESH PANDEY** IS WIDELY RECOGNISED AS NEPAL'S LEADING VOICE IN THE CAMPAIGN FOR WATER, SANITATION AND HYGIENE FOR ALL. TRAINED AS AN ECONOMIST, HE JOINED THE WATERAID TEAM IN NEPAL BEFORE STARTING *NEWAH* IN 1992. IN THE SPACE OF A DECADE, HE HAS MADE *NEWAH* INTO THE COUNTRY'S LARGEST NGO. TO DATE, MORE THAN 640,000 POOR PEOPLE HAVE BEEN DIRECT BENEFICIARIES OF *NEWAH*'S WORK.

FOR MORE than thirty years the government of Nepal has been trying to provide drinking water to its people. Hundreds of kilometres of pipes have been laid by government engineers. But three decades and millions of dollars have not been translated into better health for the people. Life expectancy has not risen very much. Child mortality has not fallen very far.

It took government a long time to realise that the provision of water alone has a minimal impact on public health. And when they finally recognised the importance of sanitation and hygiene, in the Water and Sanitation decade of the 1980s, they showed themselves to be both unable and unwilling to tackle the issue. It was around that time that they began to use the right jargon – to speak about ‘integrated’ programmes of water, sanitation and hygiene. But if you actually look at the initiatives that the government led through the ‘80s and into the ‘90s, you’ll find that sanitation and hygiene remained the neglected elements within what was still considered to be a ‘water project.’ A tiny fraction of the total budget for the sector – something like 4% – was set aside for sanitation and hygiene promotion.

**‘Just as the problem of HIV/AIDS cannot be discussed without talking frankly about sex, so the problem of sanitation cannot be discussed without talking frankly about shit’**

In part this was because the question of sanitation and hygiene requires a more sophisticated approach than government was able to offer. The projects were being led by

government engineers – people untrained and incapable of dealing with anything but the hardware side of a programme. Their entire professional education is focused on technologies, designs and costings. They’ve never received a day’s training about the social and cultural side of their work. They give no thought to the idea of community, local knowledge or social dynamics. This is a failure in the education system that requires urgent redress. *NEWAH* are now in talks with engineering faculties and institutes to try and get the curriculum revised.

**‘Even journalists are unwilling to print articles about something so unglamorous as shit, toilets, taps, and hand washing’**

The other reason for the government’s failure to face these problems is harder to excuse: they are embarrassed to even raise the issue of sanitation. In South Asian cultures, people find it difficult to discuss intimate and personal questions. But just as the problem of HIV/AIDS cannot be discussed without talking frankly about sex, so the problem of sanitation cannot be discussed without talking frankly about shit. 28,000 children are dying every year from inadequate sanitation and hygiene, and the Government of Nepal is not doing everything it can to save those children because they are too embarrassed to talk about shit.

Government is not alone in this. Other elements of civil society, including people within the field of development, are reluctant to pressure the government on the issue of sanitation because they consider it to be a dirty word. Even journalists, who are prepared

to raise every kind of scandal in the national media, are unwilling to print articles about something so unglamorous as shit, toilets, taps, and hand washing. Academics, too, seem reluctant to lend their voice to the campaign for safe sanitation.

If they speak out loudly, civil society and the media can have a huge impact on public policy. They have recently given a lot of attention to the issue of arsenic poisoning in ground water, for example. Responding to the pressure, government is now directing policies and resources to deal with the problem of arsenic. All well and good – but what about sanitation? In twelve or thirteen years of NGO campaigning, the problem of sanitation has not generated anything like the concern that has been shown over arsenic in the last two or three years. Civil society is complicit in what amounts to an unforgivable neglect. We are now trying to use the WASH campaign as a platform on which civil society can make a more determined stand.

**‘Civil society is complicit in what amounts to an unforgivable neglect’**

The government claims to have recognised the importance of sanitation and hygiene, and its rhetoric now acknowledges the ‘software’ strategies that are essential for a project to have any lasting impact on public health. But recognition is not enough – what is required is a fundamental attitude shift, and this is still not happening. The government continues to pay lip-service to the ideas that NGOs like *NEWAH* and *WaterAid* have been pushing for more than ten years. It has established something called a ‘Sanitation Cell’ at national level, for example; but even

a quick glance at the allocation of resources will reveal that sanitation is still lagging way behind water in the list of priorities.

**‘Government is about to spend half the decade’s resources on a water supply system for Kathmandu which will serve just 6% of the nation’s people’**

The government has also set up a National Level Steering Committee, which is supposed to be a forum in which all sector partners, including NGOs, are invited to share in the formation of public policy. In reality, the government calls a meeting of the Steering Committee when it wants support for ideas and programmes that have already been decided. We’ve been trying to get this new Bangladeshi idea of Community Led Total Sanitation (CLTS) discussed at the Steering Committee, but it is not being taken seriously because it is not a government led initiative.

There are a lot of good ideas being tried out in Nepal. Eco-san toilets, for example, and CLTS. *NEWAH* has developed a sophisticated strategy for identifying different levels of poverty, and is already using this to provide differentiated subsidies to the very poor. But these kinds of forward-thinking ideas are not being addressed at National level; they’re being piloted in sporadic, small scale efforts. The government presented what it called an ‘action plan for Nepal’ to the recent SACOSAN conference. But that paper pushed many of the most promising people-centred initiatives and alternative technologies to the sidelines. Decades of work by dedicated experts and activists was, in effect, relegated to the footnotes. A genuine, sector-wide plan of

**‘28,000 children are dying every year from inadequate sanitation and hygiene, and the Government of Nepal is not doing everything it can to save those children’**

action for Nepal does not exist. There is an urgent need for the Steering Committee to get serious – to bring together the partners on equal terms and establish some kind of collaborative strategy that can be taken to scale fast.

The donors, too, need to support a consensus view of the best path forward. If the big aid funds worked together they could use their influence – their power to grant or withhold huge sums of money – to bring government into line with new approaches. In reality, the government is able to play the donors off against each other because they have not agreed a common set of principles. If the Ministry reject the conditions laid down by the World Bank, they do so only because they know that the Asian Development Bank is likely to step in with a more negotiable set of guidelines.

**‘While the engineers and contractors plan the multi-million dollar tunnel that will feed this system, the rural poor are left struggling to get the basics in place’**

The problem here is one of priorities. Government is about to spend more than half the decade’s resources on a water supply system for Kathmandu which will serve just 6% of the nation’s people. I would like to point out that those 6% include all the real decision makers in the sector, who will henceforth enjoy clean tap water 24 hours a day.

While the engineers and contractors plan the multi-million dollar tunnel that will feed this system, the rural poor are left struggling to get the basics in place. Last year I went to work on a programme in a remote village of the

Himalayan foothills – five hours of steep and difficult walking from the road head. As I approached the village I came across a woman carrying a bag of taps, valves and pipe fittings up to the water project. The bag must have weighed 25 kilos, and the woman was around 70 years old. ‘Have you carried that from the road head?’ I asked. ‘I’ve made the journey 10 times already’ said the woman. ‘I’m doing this for my granddaughters. I don’t want them to have to haul water all their lives, as I’ve done.’

It is now time for that commitment to be matched by the government. If the primary concern were the improvement of public health and the alleviation of poverty, it would be listening hard to all the good approaches being generated by the sector. And it would be taking a lead to form a more genuine action plan for this country. ■



**NELLY GUAPACHA** WAS THE LEADING CAMPAIGNER FOR THE NEW WATER SUPPLY SYSTEM THAT WAS COMPLETED IN THE TOWN OF EL HORMIGUERO, COLOMBIA, IN 1996. SHE WAS THE FOUNDER OF THE TOWN'S WOMEN'S COMMITTEE, AND IS CURRENTLY PRESIDENT OF THE COUNCIL FOR COMMUNITY ACTION. THIS IS HER ACCOUNT OF WHAT IT TAKES TO GET PEOPLE WORKING FOR THE COMMON GOOD.

WHEN I FIRST came to live in El Hormiguero, twenty five years ago, the town was a dump. A depressed, depressing place. The streets were filthy, there was rubbish everywhere, and people wandered around barefoot. If it was raining when they got up in the night to go to the toilet outside, they wrapped plastic bags around their feet to walk through the mud.

There was already a well here, and a system that piped water into people's homes. But the well was too close to the pits that people had dug to get rid of their excrement, so the sewage was mixing with the water. What came out of the tap was so filthy and disgusting that you couldn't even wash clothes in it. People washed their clothes in the river. I hated seeing the women all day at the river washing clothes. And I hated it myself. We drank the water from the river, too. The kids were constantly sick with diarrhoea.

**'People had lived with it so long, they didn't even see how bad things were'**

It was bad here – but as far as I could see, no-one was lifting a finger to do anything about it. You might think that people who have to live with this kind of thing everyday would be committed to the cause of changing things. You might think it would be easy to get them to support programmes aimed at helping them. You'd be wrong. Poverty breeds a kind of apathy, a resignation. People here, in El Hormiguero, gave no time to bettering their everyday living conditions – they'd lived with it so long, they didn't even see how bad things were.

It is useless to try and get a programme of water or sanitation off the ground in a situation like that. The first task is to wake people up –

to get the community moving, get people to see the filth and to see what they can do about it. Without that, there'll never be any of this famous community participation.

If anyone was going to even notice the state of El Hormiguero it was going to be the women, because we're more sensitive to these things – to the way things look, the way things smell. And so I started to go round town talking to the women, trying to get them interested in cleaning up the place. Eventually we had a group of about 50 of us. We called ourselves the Women's Committee.

#### Getting started

Our first idea was just to clean up all the rubbish in the streets. We went and cut brush-wood and made brooms, and we started sweeping the whole town, street by street. And then we started going into people's houses to see how they were getting rid of their waste, and telling them to dig a pit in their yard and burn the rubbish. It wasn't easy – people felt that we were sticking our noses into their business.

In the end it was pride that made people move. If you start sweeping the street in front of another woman's house, it won't be long before she's doing it herself. Once the idea got going, people started to keep their houses cleaner, and stopped dumping rubbish on the streets. Some even started to put flowers out on their porches.

The Women's Committee was a start. It was through the committee that we got organised and worked out what was wrong, and what we might do about it. We started to write letters – not very well presented ones at first – but nonetheless letters to the Municipal Council and to NGOs, telling them what we needed. We got the city bus service extended to

include us, for example, and we got a radio-telephone so that we weren't completely cut off. We also got noticed by Plan International, who gave us tiles and bricks to improve our houses. In the end we got enough support to build a school canteen.

Until then, the only official organisation here had been the all-male Council for Community Action – which was so useless that it might as well not have existed. Men just aren't so interested in the state of things, because it's not them that have to cope with it all. They say they work hard, and they haven't got time for community meetings. It's true – they do work hard. But they still find the time to play cards and dominoes most of the evening. It is always the women who have to worry about the basic things like getting the water – waking up at five in the morning, like we used to do, to carry water on our heads; making sure there's enough to cook and wash the clothes and clean the house and the children. If you want things done for the common good, like water, then you have to get women into where decisions are taken.

**'If you start sweeping the street in front of another woman's house, it won't be long before she's doing it herself'**

The work of the Women's Committee made it easier to start electing women onto the official Council for Community Action. Once we had done that we planned more ambitious schemes, like getting the roads paved, and like getting a new water system for the town. The municipality was supposed to be organising funds for an aqueduct, but nothing ever came except promises.

#### Cholera

In the end it took an outbreak of cholera – we had about seventy children sick here, and one who died – before the mayor's office sat up and took notice of El Hormiguero. I was furious that after all our efforts to get them to improve the water, a child had died from it. Politicians will always bury a story like that as soon as possible, so I went straight to the local TV station and told them about the whole thing. It made it impossible to cover up.

**'The men say they haven't got time ... but they find the time to play cards and dominoes most of the evening'**

Cholera really shook some people up. But there were still a lot of people – even after the cholera outbreak – who didn't seem that bothered, or didn't seem to see what we could do about it. It wasn't that they didn't want clean water, or understand that contaminated water was dangerous. It was more that they had stopped seeing the squalor that they were living in. The self-esteem of the community was so low, so broken, that people didn't even care about their own cleanliness. They didn't care if they went about barefoot, or looked as if they'd just got out of bed, or if they were dirty, or if their kitchen floor was made of mud. But you can't just go up to a woman and tell her to clean herself, to wash her clothes and her children, to brush her teeth and her hair. What can you do?

In the end I asked the TV people – the same ones that came to report on the cholera epidemic – if they would come and make a film about El Hormiguero. They came and took shots of the streets, right down through the town. They gave me the tape, and I got hold of a video recorder and invited the whole town to

**'Without waking people up, there'll never be any of this famous community participation'**

come watch the film in the school building. Watching themselves on TV really came as a shock. People saw themselves from the outside for the first time. It was a bit like looking into a mirror – and the impact was huge. People started to dress better, to wash themselves, to worry more about their personal hygiene and the state of their homes and their children's cleanliness. Suddenly, people could see why we needed water and sanitation and proper rubbish disposal.

Meanwhile, the public emergency of cholera had made El Hormiguero exist for the politicians. They sent drinking water here in a truck, and began looking into a permanent solution. One of the organisations that came out was the Water and Sanitation Institute *CINARA*, from the Universidad del Valle. They supervised the project and brought the Team Learning idea (see Mariela Garcia page 50). By the time they arrived, we had already started to get people moving.

Almost every family in El Hormiguero helped in the planning of the new water system. *CINARA* organised public meetings, and for the next three years the community was very active – participating in meetings to look at our options, deciding on what was best for us, and joining in the workshops which showed us how to run the system. Originally we wanted to build a treatment plant for the river water; but when *CINARA* pointed out how much that was going to cost us, we opted for digging a better well instead, with a proper sanitary seal and a whole new system of pipes to bring the water into our houses.

When we finally got around to the building stage, everyone was out in the street with picks and shovels, digging the ditches for the tubes – even the women and the kids, even on the weekend or when it was raining. The reward came at the end of 1996, when we

finally switched from the old water system to the new. Everyone was outside, watering the garden and washing the front of their house! In my house the water even got to the bathroom – we had quite a few showers that day! Every single house was covered, and people are getting good quality water at decent pressure. I can't say that the system is perfect, or that we haven't had our share of problems. But in general people are glad to get the water, and satisfied enough to pay for it without complaining too much.

#### The people that live here

When I think back now it's obvious that what got things moving was the group of 50 women. The Committee was key. It was the match that struck this community alight. If we hadn't done that, then nothing would have changed.

**'The Women's Committee was the match that struck this community alight'**

I think we learnt as well that if you want to get people to move, then you have to start looking not just at diarrhoeal disease and cholera but at the conditions people are living in: the dust, the filth, the shoddy roads and buildings, the dirty-looking water. If you can get people to care about the whole situation, then you can get them wanting clean water.

Governments are not interested in places like El Hormiguero. Left to their own devices, politicians will do nothing to improve the quality of life and health in places like this. Once you realise that, it's clear that the job of getting things done falls to the people who actually live in towns like this. If you can get them moving, then anything is possible. ■



**ANIBAL VALENCIA** IS A SOCIOLOGIST AT THE *CINARA* INSTITUTE IN CALI, COLOMBIA, AND IS CURRENTLY WORKING WITH UNICEF TO PROMOTE HYGIENE EDUCATION IN SCHOOLS. REACHING SCHOOL CHILDREN, HE BELIEVES, CAN HELP FORGE THE 'MISSING LINK' BETWEEN IMPROVEMENTS IN WATER AND SANITATION AND IMPROVEMENTS IN PUBLIC HEALTH – BUT IT CAN'T BE DONE BY SIMPLY TELLING CHILDREN ABOUT THE HEALTH RISKS.

THE EDUCATIONAL system is perhaps the most powerful weapon we have in the fight for better hygiene and health. Knowledge, carried by kids into their homes, could have a lasting impact on the hygiene and health of millions of families. This potential is simply not being exploited.

First of all, it should be said that a child cannot do much to change hygiene habits in a home that lacks any form of sanitation. And a child who lacks sanitation facilities at home may also be reluctant to use unfamiliar toilets at school. So it is always important that school sanitation projects be integrated with programmes for sanitation in the home.

Secondly, the attitude of the teacher is crucial if we are to make any progress in schools. All too often, they don't think that sanitation and hygiene is their responsibility. We have seen examples of schools in which the facilities are so filthy and so neglected that the children go to the toilet in open spaces nearby, or use the toilets of neighbouring houses, or else are forced to wait until home-time. We have even seen schools where the teachers have decent toilets, kept clean by the children, but where the children themselves lack any facilities at all. One obvious response to this attitude is to make sure that teachers' own toilets are part of the same sanitation facility that is used by the children in their charge.

Even where teachers are willing to tackle issues of sanitation and hygiene, they may lack the necessary skills and information. These things are not usually part of a teacher's own education. Worse still, the subject is absent from the national curriculum. Hygiene may be touched upon in classes dealing with health or the environment but, given the huge impact on public health, sanitation and hygiene should be a central part of the school curriculum right from the

start. Knowing how important this could be, the *CINARA* institute, together with UNICEF, has developed special teaching methods and materials which stand ready to be incorporated into the national curriculum.

**'At present we have teachers trying to promote hygiene in schools that have no water'**

This is not as straightforward as it seems. Through years of experience working with schools, we have found that simply informing kids about the risks of poor hygiene has very little effect. A teacher can explain the cycle of disease and the importance of hand washing; but for some reason these risk-based lessons fail to hit home.

Instead, we have come up with an approach which appeals not simply to a child's sense of danger, but also to his or her self-awareness and self-esteem. These theories have now been formulated into a manual for teachers, with an introduction to the method followed by 30 specific classroom exercises. This is a strategy that is having a far greater impact on children's behaviour than simply highlighting the health risks.

All this must of course be based on doing something about the state of sanitation in schools themselves. Decent sanitation in schools is a measure of the respect in which we hold our children. But it's also a practical pre-requisite for teaching hygiene. At present we have conscientious teachers who are trying encourage hand-washing in schools that have no running water.

But even if we can achieve this, it is also crucial to get away from the old mindset which sees the installation of taps and toilets as the end of the matter. Countless school sanitation

projects have failed because of the presumption that once facilities have been built, they will be used. Schools and governments are wasting their money if they continue to build badly-designed, ugly, standard toilet blocks for children. If the units don't respond to the needs and preferences of the kids, then they will quickly fall into disrepair and abandonment. In Colombia's schools there are countless examples of taps and sinks that are too high for the children to reach. If we are serious about improving child health, then water and sanitation facilities must be built in consultation with individual schools – and they must be accompanied by an educational programme designed to encourage hygienic behaviour and to ensure the proper use and maintenance of the facilities.

If we are ever going to meet national and international goals for water, sanitation and hygiene, then we must take up this 'challenge of the schools'. We need teachers who see hygiene education as their responsibility. We need local government to back them up with finance and community sanitation projects. We need national governments to make hygiene a priority and make it part of the national curriculum. And, where governments fail to do that, we need concerned international agencies to pressure them into action.

Changing habits and improving hygiene is a complex challenge. A universal shift in attitude and practice might take generations to achieve. But if we don't start with our young people – whose thinking hasn't yet hardened into immutable behavioural patterns, who can be reached en masse through the state education system, and who are capable of influencing the health practices of their families – then we will never make progress towards what is the real goal of better water and better sanitation – better hygiene and better public health. ■



**EDGAR QUIROGA** IS DIRECTOR OF THE *CINARA* INSTITUTE AT THE UNIVERSIDAD DEL VALLE, CALI, COLOMBIA – WIDELY RESPECTED IN LATIN AMERICA AND BEYOND FOR ITS PIONEERING WORK IN THE FIELD OF WATER SUPPLY AND SANITATION. HERE, HE ARGUES THAT UNIVERSITIES COULD BE A MAJOR RESOURCE FOR PROGRESS WORLDWIDE – BUT ONLY IF THEY ARE PREPARED TO GO BEYOND DEPARTMENTAL BOUNDARIES AND THE WALLS OF THE ACADEMIC WORLD.

IF THE WATER and sanitation goals are to be achieved, it is imperative that academia gets involved – clearly and unambiguously involved. University-based, interdisciplinary organisations have a vital role to play in the research and transfer of technologies, in the promotion and guidance of programmes, in the training of personnel, in the building of capacity in communities, and in the formation of public policy.

The *CINARA* institute began as a division of the Faculty of Engineering at the Universidad del Valle in the city of Cali, Colombia. But our long involvement in water and sanitation projects has made it abundantly clear that these are not issues that can be resolved by sanitary engineers alone. Any sustainable programme of water and sanitation is going to have to deal not only with technological challenges, but also with a complicated mix of social, cultural, economic and environmental problems.

In response to this challenge, academics from other disciplines were brought in to the Department of Engineering. We are now an interdisciplinary unit that includes both sanitary and civil engineers, sociologists and communicators, economists, architects, microbiologists, chemists, lawyers and geologists. Together, the staff of *CINARA* constitute a permanent body of experts in the field, dedicated not just to the generation of knowledge but also to the transmission and application of that knowledge. We act as consultants, partners and facilitators of programmes throughout Latin America, helping governmental or non-governmental organisations to develop integrated, people-centred, sustainable solutions to the problems of water and sanitation.

Aside from its technical mission, an interdisciplinary institute is able to promote the understanding, gather the support, and

mobilise the human resources that are fundamental to any successful water and sanitation project. Universities are among the few institutions – especially in the developing world – that are genuinely independent, impartial, and transparent. This gives them the credibility that is so often lacking amongst politicians, and means that both governments and communities alike are receptive to the involvement of universities as project partners. It is this respectability that allows *CINARA* to play the key role of project facilitator – guiding the attitude and approach of a project, enhancing communication between the partners, and ensuring that concepts like 'people-centred' and 'participation' correspond to the realities on the ground.

**'The universities of the South represent a powerful but largely un-tapped resource for social and economic development'**

A university's involvement in a water or sanitation programme is unlikely to be permanent, and the number of projects which any faculty institute can tackle is always going to be limited. For both these reasons, it is crucial that universities give priority to building up the capacity of other project participants. When an academic institution pulls out of a programme, it should be leaving behind people in community groups, municipal government, local authorities, NGOs, and private business who are properly trained and equipped to continue supporting that community.

Universities should also try to ensure that their own students graduate with skills and attitudes that serve the development of their society. Traditionally, universities have trained

engineers who are entirely technical and one-dimensional in their outlook. If we could train professionals in a more rounded way, then we would be creating a personnel for this country that could look with a critical eye at development projects and contribute towards the implementation of new approaches.

Finally, academic institutions should be making a strong contribution towards the formation of public policy. If the strategies developed, tested and refined by universities fail to influence public policy, then the effort is being very largely wasted. Consultation and collaboration with government is the most direct means for new approaches to influence programmes at national scale.

The creation of strong, interdisciplinary academic bodies with a clear sense of their social mission is not easy. In the developing nations of the South, university teachers have frequently failed to understand that their social obligation extends beyond the boundaries of the classroom. Nonetheless, there are academics who are willing to put their know-how, and their independence, at the service of human development. To make that contribution effective, they need to overcome the prejudices of their own particular field and embrace the concept of interdisciplinary working groups.

They will also need the backing of international organisations and politicians. The universities of the South represent a powerful but largely un-tapped resource for social and economic development. With enough support and encouragement from national governments and international development agencies, those tremendous reserves of skill and expertise could be harnessed to the cause of reaching the water and sanitation goals. ■



**MARIELA GARCIA** IS A SOCIOLOGIST WHO HELPED DEVELOP *CINARA'S* 'TEAM LEARNING' APPROACH (SEE PAGE 49). HERE, SHE EXPLAINS THE POLICIES AND ATTITUDES BEHIND TEAM LEARNING, AND ARGUES THAT A PROJECT MAY STAND OR FALL ON SUCH NON-TECHNICAL ISSUES AS SELF-RELIANCE AND SELF-ESTEEM.

THE ROOT cause of the failure of so many water and sanitation projects has been the assumption that the problem is primarily technological and can therefore be resolved by engineers. Proceeding on this basis, the planners themselves define the problems that must be overcome and the priorities that must be met. There is no space for consultation with the community, and no consideration of how the technical solution arrived at will fit with the cultural, socio-economic and environmental realities of the recipient community. The result is a total collapse of understanding between provider and recipient, and, ultimately, the community's refusal to use, pay for, and maintain the service.

'Building capacity' is now recognised as a key factor in the development of efficient and sustainable programmes. But how does this work in practice? How do we ensure that the service users are not left as spectators during the planning and construction of the project? How do we generate a real sense of demand, participation, and ownership among a community?

**'The daily struggle for subsistence saps the energy, the will to build a better quality life'**

The first step is to shift the focus away from the technological and towards the human aspects of the challenge. The people who live everyday with inadequate water and sanitation already possess resources of experience and knowledge that are essential for improving their situation. These people must not be seen as passive beneficiaries of a programme, but as key participants. They must become consultants, analysts, and decision takers

throughout the process. Of course, the technical and managerial knowledge of outside agencies is essential; but in order for this contribution to be effective it must be based on the knowledge and experience of the community, on their social and economic realities, and on their traditional means of managing their water resources and their sanitation needs. Participation thus becomes the guiding thread of the programme, and the people come to feel that the programme corresponds to their own ideas and their own priorities.

It is impossible to move forward on this basis unless we can create a forum and, even more crucially, an atmosphere in which the analysis of a community's needs and the development of solutions becomes a two-way process of learning. This is not easy; engineers and project managers are not accustomed to creating the kind of open, questioning, egalitarian atmosphere that is necessary if this approach is to work. It can be difficult for them to grasp the fact that they are there to learn, too, and that their own position and opinions may well be questioned or rejected by the community. Sanitary engineers and government functionaries need to be trained in this new strategy; but more important is their own attitude, their conviction that this is a valid approach.

**Collapse of self-belief**

Before there can be participation there has to be demand. Development programmes have tended to work on the assumption that people will readily join in initiatives designed to meet their basic needs. This presumption fails to allow for the depth of people's resignation to their own circumstances; for the deadening weight of inertia that is both a cause and a

consequence of poverty. The first and only priority of the extremely poor is survival. In those conditions, the daily struggle for subsistence saps the energy, the will to build a better quality life.

**'The sense of inertia can be compounded by a collapse of self-belief'**

This sense of inertia can be compounded by a collapse of self-belief induced by the cultural and economic predominance of Western Europe and the United States. By taking the North as a constant reference point for development, national elites in developing countries can weaken the economic and educational independence of their own people. It is imperative that people in poor communities are allowed and encouraged to develop their own systems of knowledge and organisation. Some indigenous groups, women's groups and Afro-American communities in Colombia are already taking a lead in that process – and they must not be led into the mental habit of believing that their salvation can come through the intervention of the wealthy, all-knowing, all-powerful countries of the north.

Demand creation, then, must start with the generation of self-confidence and self-esteem among the people. An approach which perceives the people as key players in the process, which listens to and acts on their ideas, and which tries to build egalitarian relationships between the project partners will stimulate this sense of self-belief and encourage participation.

It is crucial that the effort to build demand appeals not only to people's need for basic

services, but also to their desire for a whole range of less tangible needs – the need for independence, the need for affection, the need for recreation, the need for a more fulfilling and more decent life. Once people start to believe in their own capacity to effect change, and once they start to envisage a more desirable standard of living, then demand for things like water and sanitation begins to grow.

**Ice-breaking**

Firstly, it is crucial that the outside agency assumes only the role of facilitator. But very often outside institutions, especially governmental agencies, suffer from a lack of credibility. People don't trust them. NGOs and university-based institutions can play this role; but like *CINARA* they first have to win for themselves a reputation among communities, governments and finance agencies as a credible and impartial partner in the process.

It is also essential that the working team formed to implement the project be multi-disciplinary. It should certainly include both civil and sanitary engineers, social-science professionals, communicators, and community representatives. It should actively seek to involve partners from government agencies, local authorities, and both private or state-owned public works and water companies.

**'Demand creation starts with generating self-confidence and self-esteem'**

Community meetings and workshops might start with explanatory and ice-breaking activities, before going on to review and analyse the community's experience of water and sanitation and their need for an improved service. The analysis might take the form of

**'National élites use the North as a constant reference point for development. But is it imperative that poor communities are allowed to develop their own systems of knowledge and organisation'**

creating a map of the community, a map which identifies priorities and takes into account social obstacles as well as technical or geographical ones. Further down the line, activities might include inspection of the water sources with a view to raising awareness of contamination and health risks, or workshops designed to generate an understanding of running costs and the need for payment. Community visits to see other water and sanitation facilities at first hand can help people to understand and analyse potential problems and solutions.

This is a process that takes time – and it is important that the community be given the time to absorb and assimilate the information, to discuss it amongst themselves, to ask questions and propose alternatives.

Once the problem has been analysed and discussed with the community, the institutions involved should come up with a range of solutions which correspond to the realities of community life. These too should be discussed with the community, with information about their advantages and disadvantages and details of the costs of installation and maintenance. The community, in consultation with the outside experts, should then choose which option it wants.

The entire project, from diagnosis to construction, should be centred on a process of participation which allows for the emergence of new community leaders. It should focus on enabling the community and its leaders in both technical and managerial aspects of the project. And it should also include the training of official community observers, whose task it will be to oversee the construction and the running of the system and to report any problems to the project

promoters. This is an element which the construction contractors find difficult to accept, but it goes a long way towards generating a sense of ownership and acceptance of the project amongst the community.

**'Once people start to believe in their own capacity to effect change, demand for things like water and sanitation begins to grow'**

The interdisciplinary working team responsible for promoting the project should also be clear about whom they are intending to train in this type of approach. If pilot projects are linked to regional or national level programmes, then they can serve not only to test and refine new methods but also to train personnel from all disciplines. Engineers, government agencies, and contractors who have absorbed the attitudes and learned the lessons of pilot projects can then apply these techniques to other, larger scale projects with which they are involved. If new approaches are to help achieve wider goals instead of remaining as pilot projects, it is essential that there be an overlap of personnel between such pilot schemes and large scale programmes of water and sanitation. ■

**'The problems got worse after a piped water supply arrived. Water before sanitation is a disaster'**



**LILLY MARIN** IS A COMMUNITY LEADER IN ALTOS DE MENGA, CALI, COLOMBIA. THE NEIGHBOURHOOD, HOME TO SOME 7000 PEOPLE, FIRST CAME INTO BEING A GENERATION AGO AS RURAL MIGRANTS BEGAN INVADING LAND ON THE STEEPEST EDGES OF THE CITY. HERE, SHE GIVES A FIRST-HAND ACCOUNT OF WHY PARTICIPATION MATTERS SO MUCH.

IN ALTOS DE MENGA there were no toilets of any kind. Conscientious people dug a hole and then covered it over with earth. Others defecated on the edge of the settlement, or just used plastic bags which they chucked anywhere – in the street, even into their neighbour's yard. It stank.

The city authorities sent a truck with treated water every week, which we used for drinking. But water for washing came from wells contaminated by the lack of sanitation. The result was that the kids were constantly sick – with diarrhoea, with boils on their skin, with parasites and fevers.

The problems got worse after a piped water supply arrived. Some people built primitive septic tanks, but they were badly designed and badly ventilated, and people had no idea how to use or maintain them. They just flushed everything – faeces, paper, cleaning products – into the tanks, which filled up and fermented enough for some of them to explode. The ground here was too hard to absorb the waste, and we ended up with sewage running down the streets. We learnt then that water before sanitation is a disaster.

Sanitation has got to come first. The city water company built a conventional system of sewerage for the lower parts of this quarter; but it didn't include us up here because the hill is too steep and too rocky to build big sewers. In the end they got the university organisation *CINARA* to try and sort something out.

So we went to the *CINARA* people and asked for our neighbourhood to be included. We wanted them to come and start building straight away. But *CINARA* said it should be a 'Team Learning Project' (see the contribution of Mariela Garcia, page 50), and that the first stage was to organise ourselves into a committee and join in the training workshops.

We had never been involved in anything like that before. We really had no idea. But five or six women – the ones who were most bothered by the lack of sanitation – got together and went to the workshops. *CINARA* helped us look at our own situation, and we tried to work out an affordable solution that could be built and maintained up here, in a marginal neighbourhood which is extremely steep and very hard to get to. We went to look at other sewerage projects in the city, to get an idea of how to go about building and operating a sewerage system.

In the end we agreed on a plan overseen by *CINARA*. The municipal water and sanitation companies provided the materials, which we had to pay for over a period of five years. The NGO Plan International helped us with the costs of specialist labour. And we put in most of the actual work to dig ditches and lay tubes. We also pay the water company a monthly charge for using the sewage network.

Even after work started, there were some really heated arguments between the neighbours. We needed everyone to join in the work, because the pipes had to go across everybody's land. But not all of them were convinced, and some complained that it wasn't their job to dig this or that bit of the street. In the end, what really got people going was when the municipality said that anyone who didn't put in their share of labour was going to have to pay five times as much to connect to the service.

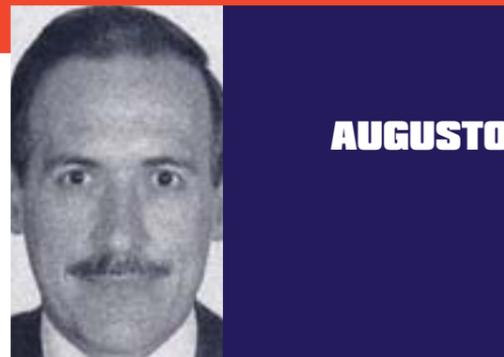
The technology of the systems is simple enough for us to maintain ourselves. It is a 'condominial' system of PVC tubes, buried not very deep in the ground. We've also built a network of small channels to deal with the run-off of rainwater and stop it flooding the sewerage system. In the seven years since it was finished, we've only had two problems

with the network – once the kids put a ball that they were playing with into the system, and another time a bone got stuck in the tube and blocked it up. Because the tanks and pipes are accessible and we know how they work, we were able to sort out both of these without any outside help. Everyone in this sector – thirteen families in all – has responsibility for maintaining their own section of the pipe.

**'Even after work started, there were some really heated arguments between the neighbours'**

The first challenge for a community like this one is to get people ready and willing to tackle the problem. And you need to rely on the women, because they're the ones that are trying to keep their houses clean and their children healthy. Women have to make the time for getting organised, setting up committees, looking at plans, going to workshops. My husband complained that when all this was going on his dinner was never ready on time and his clothes weren't properly ironed.

I don't think anything would have been done here without *CINARA*. Normally, politicians don't understand anything except votes. They appear before the elections, buying votes with bags of cement and packets of food. If they really wanted to help poor people sort out our problems, they would start like *CINARA* did – working with us to find out what is wrong and how we can work on the problem together. If they did that, projects would get finished, people would join in the work and gladly pay as much as they can. And then maybe the politicians wouldn't need to bribe us to vote for them. ■



**AUGUSTO OSORNO GIL** WAS THE DIRECTOR OF DRINKING WATER AND BASIC SANITATION IN COLOMBIA'S MINISTRY OF THE ENVIRONMENT, WITH A MANDATE TO IMPROVE ACCESS TO BASIC SERVICES ACROSS THE COUNTRY. IN THIS OUTSPOKEN CONTRIBUTION HE ARGUES THAT PAST FAILURES ARE THE RESULT OF PROFITEERING AND CORRUPT FACTIONAL POLITICS – AND OUTLINES THE RADICAL MEASURES NOW BEING INTRODUCED TO MAKE LOCAL GOVERNMENT MORE TRANSPARENT AND ACCOUNTABLE.

DESPITE DECADES of investment, half of Colombia's people lack access to safe water and basic sanitation. Why? Because the effort has been undermined and corroded by political self-interest, cronyism, and corruption. It is a political rot that has worked its way into every sphere of local and national government, crippling the effort to attack the problem of water and sanitation.

The de-centralization of government since 1991 has meant that municipal authorities are now responsible for 78% of the money that the country invests in water and sanitation. These local authorities contract utility companies to provide water and sanitation services to the people. There are 2400 such registered companies. About 10% of them are efficient, transparent and accountable. The rest are in the hands of corrupt factional politics.

Over the next ten years Colombia is planning to invest hundreds of millions of dollars in water and sanitation – and we are determined that this money will not be wasted, mis-used, or stolen by inefficient or corrupt providers of public services. The overhaul and modernisation of these companies is not only a priority, it is now an essential pre-requisite for the disbursement of national funds to municipal government. The law now makes it clear that, in order to receive funds from national government, municipalities must be able to show that the companies they use to provide services of water and sanitation are efficient and accountable.

We have also passed legislation to ensure that water and sanitation is the number one priority for local government. No application for funds that comes from a mayor will even be considered unless that municipality can demonstrate that it is focused on the modernisation of water and sanitation companies, on the treatment of water for

human consumption, on the provision of adequate sewerage and aqueducts, and on the treatment of human waste. If it cannot show properly costed and managed action on all of these fronts, then there will be no money from central government for the paving of roads or the building of sports stadiums.

Most of those lacking water and sanitation live in small rural towns and villages, beyond the reach of the urban private utility companies. In these rural areas almost all the organisations that provide basic services are community based councils or co-operatives. Most lack the technical and managerial capacity to operate effective services.

With the aim of increasing coverage and quality of service, the government is advancing with a radical plan to create 184 community-owned micro-companies dedicated to providing services of water and sanitation. Properly trained and regulated by the government, these micro-companies are an effective means of reaching people with sustainable, high quality services, of allowing communities to manage and supervise the provision of their own water and sanitation.

**'If local government cannot show action on water and sanitation, there will be no more money for the paving of roads or the building of sports stadiums'**

Small municipal service providers or micro-companies clearly need support to help them manage water and sanitation systems. One mechanism we have devised to provide this help are committees, formed by specialists in the field, which meet with local micro-companies to provide training in managerial

practise and offer technical assistance. Participants might include specialists from the regional government, from NGOs, from private enterprise, and from universities.

In order to guarantee equity and sustainability of services provided by private enterprise, we are forcing municipalities to establish Local Solidarity Funds for the Redistribution of Income. These are local finance agencies which collect fixed contributions from those with the highest incomes and use that money to subsidise services to the poorest families. Through targeting subsidies, the Solidarity Funds are making sure that even those on low incomes are able to pay for water and sanitation. This in turn ensures that the private utility companies can remain solvent and provide a sustainable service. Again, the establishment of Solidarity Funds has become a pre-requisite for releasing any money to municipal government.

Reformed and regulated water and sanitation companies, supported by Solidarity Funds, are providing Colombia with a local management capacity which is more efficient and less vulnerable to abuse than municipal government. We are now close to the point where central government will bypass the municipal authorities and transfer the cash directly into the accounts of the Solidarity Funds and the micro-companies that are actually operating the services.

For too long, Colombia has been spending money on treating diseases that could have been prevented by adequate water and sanitation. Finally, the government is starting to assert its legitimate authority: new laws, new initiatives and new methods of managing these services are going to break the grip of those corrupt and contemptible individuals who have spent years getting rich on the profits of water and sanitation. ■



**BETTY SOTO** IS A DOCTOR WHO HAS BEEN INVOLVED WITH WATER AND SANITATION PROGRAMMES FOR TWO DECADES. SHE HAS WORKED WITH THE INDIGENOUS PEOPLE OF THE BOLIVIAN ALTIPLANO, DEVELOPING A STRATEGY TO INVOLVE THEIR COMMUNITIES IN THE YAKUPAJ INITIATIVE. THE PROJECT PIONEERED AN APPROACH THAT WAS LATER USED TO BRING BASIC SERVICES TO MORE THAN 1,000 OF BOLIVIA'S POOREST RURAL SETTLEMENTS.

SOME FIFTEEN years ago, I was asked by the Ministry of Health to analyse the failure of a water project in rural Bolivia. Hundreds of villages had been provided with wells and hand pumps which had rapidly fallen into neglect.

In the villages, I straightaway found that the foreign-made pumps were missing key components, and were impossible to dismantle and maintain. It was a classic case of a top-down, supply-driven programme which had collapsed because of a failure to respond to people's needs, knowledge, capacity, and priorities.

It was this failure that, finally, forced the government and its partners to acknowledge that simply installing hardware has no impact whatsoever on public health. A new initiative, known as the Yakupaj Programme, was launched in the hope of pioneering a more effective approach to water and sanitation.

The technological challenge was quickly met by the manufacture, in Bolivia, of a simple manual water pump. With minimal training, the pump could be dismantled and reassembled by one woman and a child helper. We named it 'Yaku' – meaning 'water' in the Quechua language.

The social barriers proved harder to overcome. Any development project must be able to count on the support of the population, but traditional rural societies can be suspicious of outside interference. We were helped by the involvement of NGOs that were already trusted by the communities. It is vital that water and sanitation projects work with organisations that are known and respected by the people. They don't need to be specialists in the field of water and sanitation – it's more important that they are sympathetic to the spirit and approach.

### Pressing needs

Once lines of communication are open, the first challenge is to generate demand. For the indigenous communities of the Altiplano, who are among the poorest in the country, water and sanitation come a long way down the list of priorities. At the top are things which people believe will have a direct impact on family income. Improvements to irrigation and agriculture, livestock, transport, and electricity – all these are seen as more pressing needs. 'Hygiene' and even 'health' can remain fairly remote and abstract words, ideas that seem to bear little upon the pressing problems of everyday poverty and everyday life. It is therefore essential that community meetings try to build a clear, practical understanding of the link between hygiene and health, health and productivity, productivity and income.

**'Irrigation and livestock, transport and electricity – these are seen as more pressing needs. 'Hygiene' and even 'health' can be remote and abstract words'**

We also found that creating demand depends on presenting the programme as an option that must be paid for. At the first community meeting, in which the basic design of the Ventilated Improved Pit Latrine and the Yaku water pump was explained, we stressed that this was being offered only to those families who wanted it and who were prepared to help with both the costs and the work of installing the system. Out of a total of \$200 for each pump, we asked for a 10% cash contribution up-front. The labour involved in digging wells, pits and ditches was valued at 30% of the total, and the remaining 60% was paid for from outside by the project partners. Since the 10%

cash payment was beyond the reach of the poorest villagers, we made it possible for as many as five families to share a single pump. But in order to avoid any suggestion that this was a 'public' facility, we always referred to it as a 'multi-family' pump.

**'In a world made of mud-coloured adobe houses, the white-painted latrines were seen as too clean'**

Some time after this initial proposal had been made, a second and smaller meeting invited the community's most influential figures to discuss the proposals in more detail – representatives of the agricultural union, village elders, midwives and health-centre staff. These are crucial players in the task of building understanding and support. Without the expressed backing of these senior figures, a project will always find itself struggling against the will of the community. It would be difficult, for example, to secure the participation of women in hygiene education workshops without first having the permission of these established leaders.

After a year of patient work, building demand and encouraging participation, between 80% and 100% of families chose to install a Yaku pump. About 50% decided to build a latrine as well, rising to about 70%, as the latrine idea spread from one family to another.

Those who chose to be part of the scheme got involved in every stage of its planning and construction. Community acceptance of the cost was made possible by the creation of elected, community-level groups who were trained to oversee the operation and manage the finances. It is these groups, known as CAPYS (Comité de Agua Potable y

Saneamiento) who charge the monthly fee for the maintenance and eventual replacement of the system. Ten years after the end of the Yakupaj Project, the systems are still functioning and 96% of families are still paying the monthly service costs to their local CAPYS.

### Setbacks

More than a year of patient, skilled social work went into building the trust, demand, and community participation that made this project a success. Despite all these efforts, there were still some difficulties that needed to be resolved.

One year after the installation of the latrines, the follow-up team found that many of the women and children were not using them. Investigations identified the problems. To begin with, in a world made of mud-coloured adobe houses, the white-painted latrines were perceived as too clean for their intended purpose. Children under the age of five were frightened of falling into the pit. Women considered the ever-present flies to be malignant, disgusting creatures. And they were reluctant to expose their vaginas to a corresponding hole in the sacred mother earth or 'pachamama', lest it blow an evil wind up them.

**'On the high, cold, sunny Altiplano of Bolivia, the result of more frequent washing was the chapping and cracking of hands and faces'**

The colour was easily changed. But the other cultural problems made these particular latrines an unworkable solution, and we had to change technological tack. Pits were changed to septic tanks, and existing water-sealed toilets were adapted so that they could be

**'We're suffering from a ribbon-cutting culture which encourages each new mayor to launch his own project alongside the defunct and abandoned systems built by his predecessors'**

manually flushed with as little as two litres of water, instead of the standard five. The move away from pits to water-sealed facilities succeeded in getting women and children to use the toilets.

There were also difficulties arising from the campaign to improve hygiene. On the high, cold, sunny Altiplano of Bolivia, the indigenous communities wash their skin very infrequently. Encouraged by the Programme, some women had started to wash themselves and their children more often. The result was the severe chapping and cracking of hands and faces. Eventually, health professionals and local healers developed a skin cream, based on herbs and llama fat, that could easily and cheaply be replaced by the community themselves.

### Prestige

The Yakupaj Programme pioneered a strategy for reaching geographically and culturally remote communities with effective, sustainable systems of water and sanitation. But despite all that we've learned, this country is still building latrines that no-one ever uses, still building ill-thought-out water systems designed without any community involvement.

And it is still suffering from a political culture in which mayors favour expensive and highly visible programmes in the belief that this will confer vote-winning prestige upon themselves – a ribbon-cutting culture which encourages each new mayor to launch his own project of water and sanitation alongside the two or three defunct and abandoned systems built by his predecessors.

In areas of low population density, a ditch, periodically filled in, can be a satisfactory and safe solution for the disposal of excrement and the improvement of public health. But a ditch doesn't classify as a 'sanitation solution', and

therefore doesn't count towards the meeting of government targets. Moreover, it doesn't qualify as a big, flashy, vote-winning piece of infrastructure of the kind so favoured by politicians.

**'Achieving water and sanitation goals requires a level of expertise and continuity that is simply not provided by the short-term and ill-informed framework of politics'**

So why are we still not learning from past mistakes and past experience? In part, because each new government appoints its own people, with their own ideas and their own political allegiances, to the key jobs in the sector. These people are not experts – often they know nothing about water and sanitation, and have to start learning from scratch. You work with them for a year or two and then they move on, and you have to start all over again. What we need here is an institutionalised means of ensuring that our cumulative understanding of water and sanitation, built up over decades of patient research and field-work, is accessible to the politicians who are planning strategies and controlling funds. Bolivia needs a permanent body of experts who can act as consultants in the field; an interdisciplinary task-force of economists, engineers, health professionals, and social workers who are familiar with the advances of recent years, and who have a good grasp of new social and technological approaches to the problem. Achieving water and sanitation goals requires a level of expertise and continuity that is simply not provided by the short-term and ill-informed framework of politics. ■



**ROBERTO BIANCHI** IS CHIEF EXECUTIVE OFFICER OF THE WATER COMPANY *AGUAS DEL ILLIMANI* IN THE BOLIVIAN CITY OF LA PAZ. HERE, HE ARGUES THAT IF THE RIGHT GOVERNMENT POLICIES ARE IN PLACE THEN PRIVATE COMPANIES CAN HELP PROVIDE LOW-COST SERVICES ON A LARGE SCALE – AND STILL MAKE A PROFIT.

THE 'CONDOMINIAL' pilot water and sanitation scheme in El Alto, in which we participated, has attracted a lot of attention from development people. It was a valid project, and I've no doubt that lessons were learned. But let's be clear about this: most of the people who actually live in El Alto have never even heard of it. It barely scratches the surface of the sanitation problems faced by the city. It affects no more than a few thousand families, and represents no more than 5% of the work we've been involved with over the last five or six years.

I'd prefer to talk about what has been achieved by the day-in, day-out work of this company, and I'd like to start by making clear the scale of the challenge that we are dealing with.

Twenty years ago the city of El Alto did not exist. It was marginal land beyond La Paz, occupied by the first informal settlers from the struggling countryside and depressed mining towns of Bolivia. Fuelled by a prolonged economic crisis in rural areas, El Alto grew at the rate of something like 8% or 9% every year, until, by the nineteen nineties, the capital found itself side by side with a city of several hundred thousand people – a city with almost no infrastructure of public services whatsoever.

**'Everyone – even the poorest – has to pay for these services. Free services are never well managed or maintained'**

Faced with sudden and massive demand for basic services the government tendered the contract for the provision of water and sanitation with a single objective: to make good, as fast as possible, the huge shortfall in access to these services. *Aguas del Illimani* offered to connect more people to water and

sewerage than any of its competitors, and on that basis alone we won a thirty year contract to provide services to a huge area of El Alto.

**'Our clients in El Alto pay only five Bolivian cents per day for their water – seven times less than the cost of a loaf of bread'**

In the first five years we have achieved total, 100% coverage in water supply to the area covered by our contract. To do that we have installed connections to 133,000 homes, providing good quality water to those people 24 hours a day. In sanitation we are also on course to meet our targets: so far, we have connected 60% of the homes within our remit to sewers, nearly doubling the number of connections that existed in El Alto at the starting point in 1997.

#### **Everyone pays**

Everyone – even the poorest – has to pay for these services. Free services are never well managed or maintained, and in the end it is the poor who lose out and end up paying more for their water. But we have managed to keep the price down. Six years after the start of the contract, we are still working within the prices originally set and will do so until 2006 – that means ten years of heavy investment, improved quality and massively extended coverage, without charging people any more than they used to pay. The price is among the lowest that domestic users anywhere in the country pay for water and sanitation. 97% of our clients in El Alto pay only five Bolivian cents per day for their water – seven times less than the cost of a loaf of bread. Despite the low cost of services, *Aguas del Illimani* is a self-sufficient, solvent business.

*Aguas del Illimani* is showing that a private company, working within a price structure that even the poorest can afford, can meet the objective of universal coverage in a more efficient way than public companies ever can. Unlike the state, which has a tendency to invest in the construction of ambitious projects without any thought for how they are to be operated over the long term, we are also maintaining the system in an efficient, sustainable way.

But it is important to recognise that private enterprise is not a panacea – there are things that we cannot do for the simple reason that it would not be profitable. There are communities, for example, living at the very margins of this and other cities, way beyond the existing networks of water and sewerage. That situation requires the construction of expensive primary infrastructure over long distances – and that clearly doesn't square with the interests of private business. We can't finance that kind of infrastructure and then ask the customers to pay for it.

**'There is a clear gap between the interests of this business and the needs of the people that live out there – a gap that can only be bridged by government'**

So there is a clear gap between the interests of this business and the needs of the people that live out there – a gap that can only really be bridged by government stepping in to build the primary infrastructure that will not be charged to the user. Once the state has done that, we might well be able to take over the task of connecting families to the network and operating the service in a reliable, transparent, efficient fashion.

The government is also in a position to lay down the rules and regulations within which private enterprise has to operate. And if it wants to, it can weight those regulations in favour of the poor. The pilot project which we helped to operate in El Alto provides a good example of how this might work. It was an attempt to establish a new technological norm in Bolivia which would enable poor communities to build and maintain sanitation systems at very low cost. The technology works well, costs less to install than conventional sewerage, and can be easily maintained by the community themselves.

**'People want the same type of sanitation as those who live in the city centre or in the first world'**

In Brazil the government got tough and passed legislation to the effect that all new sanitation projects have to use this 'condominial' technology. Here in Bolivia, the government has left both private businesses and customers free to decide what kind of system they want to install. And we're finding that people, even in the poorest neighbourhoods, are choosing to install conventional sewerage systems despite the higher cost. Often this decision is based on nothing more than the suspicion that 'alternative' solutions might be second class solutions. They fear that it might devalue their house. People want the same type of sanitation as those who live in the city centre or in the first world.

#### **Companies and communities**

There is no doubt that at a global level, condominial systems of sewerage could reach many, many more people than conventional

**'This company is an example of just how far private enterprise can go in meeting the huge need for sanitation and water in the cities of the developing world'**

systems, without requiring any more investment. And this company has no problem with the alternative solutions – in fact, it makes no difference to us in terms of profit. But at the moment we need explicit authorisation from a community in order to go ahead with a plan using alternative technology. As long as the government lacks the will to make alternative solutions into the legal norm for this country, we have to keep offering the conventional type of sanitation that our clients choose. Even when it is not in their own interests.

The private sector is also willing to learn from the strategies pioneered by government projects, NGOs and international agencies. The El Alto pilot project was crucial in showing this company that engineering must be backed up by a drive to get people involved in the planning, building and operating of their own water and sanitation systems. We now have people on our works team with a background in social and community work, and they are taking on the task of educating the community, generating popular demand for the services and building participation in the planning and construction of the systems. This is a good investment of time and resources, since it has clearly been shown that a strong social and educative programme generates a much higher uptake on the services being offered. It also helps to create a sense of ownership among the community which means that the networks get properly looked after. We have found that there are far less blockages and leaks in the systems which we installed with the active participation of the community.

Private companies will often lack the specialist experience in the field of social work which has traditionally been the territory of NGOs – but that does not imply any incompatibility of approach. Companies will willingly form

working partnerships with non-profit making schemes, and can learn lessons which may well turn out to improve profitability for the company.

**'Business can work on a scale that corresponds to the enormity of the problem ... with a degree of efficiency and sustainability rarely equalled by the state'**

This company is an example of just how far private enterprise can go in meeting the huge need for sanitation and water in the cities of the developing world. Business can work on a scale that matches the enormity of the problem, and can provide services with a degree of efficiency and sustainability rarely equalled by the state. If governments want to encourage this kind of involvement, then they must set clear rules and regulations for business and guarantee some legal stability to those norms. And they must also understand the limitations inherent to private enterprise. If the goal is water and sanitation for all, then business can make a valuable contribution towards achieving that aim in partnership with governments and NGOs. It cannot be a solution in itself. ■



**MARCO QUIROGA** IS A CIVIL ENGINEER WHO HAS SPENT HIS CAREER WORKING ON WATER AND SANITATION. HE DIRECTED BOLIVIA'S YAKUPAJ PILOT SCHEME, AND WENT ON TO CO-ORDINATE ITS REPLICATION ON A NATIONAL SCALE. HE IS NOW WORKING WITHIN THE VICE-MINISTRY FOR BASIC SERVICES. HERE, HE TALKS ABOUT LEARNING THE HARD WAY – AND ARGUES THAT LOCAL INSTITUTIONS MUST NOT BE LEFT UNSUPPORTED IN THEIR EFFORTS TO EXPAND COVERAGE.

BOLIVIA HAS been working towards the goals of clean water and safe sanitation for nearly forty years – regularly publishing ten-year plans for bringing basic services to those in need. At all levels, it's been taken seriously; water and basic sanitation now gets more government funding than either health or education.

So why, after decades of commitment and hundreds of millions of dollars of investment, do so many people still lack access to clean water and basic sanitation?

The fact is that a huge amount of time and money has been spent on learning how not to do it. Years of investment have been wasted on schemes that were never going to be sustainable – projects which may have been technically valid solutions, but whose operational costs far exceeded people's ability to pay. This is the reason why so many projects failed, forcing us to re-build infrastructure a few months or years after it was first installed.

**'The fact is that a huge amount of time and money has been spent on learning how not to do it'**

Bolivia's best water and sanitation projects such as the Yakupaj pilot of the early 1990s (see the contribution of Betty Soto, page 54), abandoned the old technological focus and turned instead to providing simple, low-cost services that could be run with a minimum of technological know-how. These initiatives were built around the tasks of generating demand, responding to need, and encouraging community participation. And the results were systems of water and sanitation that are still well maintained and gladly paid for by the people who use them.

The Prosabar programme, which aimed to apply the lessons of the Yakupaj pilot at scale, brought water to more than 350,000 rural people and basic sanitation to over 100,000 between 1996 and 2001.

Despite this huge advance, you still come across people who believe that offering cheap alternative technologies to poor communities amounts to treating them like second-class citizens. This is not true. If the community really understands the project and its benefits; if it participates in its planning and construction; if it pays for and operates and maintains the systems itself, then the service is likely to be used and to be sustained.

#### No excuse

After so many years spent struggling with these problems, the successes of the last ten years are really encouraging. But unless we find ways to institutionalise the approaches that work, and to support – socially and technically – the existing schemes, then what look like great results now may yet turn into another disaster.

First, we need to build the technological advances of recent years into the design norms and regulations for the water and sanitation sector. Pit latrines, hand pumps, solar pumps, and solar disinfection of water should come to be seen not as alternative technologies, but as standard options for any water or basic sanitation programme.

But these technological answers, as always, need to be accompanied by social and institutional changes. At the moment, the municipal authorities in small towns don't even know about the initiatives that are being run by national government or international development agencies. There is no excuse for this failure of communication. There are regular meetings which could and must be

used to inform every local government in the country about the latest advances in the field.

Keeping local governments and local service-providers informed is not enough. We have to strengthen their ability to operate, finance and maintain local systems of water and sanitation. Some of these bodies are no more than a handful of community representatives, struggling to run and to fund their neighbourhood service. It is especially important that these organisations are able to respond to any emergency in their system, and, if the problem is too serious for them to solve, that they know where to go for help.

New mechanisms of democratic control might also be useful. We've been thinking that it might be possible for municipalities to employ one or two elected people, for example, to oversee the operation and financing of local services. They could be on hand to offer advice to the service users, and to report any problems in the running of the system to the local municipality. This might strengthen community support for local services, and help the municipality to work in the interests of both the community and the companies that provide services of water and sanitation.

After forty years of work, we have finally started to go to scale with a strategy that works. And the most important thing is that we stick to the combination of technological-with-social support that has already brought sustainable solutions to several hundred thousand poor people. We must continue to reinforce the services that these communities are now running for themselves, and we must reach out, with all the lessons learnt, to those who are still lacking clean water and basic sanitation. We're on the road here and if we can stick to it then we'll reach the *Millennium Development Goals*. ■



**JOEL LUGOLOBI** IS PROGRAMME DIRECTOR AND FOUNDER MEMBER OF THE BUSO FOUNDATION, A UGANDAN NGO WORKING IN RURAL DISTRICTS ON WATER AND SANITATION, FOOD SECURITY, AND HIV/AIDS. SUCCESS DEPENDS, HE HAS COME TO BELIEVE, ON BUILDING THE RIGHT RELATIONSHIPS NOT JUST WITH COMMUNITIES BUT WITH CITY COUNCILLORS – AND ON BRIDGING THE TWO BY ORGANISING TO BUILD POLITICAL DEMAND.

WE STARTED OUT 15 years ago running our own programmes. But we ran into problems with our approach. You go into communities, you start working with the people, you raise expectations, and they begin to think you are a magician who can provide anything they need. When you try to move on to the next community, the people you leave behind don't know how to get on without you. So they start looking at local government to help. But you haven't consulted with local government, you haven't shared ownership and prepared local government to take over the programme. And so it all falls down.

So we revised our approach. Now when we initiate anything we sell it to local government first. Organisations like ours should not be working in isolation, they should let local governments own the process. Nowadays we also work with local NGOs to widen this sense of ownership.

**'In order to get basic needs, communities must make their demands known. They have a right to ask for some improvement as part of the country's development'**

Most important of all is that we work with the communities directly. We train committees, maintenance groups, caretaker groups. And we encourage communities to see water supply as a human right. I hope politicians will not misunderstand us, but we want to make communities understand that in order to get safe water and other basic needs they need to ask government and make their demands known. This is a right for everyone of us! But they have to organise themselves properly to make their demand felt. And our role will continue to be to assist communities in

identifying needs and forming groups to press for their rights. We don't want them to come to town and shout, but we want them to understand that they have a right to ask for some improvement as part of the country's development.

At the same time, we also try to show that communities can do so much to help themselves. Our approach involves communities contributing to the projects, providing local materials, doing the digging, providing labour for construction, and food and accommodation for the project staff.

But at the community level, there is a great need for technologies that reduce the costs of systems, making them less complicated and more locally manageable. I am thinking especially of rainwater harvesting. A tank that costs only \$5 can store 6000 litres of water – water for homes, for irrigation, for livestock. This is technology that people can manage and afford; it provides good water free; it saves women hours of walking and queuing; and it makes communities and households more independent. Rainwater harvesting could be such a fruitful source of water for countries like ours. But we need to look into such technologies more structurally and on a bigger scale.

The other fundamental lesson we have learned from fifteen years work is that you cannot do water and sanitation in isolation. In the early years, we would build a well with a community and five years later it would have dried up or fallen into disuse. Usually, it was because we hadn't paid enough attention to wider issues, the realities of people's daily lives. We realised we needed a broader view. So we built links with other organisations, brought together people with different skills – technicians, environmentalists, people specialising in micro-finance. Now when we build a shallow

well we also look at all these things – agriculture, livestock, soil fertility, income-generating possibilities – trying to relate what we are doing to how people can eat better, or make some extra income. People don't eat water. You can't only look at water and sanitation as a health issue; it has to be looked at in the round and from the point of view of the realities of people's lives.

**'You can build a hundred wells quite cheaply. But what good is it if in ten years time they have run dry or fallen into disuse? It costs more to involve people, but that is the price of a real, lasting change in people's lives'**

Of course we are always told that all this is too expensive. I don't understand people who say this. You can build a hundred wells quite cheaply. But what good is it if in ten years time they have run dry or fallen into disuse? Certainly it costs a bit more at first to invest in involving and informing people, building the links between water supply, sanitation, hygiene, environmental protection, and incomes. But that is the price of a real, lasting change in people's lives. ■



**RONALD KASRILS** HAS BEEN MINISTER OF WATER AFFAIRS AND FORESTRY IN THE GOVERNMENT OF SOUTH AFRICA SINCE JUNE 1999. IN THAT TIME HE HAS BECOME A COMMITTED AMBASSADOR FOR WATER, SANITATION AND HYGIENE – BOTH NATIONALLY AND INTERNATIONALLY. HE BELIEVES THAT THE ‘PSYCHOLOGICAL BREAKTHROUGH’ HAS BEEN MADE AND THAT SOUTH AFRICA WILL MEET THE UN GOALS FOR WATER AND SANITATION.

THE GOVERNMENT of South Africa has said it will achieve universal access to water and sanitation by 2008 and 2010 respectively, and I have no doubt that we’re going to achieve this. Because we not only have targets, we also have policies, legislation, and budgets. And we have momentum – last year alone, for example, we constructed as many new latrines as in the previous seven years put together.

I know there are problems. We have over four million people to reach with respect to clean water provision and over 16 million – or two million households – with regards to sanitation. And we’re going to have to find some additional funding. The current budget for the programme is Rand 350 million per year until 2010. But this is based on a subsidy of Rand 1200 for each household toilet and that figure is now out of date. It needs to be at least Rand 2000. Some people say this is too much, but it still doesn’t cover all the costs and families need to put their own ‘sweat equity’ into the construction if they’re going to have a toilet.

**‘No-one wants to speak about toilets. Until you can break through this barrier, sanitation will always be a battle’**

At the same time as trying to achieve these targets, South Africa is going through a massive three-year programme of decentralisation – devolving responsibility away from national departments like mine to local government. This is an enormous challenge, because you can’t devolve responsibility without building capacity. But for South Africa it’s an essential step. Our constitution requires that local municipalities provide basic services – and for good reason.

Basic services are best managed on the ground, where people know what is and is not being done. And if we in government are going to strengthen our democracy and our governance, then we have no choice but to devolve responsibility. But I repeat that this is not just a question of dumping responsibility on local government; we have to baby-sit this thing through, and the next two to three years are going to be critical.

**‘When there is an informed demand, families get involved and are willing to contribute their ‘sweat equity’ – digging the pits and mixing the cement’**

As part of the hand-holding, we’re trying to pass on to municipalities some of the lessons we’ve learnt over the last few years – lessons about ensuring sustainability, lessons about the importance of hygiene education, lessons about the technical details of ventilated pit latrines, lessons about the kinds of maintenance systems that have been proved to work. (We’re recommending a double-pit latrine system, because we know that it really works. Wherever I go in the rural areas, the feedback is very positive about these toilets.)

So we’re doing everything we can to get local government and municipalities to do the job properly. And our guidelines to the municipalities put a lot of stress on involving the community. It’s essential to educate, and to create demand for safe sanitation. When there is an informed demand, families get involved and are willing to contribute their ‘sweat equity’ – digging the pits for the latrines and mixing the cement. And this makes everything not only more affordable but more

sustainable, and a lot more likely to lead to better hygiene and better health.

We also go further by advocating that communities hire local contractors and small businesses to construct the latrines. And with two million toilets to build in eight years this can generate enough demand to sustain a small village-level business. If we can build up these village-level businesses, then some of them may get involved in providing other services such as home improvements and community amenities, as well as helping to maintain and repair water and sanitation facilities.

Despite all – and we really have tried at every opportunity to argue the case with local government – some municipalities still prefer to go for the quick fix and simply hire a contractor to build toilets without involving the community at all. It is easier and quicker, and means you’re only dealing with maybe one large contractor who just comes and installs zinc toilets and that’s it. But they’re inadequate. I know I’ve tried them. And there’s no involvement or commitment on the part of the community, and no building up of demand and understanding.

**‘When I say I’d like to go to the toilet ... the driver puts his foot flat on the accelerator to get me to a hotel’**

And this issue of creating demand really is the heart of the matter. Almost five years ago, when I became Minister and began visiting villages, nobody ever asked me about toilets. They would ask about water, schools, roads, clinics, electricity – but not toilets. They were never mentioned. And from my experience of visiting other countries I know that this is

almost always true. When visiting rural areas of other developing countries, I always say I’d like to go to the toilet. Invariably, the driver puts his foot flat on the accelerator to get me to a hotel even three hours away, just to avoid my seeing and using a local toilet.

**‘I recently visited a community where a family had painted their latrine in the colours of the national flag. They were very proud of their toilet’**

People are not happy discussing toilets – and that applies as much to government ministers and local authorities as it does to people in villages. It’s partly not knowing how important sanitation is, and it’s partly embarrassment. But the fact is that no-one wants to speak about toilets. And until you can break through this psychological barrier it will always be a battle to get things done.

I think we’ve made that breakthrough in South Africa. People here are now very open about toilets. Schools and communities sing songs about toilets. Local officials are happy to discuss toilets with me or anyone else. And if the President comes with me everyone is happy to show him the toilets too. I recently visited a community where a family had painted their latrine in the colours of the national flag, and when the woman showed it to me she and her neighbours started singing the national anthem. They were very proud of their toilet.

How has this breakthrough been achieved? I’ve tried to analyse this and I think it really did come from political commitment and clarity of vision.

**‘The Government of South Africa will achieve universal access to water and sanitation by 2008 and 2010 respectively’**

We got our wake up call four years ago with the cholera outbreak and it was the strongest possible reminder that clean water is not enough. You need the holy trinity of water, safe sanitation, and hygiene awareness. So we put in place a strategy – including a vision but also including a business plan and a budget – and we began to speak out openly about sanitation, which until then had been very much a Cinderella issue, lagging far behind water supply.

And when we began to speak openly about it there was a response. When senior government people began to speak about it so did the people. People now raise the issue with me wherever I go. And now there is a genuine demand. Villagers ask me: ‘When are we going to get toilets?’

**‘The government has created this pressure for itself ... every village demanded ‘where’s our water?’ Now we’ve done the same with sanitation.’**

So the government has created this pressure for itself. We did it with water. We made it into a political issue so that every village demanded ‘where’s our water?’ whenever a government official visited. Now we’ve done the same with sanitation. We’ve raised the stakes. And it was the right thing to do. As we approach ten years of democracy in South Africa in April we can proudly proclaim this as one of our many achievements. ■



**DAVID OMAYO** IS THE FOUNDER OF *USHIRIKA WA MAISHA NA MAENDELEO KIANDA (UMMK)* OR *SOCIETY FOR LIFE AND DEVELOPMENT*, AN NGO THAT STARTED WORKING WITH NO OUTSIDE HELP IN THE SLUMS OF NAIROBI, KENYA. HERE HE WRITES ABOUT BUILDING UP AN ORGANISATION THAT WORKS WITH THE CITY'S POOREST PEOPLE TO IMPROVE BASIC SERVICES.

OUR COMMUNITY, Kianda, has about 70,000 people. We started our community organisation in 1994, with roughly 30 members, three quarters of them women. We began by collecting garbage and building drains, by telling people about what sanitation means and why it is important to be hygienic.

By 1995 we had built up to between 80 and 100 members. A year later we persuaded some NGOs and the City Council to help us with community mobilisation, exchanging visits with other slums, and organising workshops. Then in 1996-97 we started talking to UNICEF about health services and in October 1997 our Ushirika Clinic opened its doors. The donors paid for the materials, and we put in the labour. At present we have about 300 members, about a third of them active. As well as running the clinic, we still continue with building drains, toilets, and providing water through kiosks. Today we have a lot of partners, and we even get support from the Ministries of Water, Health, and Planning.

In a slum community, households need to clean and maintain their own surroundings. When we go out to talk to the community about this, some households say 'yes', and some say 'no' – that they can't be expected to do this cleaning up work voluntarily, or that they are busy and don't have time. But we tell them that they have to clean their own environment, because nobody else will do it for them. They can't just sit and wait for the *mzungu's* (white people) of the donor organisations, or even the City Council, to come and do it for them. Some people expect a hundred percent help. We say they have to do fifty percent themselves.

A lot of the problems around hygiene, sanitation and health have to do with culture. We tell the people to forget tradition, to become modern. Sometimes you have to

forget about your culture in order to improve your situation. Living in a city slum is different from living in the rural areas where you can go relieve yourself in the field. In the slum you have to have toilets, you have to keep your surroundings clean. Sanitation is a big problem. Most people use 'flying toilets' – plastic bags. We have to educate people that these things cause disease.

**'We tell them that they have to clean their own environment. They can't just sit and wait for somebody else to come and do it for them'**

Each donor wants to come up with its own technology. About a year and a half ago, UNEP came in to help us. They have given us three different, but very nice, toilets with flush, electricity, and steel doors. Also, we now use U-drains. They are more expensive, but smart and easier to manage. We needed a lot of education for the maintenance of the three model toilets. But the main thing is that they wanted to improve the standard of living, and they offered us help, which we gratefully accepted.

We tried to improve sanitation by building other toilets, two in each area, 18 in total, and we laid out drains. It is not enough, but it is a start. For the water, UNICEF provided the materials, mainly the storage tanks, and again we put in the labour. We now have nine water tanks, connected to the council mains, that provide water to the selling points.

So we have the clinic, toilets, water, and drainage. We are helping a lot of people, especially because the clinic charges much lower rates than private clinics – and provides education on nutrition, hygiene, and childcare.

We also organise seminars, to which we invite village elders, church elders, teachers, so that they can go out and educate their communities.

The staff in the clinic get paid for their work. We charge fees from our patients, with different fees for members and non-members of the community organisation. Also, members pay a one-off administration fee of 100 shillings when they join. In the water kiosks, we charge 2 shillings per 20 litres of water. Every water kiosk has a chairman, a secretary and a treasurer, who make sure that the income from the sales covers all costs. Every kiosk also has its own bank account. For the public toilets, households pay a monthly sanitation fee. Altogether, these fees and charges represent our regular income to cover our costs.

We clearly don't have enough facilities in our community, and the population is increasing. We need more toilets, more water points, and more drainage to avoid stagnant water. Even access to get the construction materials into the slum is a problem; the shacks and houses are built very closely together, leaving no space for a truck to deliver the toilet structures or water tanks.

We don't see much of the City Council. They come to connect the water when we have a new tank or water point to be connected, and for that they charge a 3000 shilling connection fee. We don't receive any contribution or medicines for the clinic. We have now made our own garbage collection space, but the Council should at least come and pick up the collected garbage regularly. Mostly, they should come to the ground and see for themselves what we need. ■



**TSEPO KHUMBANE** IS A GRASS ROOTS ACTIVIST WORKING WITH COMMUNITY AND WOMEN'S GROUPS ON WATER, SANITATION AND HOUSEHOLD FOOD SECURITY. SHE IS A BOARD MEMBER OF THE *MVULA TRUST* – SOUTH AFRICA'S BIGGEST WATER AND SANITATION NGO, AND AN ACTIVE MEMBER OF THE COUNTRY'S WATER FOR FOOD PROGRAMME. HERE SHE ARGUES THAT WORKING TOWARDS SAFE WATER AND SANITATION SHOULD ALSO HELP BUILD THE SKILLS FOR SOUTH AFRICA'S DEVELOPMENT.

THE POWER for development, particularly in rural areas, lies within the people. For instance sanitation; the ideal situation would be that popular education on sanitation and hygiene would be internalised, so the issues would be in the mind of every person. There would be reconstruction in minds, not just in infrastructure.

**'The programme has been providing to the wrong people; there are families with two or three toilets in their yard'**

Right now, there are just toilets in the veld. They are not being used; they are just standing there; some for as long as four years already! Children go and play there and break them, and they will probably never be used.

Around most of these unused toilets, there was no process of training the communities or involving them in what to construct and how it all works, on why it is necessary to maintain it. Over the past years many sanitation projects have been carried out by consultants who just want to speed things up. Consultative processes, from their point of view, are a waste of time because they eat into profits. So they count on the fact that others will come in to do things like hygiene promotion. And often the technologies used are completely inappropriate, leaving the women with a heavier work burden than before. All this is a huge waste of resources.

The question is, why do you need to build this way, using these builders and contractors? In my mind, the Department of Water Affairs and Forestry (DWAF) has set steep sanitation targets, and to meet them the municipalities need a quick roll-out. But if you were sincere

and true to the constitution of this country, the sanitation gear up would be a people-driven process. And then it would also be about empowerment and skill-building; it would support and strengthen women; and it would be seen as a major, sustainable, critical investment into the power of the country.

We need NGOs and community based organisations to work with the people in the villages, plan with them, train them, so that they can build their own structures. Municipalities can distribute building materials, and make sure that communities will not simply take the materials away. Households would be enabled to participate. Unless that is done, we are not going anywhere. And corruption will remain rampant. For example, the current subsidy programme for sanitation is supposed to support the indigent; but the programme has been providing to the wrong people; there are families with two or three toilets in their yard!

**'Right now in South Africa we have a dependency syndrome. We have blocked creativity. Even the poorest people used to build innovative structures using their own resources and environment'**

We also need to confront the fact that right now in South Africa we have dependency syndrome. We have blocked creativity. Even the poorest people used to be able to build very innovative structures within their resources and environment. The situation, with migration and the restrictive laws in the old South Africa, meant that people were very restricted. They were not sure what they were

allowed and supposed to do, and started to look at government to provide for them. People said to government: 'Here I am. I've given you my eyes, my hands, my everything, now you need to tell me what to do.'

**'The way we deal with communities right now, we are undermining their intelligence, their dignity, their capability, and their innovativeness'**

If we are really going to make a difference, we need to change that attitude – with no making use of consultants if skills and capacity could be found and developed within the community. Because the way we deal with communities right now, we are undermining their intelligence, their dignity, their capability, and their innovativeness. ■



**DOMINIC KAVUTSE** IS UGANDA'S PRINCIPAL ENGINEER FOR URBAN WATER SUPPLY. WORKING DIRECTLY WITH URBAN WATER AUTHORITIES AND WATER AND SANITATION COMMITTEES THROUGHOUT UGANDA, HE HAS BECOME CONVINCED THAT THE EMPHASIS ON 'RURAL' OR 'URBAN' PROVISION MISSES OUT A VITAL ELEMENT. BASIC SERVICES IN SMALL TOWNS, HE ARGUES, ARE AN IMPORTANT PART OF NATIONAL DEVELOPMENT EFFORTS.

DEVELOPMENT efforts tend to be focused on the cities or on the rural areas. Medium sized towns fall in between and are almost always neglected. I am talking about towns of between 5000 and 50,000 people, and also of so-called 'rural growth centres' with populations of 3000 to 5000. In Uganda, about 2.5 million people live in towns or rural growth centres, and the numbers are growing.

The way I see it, these areas can be catalysts for development. This is where you'll find small industry, schools, hospitals, administration and political leadership, the markets, commerce and trade. These are the real centres of rural economic development.

We can't stop urbanisation; its part of development. But urbanisation doesn't have to mean just more and more people migrating to the big cities and creating problems of enormous proportions. Surely it would be better to focus on making it more attractive to migrate to the small towns and rural growth centres. That is where there are still opportunities, there is land, there are options for housing, and there is food available from the surrounding rural areas.

**'We believe in yard connections. It sounds like an expensive option. But you have to consider that maintaining public stand pipes can be more expensive'**

The best way to develop the appeal of small towns is by increasing their quality of life and economic revenue. And for this, water is key. What we need to do is develop piped water schemes in all of the small towns, preferably with yard connections. Of course rural areas

need services as well. But for maximum impact on poverty and for cost effectiveness, you are better off serving a larger number of people living in a relatively concentrated area.

**'The reason they are working so well is that the private sector operators are responsible for revenue collection'**

We have shown that this can work. Already, piped water systems have contributed to visible development in more than 50 small towns. At present, 86 others still depend on boreholes, natural springs and surface water sources that are usually inadequate. Of the 200 rural growth centres in Uganda, approximately 20 now have improved water services. In these 55 small towns and 20 rural centres, there is one connection per 70 people, all within a relatively short distance.

We believe in yard connections. I know this sounds like a high level of service, and seems like an expensive option. But you have to also consider that maintaining public stand pipes or water kiosks can actually be more expensive, since every stand post or kiosk needs a caretaker. Even in absolute terms it is often cheaper to have yard connections where the families themselves are the caretakers, instead of kiosks or stand posts with paid caretakers. Also, one yard connection will provide water to many families. And we try to promote very simple systems. The first option is a gravity system fed from a natural spring. If that is not possible we look into borehole pumping. The third option is river pumping. Most of the pumping is done with electric pumps, but we are also looking into the use of solar and wind pumping to reduce the costs.

As for costs to the people, they are already spending a lot of money on water, often of very poor quality. Either they buy it from a water vendor for high rates, or if they have to go to a distant source they may have to pay somebody to collect the water. When they are connected to a piped water scheme, on the other hand, they will pay a monthly tariff set by central government in consultation with local governments.

I realise that not all families can afford this service. But the fact is they would have difficulty in paying for lower levels of service as well. The only answer is a system to subsidise these poorest families. Unfortunately, such a system does not yet exist.

**'So far it seems that the really small companies, with just a handful of employees, are the most effective. It is also noticeable that successful companies are often ones that have women in positions of management'**

The operation and management of these small town water schemes used to be the responsibility of central government, and it was a disaster. Then, with Uganda's decentralisation and all the subsequent reforms, it became the responsibility of local governments, and it was an even bigger disaster. Now the government has decided that operation and maintenance should be in the hands of the private sector (except for the more remote rural areas), and so far it is very successful. At present, 25 of the small town schemes are run under a Private Sector Partnership (PSP) scheme. The longest-running PSPs have been operational for two-

to-three years now. And the reason they are working so well is that the private sector operators are responsible for revenue collection, and they have a huge incentive to keep the schemes functioning.

**'Providing better services can stimulate economic growth at the local level. And economic growth also makes it possible to provide better services. That's the upward spiral we have to aim for'**

Wherever possible, we promote the use of small local companies. They do not even necessarily have to be companies with experience in running a water scheme; they could also be construction companies with a track record of effectiveness and good customer relations in their own locality. Because they are small they do not have high overheads, and probably because they are local they seem to be good at customer relations and cost recovery. In most of the schemes, the cost recovery rate is almost 100%. So far it seems that the really small companies, with just a handful of employees, are the most effective. It is also noticeable that successful companies are often ones that have women in positions of management. Our best small town scheme, for example, is run by a three-person company managed by a woman. It serves the small town of Busembatia with 150 water connections, and so far the company has been able to save 1.5 million Ugandan shillings out of revenues.

The idea we are trying to make work here is that the private operators give 15% of their revenues to the local councils who set this money aside for extensions and major repairs.

**'Surely it would be better to focus on making it more attractive to migrate to the small towns and rural growth centres'**

The principle is that the private operators are responsible for day to day operation, maintenance and minor repairs with the local council being responsible for the major repairs. However this principle is not yet functioning quite the way it should.

We're obviously aware that private operators will put their commercial interests first, and that we have to be careful about this. But through a careful tendering and selection process, followed by extensive training (on a range of issues from construction, quality assurance, and customer relations to operations and management) we are able to strike a balance. This is not left to chance. We draw up very clear contracts that are pro-poor, and with proper monitoring and quality control by the local government we can ensure that by and large they will provide a good service to all customers.

Finally, by using small, local private operators, this way forward also creates extra jobs. And that's basic. Providing better services can stimulate economic growth at the local level – and not just in the big cities. And economic growth also makes it possible to provide better services. That's the upward spiral we have to aim for; and engaging the small, local private sector enterprises in service provision might be the way to achieve just that. ■

**'Making funds available is one thing, but we must also make sure that we have the local level capacity in place to absorb those funds'**



**GILBERT NKUSI** IS UNICEF PROGRAMME OFFICER FOR WATER AND SANITATION, BASED IN ANTANANARIVO, MADAGASCAR. HE HAS LONG EXPERIENCE OF WORKING WITH BOTH GOVERNMENT AND CIVIL SOCIETY AND IS A MEMBER OF THE MADAGASCAR 'WASH' COMMITTEE. HERE, HE ARGUES THAT PROGRESS TOWARDS WATER AND SANITATION GOALS DEPENDS ON DECENTRALISING RESPONSIBILITY FOR BASIC SERVICES WHILE AT THE SAME TIME BUILDING UP THE CAPACITY OF LOCAL GOVERNMENTS.

IF WE ARE really serious about wanting to achieve the water and sanitation targets that Madagascar has set itself, if we really want to make a sustainable difference, we need to focus mainly on one thing: technical capacity building at the local government level.

A lot has changed in Madagascar over the past year in terms of political commitment and priority for water and sanitation – and not just at national level. This is hopeful. But just setting new goals and putting in a lot of effort is not enough. Look at the 'Water Decade'; a lot of effort was put into increasing coverage figures over those ten years, but very little actually came of it. There is a risk that the new UN goals might end up the same way, unless we ask ourselves the question: why were none of the previous efforts really sustainable? And the answer is: because the structure and the capacity to support and sustain them was not there.

**'A lot of effort was put into increasing coverage figures over those ten years, but very little actually came of it'**

The biggest problem is the capacity at commune or local government level. That is where the difference is made. That is where development efforts need to start from. Officials, and elected representatives, need training to be able to identify the needs of their constituencies, and to know how to react to them. Water is a basic human right. They need to know this, and need to know that they can go to the central government and demand a water programme.

But not being aware of the options is only part of the problem. The general educational level of local government staff is very low, causing

great gaps in capacity. There are communes where even the mayor is not educated. What central government should do, at least during the transition phase from centralised to decentralised government, is nominate persons for the elective functions who are reasonably educated and then, while they are in office, ensure there are programmes to strengthen their capacities. The current lack of capacity compromises many aspects of governance at the commune level, including financial management, planning, monitoring, and follow-up.

At the request of Malagasy government, studies have been carried out to determine the progress that needs to be made over the coming years if we are to achieve the 2015 goals for water and sanitation. According to these studies, we need to spend \$60 million per year from now to 2015. Whether or not that money is available is one thing, but just as much of a problem is whether there is the local level technical capacity to absorb those funds. There may be some international organisations like UNICEF and *WaterAid* and some Malagasy NGOs able to spend some of it, but it is local government that needs to know how to spend the bulk of this money. And at present, it doesn't.

**'The new UN goals might end up the same way, unless we ask ourselves the question: why were none of the previous efforts really sustainable?'**

Even at central level, for instance in the Directorate of Water and Sanitation in the Ministry of Energy and Mines, there are not really enough staff. Then at provincial level,

there are maybe one or two technically capable staff with specialised knowledge of water and sanitation. At prefecture and commune level, there is hardly anybody at all. Then at community level, there are now some relatively knowledgeable Village Water Committees or Water User Committees, mostly trained through programmes such as those of UNICEF and the NGOs, and the World Bank – Malagasy project. But that is still not sufficient.

**'It is local government that needs to know how to spend the bulk of this money. And at present, it doesn't'**

In my view, Madagascar needs a decentralisation to empower local levels. Water and sanitation specialist are needed – at provincial level, prefecture, and commune level – to guide, support, monitor and follow-up the village level water and sanitation projects managed by or with Village Water Committees.

Decentralising while building up local capacity is first and foremost a central government task. All organisations such as UNICEF can do is advocate, assist, and to some extent support the government's efforts to put this in place. ■

**'People start to expect free services, or payment for activities that they would otherwise have done for the good of the community'**



**MARIA LUBEGA MUTAGAMBA** IS MINISTER OF STATE FOR WATER IN UGANDA AND AN ADVOCATE OF THE 'WASH' MESSAGE – 'WATER, SANITATION AND HYGIENE FOR ALL' – BOTH AT HOME AND INTERNATIONALLY. RE-AFFIRMING THE UGANDAN GOVERNMENT'S INTENT TO REACH ITS WATER AND SANITATION GOALS, SHE SEES 'DEPENDENCY SYNDROME' AS A BARRIER AND WARNS THAT SOME NGOS CAN PERPETUATE THE PROBLEM.

I DO NOT know whether Uganda can achieve the UN Mid-Decade Goals for water and sanitation, but I do know that the serious intent to achieve them is there. We have a high level of political commitment. And at grass roots level we have gone a long way towards creating awareness of the importance of water and sanitation.

But on the ground there is a lot more to be done, and we do have limitations, finance being the biggest and most obvious. Unless we are able to accelerate economic growth for the country as a whole, the budget will remain our biggest constraint.

But there are other problems that have to be addressed. First, we are becoming too dependent on bureaucratic processes. The tendering process for government contracts, for example, is so complicated and time-consuming that small companies find it almost impossible to compete. Another stumbling block is that too many departments share responsibility for sanitation, so that nobody really speaks for the cause.

But most of all I am worried that we are getting too dependent on money. Nobody wants to do anything for free anymore. At community level, water-users committees and caretakers all want to be paid for their involvement instead of doing the job for the good of the community. It is not even as though these activities are keeping them from other productive, income-earning activities, because before they would have spent more time fetching water from long distances, time being ill, or time caring for sick family members.

This dependency on money is taking away people's willingness to work. Previously, households used to take care of their own toilets because standards were set by law. But these by-laws disappeared, and so it

seems did people's sense of the need for proper latrines and hygiene practices, and also the sense that these things are the responsibilities of the household. We need to reinforce those laws.

Some of the non-governmental organisations working in Uganda have contributed to this dependency syndrome. Although NGOs can be very valuable, they can also be a problem. These days anyone can set up an NGO and start working with communities, without being aware of the long term effects of what they are doing, and often not even being able to finish what they've started. And they tend to increase dependency because they either give services for free or give in to the communities' wishes for remuneration. So people start to expect free services, or payment for activities that they would otherwise have done for the good of the community. This is not a good development. People need to be willing to invest in improving their own situation, including building their own latrines, instead of sitting back and expecting government or NGOs to provide everything for them.

**'Some of the non-governmental organisations have contributed to the dependency syndrome'**

For me the heart of the matter remains creating demand for water, sanitation and hygiene, plus working with people and communities to show them how to improve their services and latrines, so that they will understand the why and the how, and be able to continue improving their systems by themselves, without government or NGOs.

We also need an independent monitoring system. At the moment, we send money to the

districts for monitoring. But since many councillors also seem to be involved in running the businesses that carry out the construction work, they cannot be expected to monitor themselves objectively.

One way in which we are trying to put some of these ideas into practice is the 'WASH' campaign in Kampala. Since it began in July 2002, 'WASH' has set up 200 new water kiosks in the informal settlements. We also installed many yard connections, where the owners will act as caretakers and sell water to their neighbours. Both are examples of little businesses, where providing a service is combined with making a little money. And most of these little businesses are run by women.

The biggest problem of all is getting initiatives, activities, and policies implemented at grass roots level. As with the 'WASH' campaign, too many initiatives are limited to Kampala. While it makes sense that many ideas and programmes originate here, this is not where development will really happen. We need to ensure that districts, sub-counties, parishes and communities, all have access to the same means, initiatives and knowledge as exist in Kampala. We need to truly decentralise.

We have broken down the goals into time periods, and we are on line to achieving our targets for 2005. But of course you have to bear in mind that in Uganda we are defining 'coverage' as a safe reliable water source no more than 1.5 kilometres from the home. In other countries, the definition might be 'within 400 meters'. If we were to apply this standard our level of 'coverage' would drop dramatically. If you want to make international comparisons, you have to have standardised parameters. ■

**'International organisations need to recognise that they cannot just work with government and assume the job will be done'**



**JOSIAH OMOTTO AND JOHN NYACHIEO** JOSIAH OMOTTO IS EXECUTIVE DIRECTOR, AND JOHN NYACHIEO PROGRAMME ENGINEER, OF MAJI NA UFANISI (WATER AND DEVELOPMENT), A KENYAN NGO WORKING ON WATER AND SANITATION WITH THE SLUM COMMUNITIES OF NAIROBI. HERE THEY ARGUE FOR AN 'ENTERPRISE APPROACH' AND WARN AGAINST THE IDEA THAT INTERNATIONAL AID SHOULD WORK ONLY WITH GOVERNMENT.

IN NAIROBI, water used to be delivered by the City Council and people got used to the idea that it was free. But as the slums and shanties grew, water services failed to keep pace and the system broke down. To try to fill the gap, lots of projects have been started by NGOs, by community organisations, and by small-scale entrepreneurs trying to provide or sell water to meet the growing demand.

At one extreme we have water vendors charging people astronomical prices – ten times more than the middle classes are paying for City Council provided mains water supply.

At the other extreme we have NGOs and community organisations still trying to provide water at subsidised rates – not realising that you have to have a regular budget for repairs and maintenance and for expanding the network otherwise it cannot be sustained.

Out of all this the realisation has slowly come that you have to adapt innovative commercial principles to poor urban communities. You have to value water, manage it, conserve it, and generate income from it – but in a fair way and without exploiting people.

**'You have to value water, manage it, conserve it, and generate income from it – but in a fair way and without exploiting people'**

On pricing, we are looking at the possibility of a single flat-rate for water that makes it affordable to everybody while allowing the provider to make a living and to expand. Failing that, we need competition to keep prices down and stop cartels of water-kiosks from overcharging. We've seen this in practice – community organisations starting their own water-selling schemes with NGO support and forcing the vendors to bring their prices down.

But it doesn't work unless the alternative source of supply is dependable. The community-based organisations that we support have storage tanks so they can keep supplies and prices constant, though some of them have had to create 'water-pipe vigilance patrols' to stop other vendors vandalising the tanks.

**'City Councillors like to be seen 'providing' services to their constituents'**

We also support an enterprise approach to sanitation in places like Kibera, Nairobi's biggest slum, where there were on average about 300 households for every latrine. Private household latrines are not really an option. We support area-based community organisations (called Ushirika Usafi groups) to design and build ablution blocks, usually with 8 bathrooms and 16 latrines. They're managed by community-based organisations who decide on a user fee (either a flat-rate per family per month or on a pay-as-you-use basis). With the revenue, they employ a caretaker, and pay for repairs and for connection to mains sewerage.

Most of these community-based organisations rely on volunteers. But we're trying to move away from this approach to put things on a more dependable basis. The approach we favour could be summed up as 'companying the urban poor' – making the members of the community-based organisations into stakeholders who share any dividends but who also have business plans and profit-sharing schemes based on a mutually agreed written 'constitution'.

As part of the enterprise approach, we also train artisans in constructing water and sanitation systems. These skills are now in the

community, and it means that the local government and other neighbourhood groups can contract community-based organisations to build water and sanitation facilities (which is much cheaper than using established private contractors). We've also pioneered the idea of LANGO (Local Authority – NGO cooperation) so that NGOs can work with the City Council to support small-scale private entrepreneurs and community groups to improve water and sanitation. Of course there are all sorts of political problems with this; City Councillors like to be seen 'providing' services to their constituents. Some of them also like to use their own favourite contractors. I'll leave you to guess why.

But in general the City Council has been supportive. For example they have, with the support of UN-Habitat, helped to introduce Vacutugs into the slums (small, manoeuvrable pumps for emptying pit-latrines).

Following recent elections in Kenya which ushered in a more enabling governance, a growing number of international aid programmes are now moving away from supporting NGOs that deal with water and sanitation, preferring to work with government instead. But international organisations need to recognise that they cannot just work with government and assume the job will be done. NGOs are managing about 60% of the water systems here. And the entrepreneurial and commercial skills, the commitment to sustainability, reside more with the communities and the NGOs. This is the difference between our approach and the government's – we don't use our staff to implement projects but rather to enable people and communities to do the job themselves. Kenya's record in water and sanitation would be very different if everybody pursued this enabling approach. ■



**QUEEN MOKHABELA** HAS LONG EXPERIENCE OF BOTH COMMUNITY ACTIVISM AND LOCAL GOVERNMENT IN SOUTH AFRICA. SHE CHAIRS THE SEKHUKUNE LAND DISTRICT MUNICIPALITY, IN THE RURAL NORTH-EAST OF THE COUNTRY, AND IS A MEMBER OF THE NATIONAL WATER ADVISORY COUNCIL. TRAINING THE LEVEL OF GOVERNMENT CLOSEST TO THE PEOPLE, SHE BELIEVES, IS CRITICAL TO THE SUCCESS OF COMMUNITY-BASED APPROACHES TO WATER AND SANITATION.

I AM CONVINCED of two things. One, we cannot improve water and sanitation services without a truly people-centred approach. Two, we need a much bigger role for women. We cannot keep taking decisions on their behalf. Too often they are not involved in planning. But they are ultimately the ones to maintain the toilets. I also don't see any reason why women could not build the toilets. If they build them they will be proud of them, and at the end of the day they will know how and why they have to manage, maintain and clean them.

**'The technology brought does not fit the needs of our rural people, does not improve their standard of living, and is not money well spent'**

As for a people-centred approach, this is not only necessary for the communities concerned but also for local government. South Africa is in the middle of a transition process, transferring all responsibility to local government. We Councillors are not at all sure how this will work. Understanding of the technologies that are brought to us, especially by the consultants, is lacking. They explain in massive detail and use very beautiful language that impresses Councillors, yet what is important to the consultants is the money that will slip into their pockets, not helping the people. So you find that the technology brought does not fit the needs of our rural people, does not improve their standard of living, and is not money well spent. This process does not improve the understanding and capacity of the Councillors, nor that of the community.

But things are improving. Before the transition, the municipality did not even know about the

**'We should have a monitoring system in place that looks not only at how many toilets have been built, but at whether they are being used'**

projects that were being implemented in the communities. Now, consultants or organisations who want to implement projects have to go through us, so that we can introduce the consultants to the community and oversee the processes. From 2004 the budget will also be allocated through the District Municipalities (DMs). So from then on we will also have more say over how, and with whom, we want to spend the money.

I have a real problem with consultants. They consume a lot of money, for a relatively small number of toilets, and do not assist households a lot. I much prefer to work with NGOs and community organisations. They are close to the people and they know how to work with them. They are not in it for the money, but for the people, and they feel that the community should be informed and involved.

The idea that in order to create ownership families should contribute is right in principle. But there are families that are so poor, or with family members so old, that they cannot manage to dig the pit, make the bricks, collect the sand. People need to contribute, but not more than they can. That is why we need a good policy for the indigent, and we need people on the ground who can oversee its implementation.

**'Elected Councillors are supposed to do their best for the people. Unfortunately, there are some that hardly go into the community at all'**

I think Ward Councillors are crucial. They represent the level of government closest to the people in the villages. They should listen to their people, and be the ones to translate

needs, demands and plans both ways between local government and community. They are elected and trusted by the community, and they are supposed to do their best for the benefit of the people. Unfortunately, there are Ward Councillors who hardly go into the community, and the quality of Councillors in general is not very good. Not to mention the level of corruption that is still around. We are looking at how to change that, but we need a serious process of moral regeneration in this country. Before anything else can be done, we need to rebuild human values. Because we face too much corruption, and too little work done for the good of the community.

**'Toilets in the veld', used by nobody and falling into disrepair, have nothing to do with real development'**

This is also why monitoring is so important. We should have a monitoring system in place that works all the way down from central government, through district and local municipalities, through Ward Councillors, to the community. And it should not look only at how many toilets have been built, but also at whether they are being used, and whether households understand the need for sanitation and hygiene. Because government can proudly announce that so and so many toilets have been built over the past few years, but if they're all just 'toilets in the veld', used by nobody and falling into disrepair, then that has nothing to do with real development. ■

**'Let's be clear: government holds the ultimate responsibility for the provision of basic services. Government commands the resources that are needed to get the job done'**



**RAVI NARAYANAN** HAS BEEN THE CHIEF EXECUTIVE OF THE HIGHLY RESPECTED NGO *WATERAID* SINCE 1999. TRAINED AS AN ENGINEER, HE WORKED IN INDUSTRY FOR ALMOST TWO DECADES BEFORE JOINING THE NGO SECTOR IN 1985. HERE, HE SETS OUT THE CHALLENGES FACING GOVERNMENTS IF THEY ARE TO SUPPORT NEW APPROACHES TO WATER AND SANITATION.

MANY OF THOSE involved in the debate on water and sanitation are struggling with the question of how governments can best support the kind of local, community-led solutions that represent the best way forward. A serious division has opened up between those approaches which are seen as 'government-led' and those which are judged to be 'led by the community'. For many, the whole situation is now being perceived in terms of a hostile dichotomy between the state and the people.

This is a dangerous position to be in; partly because it weakens the likelihood of constructive collaboration, and partly because it creates confusion about who should be leading the effort to improve access to water and sanitation. So let's be clear: government holds the ultimate responsibility for the provision of basic services. Government commands the resources that are needed to get the job done. Government carries the mandate and the obligation to work in the best interests of the people.

Ideally, there should be no division between 'government approaches' and 'people-centred approaches'. Government should be working to catalyse, promote, co-ordinate, support and supplement the steps being taken by communities themselves. In most areas of the developing world, this kind of harmony is just not happening. All too often, government policy, plans and finance have become totally detached from the priorities and interests of the people that they serve.

So what exactly is going wrong? What can we do to re-align the efforts of the state with the efforts of the community?

One of the central problems is the failure on the part of governments to understand the

principles that underpin the success of NGO and community-led programmes. They can see that a project has worked – and sometimes they are even willing to adopt it, chapter and verse, as the new government 'policy'. What they don't see is that the project only worked because it was tailored to fit a particular set of circumstances.

**'When figures and targets skew a programme, it is often the poorest who pay the price'**

Solution A cannot be transplanted without modification and expected to deliver in situation B. Unless the underlying principles are fully understood, the government will not be able to think out intelligent and sensitive ways of adapting it to a different cultural or geological setting. This ability to develop local solutions in response to specific circumstances is the one universal hallmark of successful interventions – and it is also the reason why no particular model can be 'accepted as policy' or 'replicated nationwide'.

This presents a tough challenge for politicians who are accustomed to working with strategies that are centrally managed and applied across entire countries. But it is not a challenge that can be ignored. Since there can be no single blueprint for success, national level policy makers must re-direct their plans and re-deploy their resources in a way that allows local government and local communities to develop nuanced responses to their own problems.

This sounds promising; but here we hit a second major difficulty: municipal governments do not have the kind of skills and understanding demanded by the new approach. Very often they are untrained,

unfamiliar, and even unwilling to work alongside communities in the pursuit of people-led, locally-specific solutions. Any devolution of responsibility and resources must, therefore, be accompanied by a major effort to train and motivate people at the delivery end of operations. Without capable and committed municipal personnel, national government's acceptance of the new approach will have no impact on the ground.

Governments are often under great pressure to show results on water and sanitation; and this, too, is a force that tends to push policy out of alignment with the best interests of the people. When success is measured by the extent of hardware installation, governments fall into a target-driven mentality that can actually work against the achievement of health for all. Obsessed by the idea of driving up coverage statistics, officials lose sight of the real ends: use and maintenance, hygiene and behavioural change, reduction in death and disease. As a result, even dramatically improved statistics on 'average' coverage can conceal significant numbers of people who have been excluded by the programme's failure to focus on the lasting and equitable provision of services to all. When figures and targets skew a programme in this way, it is very often the poorest and the most vulnerable who pay the price.

There is clearly a need to develop more nuanced means of monitoring progress. But the change must, in the end, go deeper than that. All of the problems discussed here relate in one way or another to a question of attitude. If government are serious about supporting people-led programmes, then will have to learn that new ways of working and new patterns of thought – patience, flexibility, respect – are key elements of success. ■

**'If NGOs recognise that government's role is crucial, they will have to start demonstrating strategies that could work through the structures of local government'**



**SANDY CAIRNCROSS** IS PROFESSOR OF ENVIRONMENTAL HEALTH AT THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE. AT THE CLOSE OF THE 1980s HE WAS COMMISSIONED BY THE WORLD BANK TO WRITE THE REPORT *SANITATION AND WATER SUPPLY: PRACTICAL LESSONS FROM THE DECADE*. ALMOST FIFTEEN YEARS LATER, HE FINDS THAT MANY OF THOSE LESSONS HAVE STILL NOT BEEN PUT INTO PRACTICE.

OVER THE LAST ten or fifteen years the discourse of 'community participation' has been widely accepted by those working in the field of water and sanitation. But this is a change more likely to be noticed in documents than in villages.

It has not been difficult for bureaucrats to swallow a rhetoric that is effectively void of political content. Terms like 'participation' and 'empowerment' mean different things to different people. No-one is being forced to consider the practical implications of such phrases, and as a result we have been slow to turn the jargon into something that might be useful: specific, realistic policies. If the resources of governments are to be brought to bear on the challenge of water and sanitation, it is essential that the vague, ill-defined vocabulary of recent years gets properly thought through. That is now the responsibility of everyone involved in the sector: from local NGOs to international pundits, the advocates of the new approach must move beyond the sound and fury, and start to be clear about what, exactly, is being advocated.

The idea of community participation, in particular, has implications which are not being properly considered. For a start, it presupposes that you actually have a community which is able to participate. But a community without adequate representation is just a rabble of individuals. People can only participate through their institutions - and across huge swathes of the developing world, local institutions that are genuinely representative and accountable simply do not exist. Very often the supposed community itself is riven by divisions of ethnicity, gender, language, caste or politics, making it difficult to get even something as rudimentary as a water committee up and running.

In effect, the challenge for many of those who advocate participation is nothing less than the creation of an embryonic local government – a process which took a hundred years in the industrialised nations and which isn't going to happen overnight in the developing world. In many villages that struggle has been left in the hands of hydraulic engineers or NGOs who know that the good management and equitable distribution of water will depend upon the existence of functioning institutions.

'Demand driven' is another staple phrase in the discourse that has now been adopted by governments and aid agencies – and again, the practical implications of that are not being adequately addressed.

**'We have been slow to turn the jargon into something that might be useful: specific, realistic policies'**

The creation of demand requires the social marketing of sanitation. Instead of leaving that process to the sporadic efforts of NGOs, governments should be thinking about how they can put their own resources into creating a marketing strategy on a national scale. That might mean, for example, the creation of a Sanitation Marketing Department within every municipality. It might mean diverting resources towards the promotion rather than production of latrines, thereby breaking the link that limits the number of toilets built to the size of the subsidy budget. How many local governments have accompanied their new policy documents with that kind of restructuring and reinvestment?

If government strategy is to be based on demand, then local authorities also need to consider how they are going to meet that demand. Traditional systems of centralized

delivery are far too cumbersome to respond to a demand-driven strategy. They are designed to deliver pre-fabricated solutions in their own time and at their own scale – not to wait until a felt-need surfaces among the people and then come up with low-cost, locally viable solutions. A more agile approach would rely upon the involvement of small-scale private sector producers. But that does not mean that government has no part to play. Municipal centres for social marketing could be linked to centres that stimulate production, train masons, develop technologies, promote a range of models, act as brokers between clients and producers, and regulate the work of hardware manufacturers (see the contribution of UNICEF's Chandan Sengupta on page 27).

The successful projects of NGOs often use approaches that governments, for a whole host of reasons, find difficult to replicate. If NGOs recognise that government is crucial in order to go to scale, then they will have to start demonstrating strategies that could work through the structures of local government.

There is no reason why the task of 'showing the way' should be left exclusively to NGOs. Committed officials within local government can also rise to the challenge of thinking this thing through and putting the new discourse into practise. If one district can use its own resources to market sanitation, awaken demand, and respond to that demand through local networks of supply, then it will provide a powerful incentive for others within local and national government to follow suit. Paper-based advocacy has played its part. But the challenge ahead is to confront governments with functioning examples of a new approach – examples which can be visited, which can be costed, which can be scaled-up and which can be shown to work. ■



**DAVID SATTERTHWAITE** IS A SENIOR FELLOW AT THE *INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT (IIED)* AND EDITOR OF THE *INTERNATIONAL JOURNAL ENVIRONMENT AND URBANIZATION*. IN 2002-3, HE WORKED WITH GORDON MCGRANAHAN AND UN-HABITAT TO PRODUCE *WATER AND SANITATION IN THE WORLD'S CITIES: LOCAL ACTION FOR GLOBAL GOALS*. HE IS ALSO A MEMBER OF THE UN MILLENNIUM PROJECT'S TASKFORCE ON IMPROVING THE LIVES OF SLUM DWELLERS.

DESPITE THE lack of success in improving provision for water and sanitation in urban areas – at least 650 million people still lack adequate provision for water and at least 850 million lack adequate provision for sanitation – there are signposts that show new ways forward. These include improved provision by local governments, driven by stronger local democracies – and often with no international support. Examples include the improvements in Porto Alegre, in Brazil, and Ilo, in Peru, over the last 20 years – although it is no coincidence that both of these have happened under governments well known for their participatory engagement with citizens and their community organizations.

In Asia and Africa, there are more examples of community-driven improvements without supportive government agencies. But the key lesson from these is how much can be achieved through partnerships with local government. In India, the Alliance formed by SPARC, the *National Slum Dwellers Federation* and *Mahila Milan* (see pages 18, 20, 24) demonstrated that it can produce cheaper, better designed, built and managed toilet blocks than Municipal Authorities. Yet only when the Municipal Authorities in Pune and Mumbai supported them could the toilet block programme expand to reach hundreds of thousands of people.

The community-managed construction of sewers in Karachi, supported by the local NGO known as the Orangi Pilot Project, was initiated because municipal sewers were too expensive for poor households. But the programme was always intended as a demonstration to local government of a more effective approach. It also emphasized the need for government to ensure the framework of water, sewer and drainage mains into which

community-managed systems could fit. Water points and toilet blocks developed by Bangladeshi NGOs in Dhaka and Chittagong are also designed to demonstrate feasible models to government agencies.

**'Donor agencies were set up to fund national governments – not local community initiatives'**

These initiatives – all of them large scale – have sought to develop improvements that can be funded locally, that still reach the poorest groups, and that serve as models for what local agencies can do.

Where does this leave international agencies? In the above examples, the key actors are the community organizations, their (local) support NGOs, and local governments. But official donor agencies were set up to fund national governments – not local community initiatives – and no national government wants to lose control of the allocation of donor funds.

But there are some interesting examples of international donors working in new ways to support more local and community-based programmes. Both the British Government's Department for International Development (DFID) and the Swedish International Development Cooperation Agency (Sida), for example, are supporting the Community Led Infrastructure Finance Facility (CLIFF) programme to help fund initiatives undertaken by the urban poor federations in India. This approach is particularly innovative in two ways: first, by providing a fund for community organizations in India, it allows more innovation, more small initiatives and more rapid responses on the ground; second, it

helps leverage funding and other resources from Indian institutions so funding goes much further (and much of it is recovered for re-investment).

Another example is Sida's funding of PRODEL (Local Development Programme) in Nicaragua. Sida recognized that it could not support many diverse initiatives in many different places from Stockholm; so PRODEL was set up, based in Nicaragua, with three components: grants to municipalities to improve infrastructure and services (including water and sanitation); loans to households for house improvement (including provision for water and sanitation); and micro-credit to household enterprises (with higher incomes allowing households to invest more in water and sanitation). This is a reminder of the different routes by which provision can be improved.

These examples decentralize funding decisions to local institutions that work with community organizations. They recognize that they must support local authorities working with community organizations wherever possible. This has also been the approach of international NGOs such as Homeless International (which helped set up CLIFF) and *WaterAid*.

Out of these diverse experiences, perhaps the key messages are: support local processes driven by or accountable to urban poor organizations that provide the means by which provision of services is improved (including upgrading, new house development); and support local governments and other water and sanitation providers in working with them.

Not an easy task for large, centralized development banks and bilateral agencies. ■

## HOW CLEAN IS MY COUNTRY?

### Basic statistics on water, sanitation, and hygiene for 100 countries

The following pages present the best available global snapshot of progress in water, sanitation, and hygiene.

The WSSCC intends to monitor progress towards the *Millennium Development Goal* of halving the proportion of people without safe water and sanitation by 2015. To this end, a *People's Right to Water and Sanitation Report* will be published every two years, beginning in 2005.

It is also important to measure progress locally. The photograph below shows a sign erected outside Kalmandhai in Tamil Nadu, India, proclaiming India's first 100% sanitised slum.



	BASIC FACTS				HOW CLEAN IS MY COUNTRY								IMPACT					
	Total population (millions)	Number of years for population to double (at current growth rate)	GNI per capita (US\$)	Population density (persons per sq km)	Total excrement produced per year (millions of metric tonnes)	% of excrement not disposed of safely	Amount of excrement not disposed of safely per year (millions of metric tonnes)	Equivalent number of oil barrels of excrement not disposed of safely (per day)		% of population without access to improved water supply	% of population without access to improved sanitation	Number of people without access to improved water supply (millions)	Number of people without access to improved sanitation (millions)	Estimated annual number of children dying from poor hygiene	Diarrhoeal disease rate (% of children suffering diarrhoea in the two weeks prior to survey)	% of children not growing normally	Under-five mortality rate (per 1000 live births)	
AFGHANISTAN	28.7	41.7	250	44	2.7	88	2.4	48264		87	88	25.0	25.3	48000	20.0	48	257	AFGHANISTAN
ALBANIA	3.1	90.9	1230	108	0.3	9	<0.1	533		3	9	<0.1	0.3	200	7.3	14	30	ALBANIA
ALGERIA	31.7	76.9	1630	14	3.0	8	0.2	4846		11	8	3.5	2.5	8200	19.8	6	49	ALGERIA
ANGOLA	13.1	34.5	500	10	1.2	56	0.7	14019		62	56	8.1	7.3	34500	28.4	43	260	ANGOLA
ARGENTINA	36.9	83.3	6960	13	3.5	22	0.8	15513		12	22	4.4	8.1	700	4.2	3	19	ARGENTINA
ARMENIA	3.2	166.7	560	108	0.3	25	<0.1	1529		26	25	0.8	0.8	400	18.5	3	35	ARMENIA
AZERBAIJAN	8.2	125.0	650	95	0.8	13	0.1	2037		22	13	1.8	1.1	4100	21.7	17	105	AZERBAIJAN
BANGLADESH	146.7	45.5	370	1019	13.9	52	7.2	145779		3	52	4.4	76.3	21000	6.1	48	77	BANGLADESH
BELARUS	9.9	n p g	1190	47	0.9	3	<0.1	568		0	3	<0.1	0.3	no data	no data	0	20	BELARUS
BENIN	7.0	37.0	360	63	0.7	77	0.5	10300		37	77	2.6	5.4	10300	26.1	29	158	BENIN
BHUTAN	0.9	40.0	640	20	<0.1	30	<0.1	516		38	30	0.3	0.3	no data	no data	19	95	BHUTAN
BOLIVIA	8.6	43.5	940	8	0.8	30	0.2	4930		17	30	1.5	2.6	4900	24.8	9	77	BOLIVIA
BRAZIL	176.5	76.9	3060	20	16.7	24	4.0	80950		13	24	22.9	42.4	18900	13.1	6	36	BRAZIL
BULGARIA	7.5	n p g	1560	68	0.7	2	<0.1	287		0	2	<0.1	0.2	no data	no data	3	16	BULGARIA
BURKINA FASO	13.2	35.7	210	48	1.3	71	0.9	17910		58	71	7.7	9.4	19300	20.0	34	197	BURKINA FASO
BURUNDI	6.1	45.5	100	219	0.6	12	<0.1	1399		22	12	1.3	0.7	5700	13.5	45	190	BURUNDI
CAMBODIA	12.6	55.6	270	69	1.2	83	1.0	19985		70	83	8.8	10.5	10700	18.9	46	138	CAMBODIA
CAMEROON	15.7	45.5	570	33	1.5	21	0.3	6301		42	21	6.6	3.3	15100	19.0	18	155	CAMEROON
CHAD	9.3	31.3	200	7	0.9	71	0.6	12618		73	71	6.8	6.6	21000	31.0	28	200	CHAD
CHILE	16.0	83.3	4350	20	1.5	4	<0.1	1223		7	4	1.1	0.6	300	6.4	1	12	CHILE
CHINA	1288.7	166.7	890	134	122.3	60	73.4	1477623		25	60	322.2	773.2	no data	no data	10	39	CHINA
COLOMBIA	44.2	55.6	1910	38	4.2	14	0.6	11825		9	14	4.0	6.2	3600	13.9	7	23	COLOMBIA
CONGO DEM.REP.	56.6	34.5	100	11	5.4	79	4.2	85448		55	79	31.1	44.7	45500	22.7	34	108	CONGO DEM.REP.
COSTA RICA	4.2	71.4	3950	81	0.4	7	<0.1	562		5	7	0.2	0.3	100	6.2	21	11	COSTA RICA
COTE D'IVOIRE	17.0	52.6	630	53	1.6	48	0.8	15594		19	48	3.2	8.2	20700	20.0	21	175	COTE D'IVOIRE
CUBA	11.3	200.0	1170	102	1.1	2	<0.1	432		9	2	1.0	0.2	no data	no data	4	9	CUBA
DOMINICAN REPUBLIC	8.7	100.0	2230	179	0.8	33	0.3	5486		14	33	1.2	2.9	2200	20.1	5	47	DOMINICAN REPUBLIC
ECUADOR	12.6	47.6	1240	44	1.2	14	0.2	3371		15	14	1.9	1.8	no data	no data	15	30	ECUADOR
EGYPT	72.1	47.6	1530	72	6.8	2	0.1	2756		3	2	2.2	1.4	5800	7.1	12	41	EGYPT
EL SALVADOR	6.6	43.5	2050	315	0.6	18	0.1	2270		23	18	1.5	1.2	1500	19.8	12	39	EL SALVADOR
ESTONIA	1.4	n p g	3880	30	0.1	5	<0.1	134		0	5	<0.1	0.1	no data	no data	no data	12	ESTONIA
ETHIOPIA	70.7	37.0	100	64	6.7	88	5.9	118895		76	88	53.7	62.2	95500	23.6	47	172	ETHIOPIA
FIJI	0.9	52.6	2130	47	<0.1	57	<0.1	980		53	57	0.5	0.5	100	2.3	8	21	FIJI
GEORGIA	4.7	n p g	620	67	0.4	0	<0.1	0		21	0	1.0	<0.1	200	6.0	3	29	GEORGIA
GHANA	20.5	47.6	290	85	1.9	28	0.5	10969		27	28	5.5	5.7	no data	no data	25	100	GHANA
GUATEMALA	12.4	38.5	1670	113	1.2	19	0.2	4502		8	19	1.0	2.4	3200	13.3	24	58	GUATEMALA
GUINEA	9.0	37.0	400	37	0.9	42	0.4	7224		52	42	4.7	3.8	15800	30.5	23	169	GUINEA
HAITI	7.5	55.6	480	271	0.7	72	0.5	10319		54	72	4.1	5.4	7200	25.7	28	123	HAITI
HONDURAS	6.9	34.5	900	61	0.7	25	0.2	3296		12	25	0.8	1.7	1600	19.3	24	38	HONDURAS
INDIA	1068.6	58.8	460	325	101.4	72	73.0	1470308		16	72	171.0	769.4	519500	19.2	47	93	INDIA

	BASIC FACTS				HOW CLEAN IS MY COUNTRY								IMPACT					
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INDONESIA	220.5	62.5	680	116	20.9	45	9.4	189619		22	45	48.5	99.2	24200	10.4	26	45	INDONESIA
IRAN	66.6	83.3	1750	41	6.3	17	1.1	21636		8	17	5.3	11.3	7900	11.3	11	42	IRAN
JAMAICA	2.6	66.7	2720	241	0.2	1	<0.1	50		8	1	0.2	<0.1	200	9.5	4	20	JAMAICA
JORDAN	5.5	41.7	1750	61	0.5	1	<0.1	105		4	1	0.2	<0.1	1000	18.0	5	33	JORDAN
KAZAKHSTAN	14.8	200.0	1360	5	1.4	1	<0.1	283		9	1	1.3	0.1	3300	13.4	4	76	KAZAKHSTAN
KENYA	31.6	50.0	340	54	3.0	13	0.4	7850		43	13	13.6	4.1	22000	17.1	23	122	KENYA
KYRGYZSTAN	5.0	76.9	280	25	0.5	0	<0.1	0		23	0	1.2	<0.1	1400	17.6	11	61	KYRGYZSTAN
LAOS	6.0	43.5	310	23	0.6	70	0.4	8026		63	70	3.8	4.2	1200	6.2	40	100	LAOS
LEBANON	4.2	71.4	4010	403	0.4	1	<0.1	80		0	1	<0.1	<0.1	600	19.3	3	32	LEBANON
LIBYA	5.5	41.7	5540	3	0.5	3	<0.1	315		28	3	1.5	0.2	500	16.9	5	19	LIBYA
MACEDONIA	2.0	200.0	1690	80	0.2	no data	no data	no data		no data	no data	no data	no data	no data	no data	6	no data	MACEDONIA
MADAGASCAR	17.0	33.3	260	29	1.6	58	0.9	18842		53	58	9.0	9.9	10000	12.8	33	136	MADAGASCAR
MALAWI	11.7	38.5	170	98	1.1	43	0.5	9614		43	43	5.0	5.0	12000	16.1	25	183	MALAWI
MALAYSIA	25.1	47.6	3640	76	2.4	2	<0.1	959		6	2	1.5	0.5	100	2.0	18	8	MALAYSIA
MALI	11.6	33.3	210	9	1.1	31	0.3	6872		94	31	10.9	3.6	24100	25.3	43	231	MALI
MAURITIUS	1.2	34.5	3830	58	0.1	1	<0.1	23		0	1	<0.1	<0.1	100	3.4	16	19	MAURITIUS
MEXICO	104.9	41.7	5540	54	10.0	26	2.6	52121		12	26	12.6	27.3	7400	9.7	7	29	MEXICO
MOLDOVIA	4.3	n p g	380	126	0.4	1	<0.1	82		8	1	0.3	<0.1	100	4.2	no data	32	MOLDOVIA
MONGOLIA	2.5	90.9	400	2	0.2	70	0.2	3344		40	70	1.0	1.8	500	8.0	13	76	MONGOLIA
MOROCCO	30.4	62.5	1180	68	2.9	32	0.9	18590		20	32	6.1	9.7	3400	10.4	9	44	MOROCCO
MOZAMBIQUE	17.5	76.9	210	21	1.7	57	0.9	19062		43	57	7.5	10.0	34000	28.9	26	197	MOZAMBIQUE
MYANMAR	49.5	71.4	220	73	4.7	36	1.7	34054		28	36	13.9	17.8	no data	no data	36	109	MYANMAR
NEPAL	25.2	41.7	250	171	2.4	72	1.7	34673		12	72	3.0	18.1	19500	27.5	47	91	NEPAL
NICARAGUA	5.5	37.0	420	42	0.5	15	<0.1	1577		23	15	1.3	0.8	1100	14.0	12	43	NICARAGUA
NIGER	12.1	28.6	170	9	1.1	80	0.9	18498		41	80	5.0	9.7	48500	40.0	40	265	NIGER
NIGERIA	133.9	35.7	290	145	12.7	46	5.8	117706		38	46	50.9	61.6	125000	15.3	31	183	NIGERIA
NORTH KOREA	22.0	166.7	no data	188	2.1	37	0.8	15556		8	37	1.8	8.1	no data	no data	60	55	NORTH KOREA
OMAN	2.6	40.0	494	12	0.2	8	<0.1	397		61	8	1.6	0.2	100	6.7	23	13	OMAN
PAKISTAN	149.1	37.0	420	187	14.1	38	5.4	108273		10	38	14.9	56.7	135000	26.0	38	109	PAKISTAN
PALESTINIAN TERRITORY	3.6	28.6	1350	581	0.3	0	<0.1	0		14	0	0.5	<0.1	no data	no data	4	24	PALESTINIAN TERRITORY
PANAMA	3.0	55.6	3290	39	0.3	8	<0.1	459		10	8	0.3	0.2	300	12.6	7	25	PANAMA
PAPUA NEW GUINEA	5.5	40.0	580	12	0.5	18	<0.1	1892		58	18	3.2	1.0	2600	16.5	6	94	PAPUA NEW GUINEA
PARAGUAY	6.2	37.0	1300	15	0.6	6	<0.1	711		22	6	1.4	0.4	1000	16.1	5	30	PARAGUAY
PERU	27.1	50.0	2000	21	2.6	29	0.7	15019		20	29	5.4	7.9	4900	17.9	8	39	PERU
PHILIPPINES	82.0	45.5	1040	272	7.8	17	1.3	26639		14	17	11.5	13.9	6500	7.4	29	38	PHILIPPINES
ROMANIA	21.6	n p g	1710	91	2.0	47	1.0	19400		42	47	9.1	10.2	900	14.2	6	21	ROMANIA
RUSSIA	145.5	n p g	1750	8	13.8	no data	no data	no data		2	no data	2.9	no data	no data	no data	6	21	RUSSIA
RWANDA	5.0	52.6	220	316	0.5	92	0.4	8791		59	92	3.0	4.6	6500	21.8	29	183	RWANDA
SAUDI ARABIA	24.1	34.5	7230	11	2.3	0	<0.1	0		5	0	1.2	<0.1	6500	29.4	14	28	SAUDI ARABIA
SENEGAL	10.6	37.0	480	139	1.0	30	0.3	6077		22	30	2.3	3.2	10500	21.3	18	138	SENEGAL

## BASIC FACTS

## HOW CLEAN IS MY COUNTRY

## IMPACT

	Total population (millions)	Number of years for population to double (at current growth rate)	GNI per capita (US\$)	Population density (persons per sq km)	Total excrement produced per year (millions of metric tonnes)	% of excrement not disposed of safely	Amount of excrement not disposed of safely per year (millions of metric tonnes)	Equivalent number of oil barrels of excrement not disposed of safely (per day)	% of population without access to improved water supply	% of population without access to improved sanitation	Number of people without access to improved water supply (millions)	Number of people without access to improved sanitation (millions)	Estimated annual number of children dying from poor hygiene	Diarrhoeal disease rate (% of children suffering diarrhoea in the two weeks prior to survey)	% of children not growing normally	Under-five mortality rate (per 1000 live births)	
SIERRA LEONE	5.7	40.0	140	80	0.5	34	0.2	3704	43	34	2.5	1.9	15500	25.3	27	316	SIERRA LEONE
SLOVAKIA	5.4	500.0	3700	109	0.5	0	<0.1	0	0	0	<0.1	<0.1	no data	no data	0	9	SLOVAKIA
SOMALIA	8.0	34.5	120	13	0.8	no data	no data	no data	no data	no data	no data	no data	14400	23.4	26	225	SOMALIA
SOUTH AFRICA	44.0	111.1	2900	36	4.2	13	0.5	10931	14	13	6.2	5.7	10600	13.2	11	71	SOUTH AFRICA
SOUTH KOREA	45.0	142.9	no data	188	4.3	1	<0.1	860	0	1	<0.1	0.5	no data	no data	0	5	SOUTH KOREA
SRI LANKA	19.3	76.9	830	293	1.8	6	0.1	2213	23	6	4.4	1.2	400	5.0	33	19	SRI LANKA
SUDAN	38.1	35.7	380	15	3.6	38	1.4	27667	25	38	9.5	14.5	40900	29.4	17	107	SUDAN
SYRIA	17.5	41.7	1000	95	1.7	10	0.2	3344	20	10	3.5	1.8	1300	8.6	13	28	SYRIA
TAJIKISTAN	6.6	71.4	170	46	0.6	10	<0.1	1261	40	10	2.6	0.7	no data	no data	8	72	TAJIKISTAN
TANZANIA	35.4	43.5	270	37	3.4	10	0.3	6765	32	10	11.3	3.5	25700	12.4	29	165	TANZANIA
THAILAND	63.1	142.9	1970	123	6.0	4	0.2	4823	16	4	10.1	2.5	2600	8.4	18	28	THAILAND
TUNISIA	9.9	90.9	2070	61	0.9	16	0.2	3027	20	16	2.0	1.6	400	5.8	4	27	TUNISIA
TURKEY	71.2	66.7	2540	92	6.8	10	0.7	13606	18	10	12.8	7.1	20700	29.7	8	43	TURKEY
UGANDA	25.3	33.3	280	104	2.4	21	0.5	10153	48	21	12.1	5.3	28500	23.5	26	124	UGANDA
UKRAINE	47.8	n p g	720	79	4.5	1	<0.1	913	2	1	1.0	0.5	600	4.1	3	20	UKRAINE
UZBEKISTAN	25.7	66.7	550	57	2.4	11	0.3	5402	15	11	3.9	2.8	2700	5.3	19	68	UZBEKISTAN
VENEZUELA	25.7	52.6	4760	28	2.4	32	0.8	15716	17	32	4.4	8.2	1700	11.4	5	22	VENEZUELA
VIETNAM	80.8	76.9	410	243	7.7	53	4.1	81837	23	53	18.6	42.8	7900	11.3	33	38	VIETNAM
YEMEN	19.4	30.3	460	37	1.8	62	1.1	22986	31	62	6.0	12.0	20800	27.5	46	107	YEMEN
ZAMBIA	10.9	45.5	320	14	1.0	22	0.2	4583	36	22	3.9	2.4	18400	23.5	25	202	ZAMBIA
ZIMBABWE	12.6	83.3	480	32	1.2	38	0.5	9150	17	38	2.1	4.8	6600	13.9	13	123	ZIMBABWE

## DEFINITION

## DATA SOURCE

Total population (millions)	Population in millions, as of 1st January 2003.	Statistics from Population Reference Bureau (2003). Website: <a href="http://www.prb.org">www.prb.org</a>
Number of years for population to double (at current growth rate)	Number of years for population to double at current growth rate (2003 growth rate). n p g = negative population growth	Calculation: (country population / (country population x growth rate <sup>100</sup> )). Statistics from Population Reference Bureau (2003). Website: <a href="http://www.prb.org">www.prb.org</a>
GNI per Capita (US\$)	GNI per capita (US\$) is the gross national income (2003), converted to U.S. dollars using the World Bank Atlas method, divided by the midyear (2003) population. GNI is the sum of value added by all resident producers plus any product taxes (minus subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad.	Statistics from World Bank Group (2003). Website: <a href="http://www.worldbank.org/data/countrydata/countrydata.html">http://www.worldbank.org/data/countrydata/countrydata.html</a>
Population density (persons per sq km)	Persons per square kilometre (2003).	Statistics from Population Reference Bureau (2003). Website: <a href="http://www.prb.org">www.prb.org</a>
Total excrement produced per year (millions of metric tonnes)	Annual amount of excrement produced per year, measured in millions of metric tonnes.	Calculation based on data from 'WHO Guide to On-site Sanitation', page 31, by R. Franceys, J. Pickford & R. Reed (1993). Mean weight of faeces = 0.26kg. Calculation: ((country population x mean weight of wet faeces (0.26kg) x 365 days) / conversion to millions of metric tonnes (1,000,000,000)). Millions of metric tonne conversion factor = 1,000 (to convert kg to tonnes) x 1,000,000 (to convert tonnes to million of metric tonnes) = 1,000,000,000. Assuming every person passes faeces once per day.
% of excrement not disposed of safely	% of country's excrement not disposed of safely (2001).	Calculation: 100 - % population with access to improved sanitation. Statistics from WHO/UNICEF Joint Monitoring Programme for Water Supply & Sanitation (2001). Website: <a href="http://www.wssinfo.org/en/welcome.html">http://www.wssinfo.org/en/welcome.html</a> . These figures reflect a consumer based household sampling methodological approach.
Amount of excrement not disposed of safely per year (millions of metric tonnes)	Amount of excrement not disposed safely per year, measured in millions of metric tonnes.	Calculation: (% excrement not safely disposed/100) x total excrement produced per year.
Equivalent number of oil barrels of excrement not disposed of safely per day	Equivalent number of oil barrels of excrement not disposed of safely per day.	Calculation: (amount of excrement not disposed safely / 365) x 7.35. Assuming 1 metric tonne is equivalent to 7.35 barrels of crude oil. Website (for oil barrel conversion): <a href="http://www.processassociates.com/process/basics/oil_vw.htm">http://www.processassociates.com/process/basics/oil_vw.htm</a>
% of population without access to improved water supply	% of population without access to improved water supply (2001). Improved water supply is defined as a household connection; public standpipe; borehole; protected dug well; protected spring; or rainwater collection. Non-improved water supply is defined as an unprotected well; unprotected spring; vendor provided water; or tanker truck water. Definitions from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.	Statistics from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2001). Website: <a href="http://www.wssinfo.org/en/welcome.html">http://www.wssinfo.org/en/welcome.html</a> . These figures reflect a consumer based household sampling methodological approach.
% of population without access to improved sanitation	% of population without access to improved sanitation (2001). Improved sanitation is defined as connection to the public sewer system; connection to a septic tank system; hygienic pit latrine; pour-flush latrine; or ventilated improved pit latrine. Non-improved sanitation is defined as the use of bucket or service latrines; public or shared latrines; or latrines with open pits. Definitions from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.	Statistics from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2001). Website: <a href="http://www.wssinfo.org/en/welcome.html">http://www.wssinfo.org/en/welcome.html</a> . These figures reflect a consumer based household sampling methodological approach.
Number of people without access to improved water supply (millions)	Number of people without access to improved water supply (millions) (2001). Improved water supply is defined as a household connection; public standpipe; borehole; protected dug well; protected spring; or rainwater collection. Non-improved water supply is defined as an unprotected well; unprotected spring; vendor provided water; or tanker truck water. Definitions from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.	Calculation: ((% population without access to improved water supply / 100) x country population). Statistics from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2001). Website: <a href="http://www.wssinfo.org/en/welcome.html">http://www.wssinfo.org/en/welcome.html</a>
Number of people without access to improved sanitation (millions)	Number of people without access to improved sanitation (millions) (2001). Improved sanitation is defined as connection to the public sewer system; connection to a septic tank system; hygienic pit latrine; pour-flush latrine; or ventilated improved pit latrine. Non-improved sanitation is defined as the use of bucket or service latrines; public or shared latrines; or latrines with open pits. Definitions from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.	Calculation: ((% population without access to improved sanitation / 100) x country population). Statistics from WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2001). Website: <a href="http://www.wssinfo.org/en/welcome.html">http://www.wssinfo.org/en/welcome.html</a>
Estimated annual number of children dying from poor hygiene	Estimated annual number of children dying from poor hygiene, based solely on diarrhoea disease rate.	Calculation: ((under 5 year mortality rate/1000) x under 5 year child country population x diarrhoea disease rate) x ratio of under 5 year diarrhoea cases that result in death (0.18). The diarrhoea cases/deaths ratio (0.18) is calculated from the known total number of children under 5 years dying each year from diarrhoeal diseases (roughly 1.8 million per year, data from the World Health Report 2002, WHO), and the under 5 year child mean global diarrhoeal disease rate (UNICEF <a href="http://www.childinfo.org">www.childinfo.org</a> , data collected from 1992-2000). Statistics from UNICEF (2001). Website: <a href="http://www.childinfo.org">www.childinfo.org</a> . WHO statistics website: <a href="http://www3.who.int/whosis/menu.cfm">http://www3.who.int/whosis/menu.cfm</a>
Diarrhoeal disease rate (% of children suffering diarrhoea in previous two weeks of survey)	% of children under 5 years with diarrhoea in the two weeks prior to the UNICEF surveys (1992-2000).	Statistics from UNICEF (2001). Website: <a href="http://www.childinfo.org">www.childinfo.org</a> . The prevalence of diarrhoea may vary by season. Country surveys were administered at different times, from 1992-2000.
% of children not growing normally	% of children under 5 years with weight-for-age more than two standard deviations below median weight-for-age (2001).	Statistics from UNICEF (2001). Website: <a href="http://www.childinfo.org">www.childinfo.org</a> . Under 5 year child malnutrition rate: % of children under 5 years with weight-for-age more than two standard deviations below median weight-for-age.
Under-five mortality rate (per 1000 live births)	Number of under 5 year deaths per 1000 live births (2001).	Statistics from UNICEF (2001). Website: <a href="http://www.childinfo.org">www.childinfo.org</a> . Number of under 5 year deaths per 1000 live births.



Lack of safe sanitation is the number one enemy of world health. And it is an issue that has been shrouded in embarrassment for too long.

Safe water, sanitation and hygiene is what transformed health and productivity in the rich world. And it is one of the world's longest running scandals that the same has not happened long ago in the poor world.

Why do a billion people still lack safe water? Why do two and a half billion have no adequate sanitation? Why does faecal matter still contaminate water, food, hands, homes?

The UN *Millennium Development Goals* call for a halving of the proportion of people without safe water and sanitation by the year 2015. These goals are unlikely to be achieved without a vigorous movement to campaign for them – and without sustained support from the world's media.

This publication pictured here – *A guide to investigating one of the biggest scandals of the last 50 years* – is designed to assist media professionals willing to pick up this challenge. It offers some of the key facts, exposes some of the common myths, and suggests a check list that might help evaluate government performance.

Copies of the publication are available from the WSSCC at the address shown below or or by downloading from the Council web-site.

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