# True stories of Dangi innovations from South Gujarat, India

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## Summary

The two pieces below are articles written by the author to convey to an urban audience that thinks, by and large, that villagers are "clueless suffering souls who deserve to suffer." This 'Innovations Special' was a column in a mainline daily website to counter misinformed urbanites in a suitable language.

Sitaben[1] is a straightforward 45-year-old working woman of the Dangi tribe in Southern Gujarat in hilly Western India who grew up in the jungles that have become her workplace. She is a *veigdh* (herbal healer) who runs her household by preparing medicines, unassumingly, much like the kindred landscape. In fact, the entire hilly Dangi area looks picturesquely innovative itself. Forests and farmland both play hide-and-seek with the passerby as this feels like a large forest, but has no undergrowth. This is because the innovative Dangis can farm on any incline, go up a hillock, go down a river bed, around a tree that they will not chop with the same crop result. Talk about working around nature. They produce a kind of rice that they turn into *rotis* (baked bread in rolls) as well.

Most Dangi people have never heard of fertilisers, pesticides, crime, allopathy or disease despite the fact that the nearest primary health centre is a 25 kilometres away at the capital township Ahwa. Months having gone by since it was blessed with a doctor's presence. With such a history and geography, it is no wonder that the local herbalist is active, well prepared, and knowledgeable about in the -house chemist 'ki dukaan' (shop) in the jungle.

1 Sitaben. (Ben in Gujarati means 'sister')

Sitaben learned the herbal treatments from her brothers when she was a child. The illnesses she has treated include too much blood flow during menstruation, ear or stomach ache, fever, asthma, diarrhoea, vomiting, coughs, gas trouble, jaundice, urinary pain, burns, and indigestion, well, almost anything. She is your general practitioner and your super specialist. No unnecessary fleece-all tests here. She usually makes the concoction in front of you and here is an example of the power of good quality earth that is still found here. She crushes the bark of the *Kalam* (no adequate corollary in English) tree and mixes it with the rich clay-like soil and this becomes a plaster for humans as well as animals with a fracture. She uses the *gal* fruit, which she crushes and throws in the pond to kill the fish without adversely contaminating it for human consumption.

Most of the cures have their own science of timing and additives, which she explains like a good doctor to her patient. These additives are not artificial but whatever forms a part of the regular diet. Sometimes it could be an egg with the medicine for indigestion or even a boiled bark or seasonal vegetable. Sometimes they can be as quaint as five holes made in the *Chilari* stick with a cotton thread passing through it. And then tying your ear with it. Believe it or not, it cures a headache. This system of medicine is local, creative, effective and, most of all, available in an emergency for these far-flung people. That explains Sitaben's popularity as a respected *veigdh*.

An irreplaceable asset, this native herbalist does her own R&D, runs her own apothecary from home and without being unduly conscious of it, is keeping alive a vibrant tradition. And they still say women in backward India do not get to use their mind'.

## Conclusion

*The piece above was a part of a series entitled the 'Innovations Special'; the conclusion of the Innovation Special follows*.

'The best of minds work away in the worst of times, seeking to change thousands of lives in between, even when no one comes forward to help. Self-help is a forgotten art. They are our points to remember. Native genius – Inventive spirit – Caring professionals, all a euphemism for innovators we ought to be proud of.

Entry number 2: This is a story of a biodiversity contest held in a hilly school (The same Dangi region) where most of the kids are failing a class or two. It taps their knowledge and makes them proud of themselves instead of giving them an inferiority complex. One of them is a young girl..

*Padhoge likhoge banoge nawab, nahin to banogey kharab.*
(A saying in Hindi, which means, "If you'll study you'll become a big learned man, otherwise you'll become useless and a flunkee.")

Let me introduce you to two flunkees. Ranjitbhai Bhambhai Bhoye is one of them. A lad, all of 15, stuck in a class lower than where he should have been. Now in this co-ed village class, also meet Manishaben Sivarambhai Vadvi, 13 years old, also above age for her batch.

They are one among the 28 present on the day at the Panchayat Primary School at Mahal in Ahwa District where a biodiversity contest is in progress. What does that mean, you ask? How many species grow here, and of what type, a raincheck of a kind to openly share the importance of conserving.

Ahwa is the district headquarters near where we are. It is the very pretty and very backward (in official terminology, and in terms of access to amenities) capital of the hilly tribal Dangi area of Southern Gujarat.

It is an area that has the feel of a large forest with no undergrowth. Its people can farm on any incline, grow a kind of rice that they make into roti (baked bread) as well and they have never known fertilisers, pesticides, and crime, among many other things.

Here the people are a unique reflection of the unpolluted environment, although they have to steal electricity (nobody has come to give them the infrastructure in years) and treat themselves since the primary health centre is a rough, tumbling 25 kilometres away at Ahwa. It takes over an hour by the patchy, ghat-like (ravine-like) driving route to get there. There too, it is just a building, months having gone by since it was blessed with a doctor's presence. So that is the background of the motley group at the school.

This is a biodiversity contest as it happens. Usually, the organisers of this contest, Sristi (Society for Research and Initiatives for Sustainable Technologies and Institutions, an Ahmedabad-based NGO) gives the kids a week to spend with grandparents and local healers and collect specimens, discuss the tales around them, draw and map it out, write out all its healing properties, a superb technique for intergenerational transfer of learning while fostering inquisitiveness. It is a rewarding experience for participants when a homework lesson means you got to play, draw, listen to stories, trek, share, go on a treasure hunt, and play doctor. Much less tedious than performing in a biology lab, and the results show.

It is the two flunkies introduced in the beginning who have topped the class. In a little over two hours, Ranjitbhai lists 108 without repeating any. Manishaben lists 102 without repeating the same. Almost all of them who carry the species 'specimen have pulled off a leaf, never the whole plant insensitively. These are basics that are taught senior forestry students that no one ever told these kids about. And this is one small primary school hamlet in so called backward Gujarat – I call it unharnessed Gujarat.

Let's look at the some of the qualities of the answers in the worst-off performances. Manishaben shares how she uses *Mahua* for oil, another herb for small cuts, another kind of green leafy *saag* for stomach pain. When asked if she knows what she wants to be when she grows up, she eagerly says, 'nurse'. She equally eagerly talks about how her parents take her along on trips to the jungle, where they share their learning in a useful proactive way. She likes school, but the teachers are trying to teach children inanities in English.

When Ranjitbhai is asked what he'll do with the prize money, he says, very shyly but surely, that he will buy notebooks. He says how, when he had a stomach ailment, his parents cured him by giving him a herb application. Since then, his curiosity persisted. He also shares openly on how long what will take to heal. Almost none of them have ever seen allopathic medicine. They have also never had any kind of epidemic. Asked many questions about collective health, they seem to be confident about healing themselves, even the 15-year-olds.

What kind of a system do we have that fails to tap the inherent potential in such a child, and lambasts his confidence by failing him? Turns a potential herbalist into a waiting-in-line *chaprasi* (a government servant who is generally a messenger or a guard)?

This learning is not a part of the curriculum, but look at how much they know. Kids coming from a radius of 4 kilometres brush past these species every day and would be the first to notice if something was disappearing.

How do we so unabashedly accuse these very people of decimating biodiversity when they know how much to use and when? Formal science marries informal learning and even the passerby stands to benefit as Sristi has realised. Their ecological findings through sophisticated techniques matched the knowledge of the communities based on their own careful observations. Besides being accurate, it is an exhaustive study with discoveries that go into the endangered list of the Red Data List of the International Union of Conservation Network. In one such study elsewhere, Sristi had recorded 107 species of trees, 58 species of shrubs, 49 species of climbers, 220 species of herbs, 40 species of grasses, and nine species of lower plants.

This led to a detailed sharing on animal movements, habitat, and food habits. The people participated enthusiastically, especially since they know the government more often than not ignores their experiential knowhow as irrelevant to any given project, even if it is in their own backyard. You cannot imagine how much trust this has built up with the locals. And knowledge at almost no cost.

All this achieved while you are really being asked to take a walk with your *nana dadis* (grandparents). Forget all that, just imagine the impact of a

biodiversity ripple in the whole country if such a contest would discover dropouts who can be tapped at the right age, instead of heading for a frustrated future in crime and a menial job far away from home. What the discoveries would be like in human, floral, and faunal terms.