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# *The magic of slums*

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*Slums need not be the cesspools of a city. Himanshu Parikh's Indore Habitat Project, now replicated in the slums of Baroda and Ahmedabad, succeeded where so many state projects have failed because it adopted the community approach. The 1998 Aga Khan award winner has helped to transform the lives of eight lakh urban dwellers, demolishing several myths about development along the way.*

"I am not a development guru," proclaims Aga Khan Award winner, Himanshu Parikh. Perhaps that is why this rather unassuming, Cambridge-educated civil engineer seems to have succeeded where numerous government and World Bank-aided slum improvement schemes have floundered. It was the Overseas Development Administration-aided Indore Habitat Project for which he won the United Nations World Habitat Award for Urban Development in 1993 and the 1998 Aga Khan Award for Architecture. Parikh, however, did not stop at Indore. A man with a vision for "reclaiming community space from growing social and physical environmental degradation," he went on to evolve and replicate his ideas in Baroda and Ahmedabad.

He has already changed the lives of eight lakh of the most marginalised urban dwellers in India. But it's not the figures that interest him; it's the myths about development that Parikh wants to put to rest. An interest in Habitat and Design led him to question the cliches and established views emerging from development circles. He challenged the school of thought that views slums as a problem. "Pro-poor development takes a section of society and creates a group of disadvantaged people, locking them into requiring a different kind of solution," he argues. In fact, he believes, slums have a certain magic, which makes them an entry point to changing cities. Instead of finding "low-cost" solutions unique to the slums, we must explore the commonality between the slums and the better parts of the city to find interventions that integrate the two, and are mutually beneficial to both, he urges.

Alternative solutions don't exist, only appropriate technologies do. With this belief he has tried to demolish another common myth--that slums require cheap solutions, such as common water stand-posts, poor quality brick-paving, open gutters, public latrines, or the World Bank's much touted twin-pit latrine. "A public toilet in India is a place outside which you defecate," he observes. In keeping with this viewpoint, his designs provide for house-to-house services under individual control, as opposed to public facilities. For individual water supply, he used slums to short-circuit the branches of pipelines flowing through the city into loops--one of the best ways of maintaining uniform pressure distribution in water supply. The fact that water-pressure is the same in every house in the slum settlements is proof of the fact that well-designed systems can be cheaper than conventional systems.

The Indore experience revealed that external aid limits community participation and promotes a dependency syndrome. So, for pilot projects in Baroda and Ahmedabad, external aid was eschewed for a community-based approach, attempting to include also the municipal corporation and corporate sponsors. In Baroda the slum community bore half the cost of the works, while in Ahmedabad they contributed a third of the finance, with the Ahmedabad Municipal Corporation (AMC) and corporate partner, Arvind Mills, each contributing a third. According to the Ahmedabad-based NGO, Saath, the experience shattered a common myth that slum-dwellers are not willing to pay for essential services. The Sanjay Nagar slum project in Ahmedabad won recognition among the Habitat II Best Practices for Slum Networking in 1996.

In another departure from convention, Parikh restricted his objective to upgrading infrastructure--roads, street lighting, drainage, water supply and landscaping--rather than upgrading shelter, as many previous schemes had done. He also laid emphasis on community participation, mustered through NGOs like the Baroda Citizen's Council, Saath and SEWA Bank, to improve the overall quality of life in terms of health, education and access to finance for shelter improvement and income-generation. The most apparent effect of improving infrastructure has been on health, states Rajendra Joshi of Saath, which runs dispensaries and balwadis in a number of slums in Ahmedabad. He notes that the incidence of tuberculosis and water-related ailments have dropped dramatically in the settlements covered by Slum Networking.

A less tangible but equally significant benefit is that the community has become more aware of the importance of education. Conceivably, this is because they now expend less time and energy on basic survival --procuring water and cleaning up their surroundings--making them more amenable to suggestions about their future and their children's education. Women now enjoy the privacy of their own toilets, and no longer have to face the indignity of bathing in the open. As Champaben Patni of Sanjay Nagar notes, "After getting amenities there is now a feeling of well-being." The early evidence, says Parikh, suggests that in the recent emphasis being laid on health and education in developmental circles, the importance of improved infrastructure and sanitation must not be overlooked.

The corporation's involvement also gave the slum-dwellers a measure of security that their dwellings would not be demolished. In fact, together with improved infrastructure, the AMC's grant of a 10-year tenure to the Sanjay Nagar slum actually inspired them to improve their own dwellings. To everyone's amazement, families invested from rupees 25,000 to 40,000 to renovate their houses, and save for one house, all the 182 dwellings in Sanjay Nagar have been transformed. This remarkable development proves that the community's role in decision-making plays a very important part in the success of a project. In addition, Parikh believes it also questions the very notion of poverty. In Baroda, for instance, while the municipal corporation took three years to raise 10 percent of their contribution, it took the slum-dwellers just three weeks to mobilise Rs. 23 lakhs, of their total contribution of Rs 45 lakhs. Ultimately, UNICEF had to bail out the corporation by contributing 40 percent of its share.

Parikh's unconventional approach has literally turned conventional development wisdom on its head. It emerged from the concept of using slums to develop city infrastructure. While studying the spatial location of slums for the Indore Habitat Project, a pattern emerged that was found to be common to all cities. Namely, that slums are consistently located along the natural drainage paths--the rivers, canals and water bodies--of a city. The natural drainage paths of a city function as nature's own gravity-based sewerage system, which prevents a city from drowning in its own waste. Conventional, man-made sewerage systems are not related to natural systems and have their own course. For this digression, they have to pay the high cost of deep excavation, back filling, manholes and pumping stations. Besides, a large part of the population is left out of the network, even in cities with a relatively good sewerage system.

Instead, Parikh believes in taking the strengths of nature to one's doorstep. By using the best path provided by nature, he demonstrates that it is possible to fashion city infrastructure to mimic and be closely connected with the city's natural drainage paths. This is where slums come in, because of their powerful connection with natural drainage courses. Having noted that slum settlements are spread all over a city, and are contiguous with one another, Parikh saw the opportunity to use this connection to strengthen existing city-level networks. This idea evolved into the concept known as Slum Networking.

A "topography-sensitive," gravity-based drainage system, with sewerage lines very close to the surface, brought down costs to less than one-fourth that of a conventional system. No line was more than two metres below the ground, and not a single pumping station was required. Whereas a conventional system would have required rupees 40 to 45 crore, the topographical system required just rupees eight crore. Even using larger pipes that could serve the entire city increased the cost to just rupees 10 crore. Within five years, in a city like Indore, which had no sewerage system to speak of, 100 kilometres of sewerage mains were installed, giving 50 percent of the population access to sanitation.

As the sewage began to be intercepted by the new network, it had an effect that was now visible on the city's water bodies. Polluted rivers were converted to fresh water bodies in stages, ground water quality improved making water in contaminated wells fit for drinking. Riverfronts were restored and new paths and gardens laid to provide walkways. Initially, Parikh planned to treat the sewage, using a natural method of "root-zone treatment," using a variety of plant called `phragmites' (See box). However, this plan was abandoned once the National River Action Plan came into being with the use of more conventional treatment methods.

The conventional practice of raising roads above ground level causes water to collect on the sides and damage the base, which becomes irreparable, and the roads require constant recarpeting. Instead, Parikh designed roads to work as an extension of the natural storm water drainage system, by giving them a positively downward slope and taking them into the heart of the settlement. This combined with landscaping--that acts as a sponge to stop silting and slows down water flow--prevented water accumulation and flooding in the low-lying settlements. Niraj Lal, who manages the Arvind Quality of Life Programme, attests to the success of Parikh's designs. "Even at the peak of the monsoon, there was not

an inch of water in the slum," says Lal. In Indore, the slums were also bordered by roads large enough to carry buses, enabling 90 kilometres of new bus-routes to be built up simply as a by-product of the networking project.

One obstacle yet to be overcome is the issue of solid waste management. Although several dustbins were provided for disposal of waste, the idea is yet to catch on with the community. There are also many lessons to be learnt from the setback suffered by the Ahmedabad Slum Networking Project when the corporate partner, Arvind Mills, pulled out because of differences with the AMC. As Joshi points out, "Tolerance between the partners is required." Never more than when bureaucracy meets professional corporate body. Although the AMC has extended his designs to projects in over 20 slum settlements and has made community contribution mandatory, Parikh fears that excluding the community from the decision-making process will lead to a return of the dependency syndrome. Lal also expresses reservations about the quality of work, and fears the concepts that have worked so well are being diluted in the recent works. "At this moment, the Slum Networking Project--which connects one slum to another--is dead in Ahmedabad," he laments. Parikh, who is not so anxious, believes that his ideas have to grow and evolve through experimentation and experience, and has plans to take them to other urban centres.

Although his propensity for calling a spade a spade has not enhanced his popularity in developmental circles, Parikh's accomplishment speaks for itself. The success of Slum Networking is evident on the faces of those who have benefited from it. There are ample reasons why it has succeeded where numerous other schemes have failed. A notable difference was that unlike other schemes, which involved eviction of slum-dwellers either temporarily or permanently, thus breaking up the social fabric of the settlement, it used those very community resources to forge drastic changes in situ. And unlike earlier schemes, which depended on external funding and did not stress community participation, it used available financial resources and empowered slum-dwellers with the decision-making ability to improve their own surroundings. The scheme is a triumph for those who, like Parikh, believe that our development strategies are decided by people who haven't a clue of what is happening in our country. But it is also a source of inspiration for those countless, nameless professionals who endeavour to make a difference in their own way, using only the talents they are endowed with.