



# CREATING ARAVALLI BIODIVERSITY PARK, GURGAON

## Vijay Dhasmana

The story of how the Park took shape is edifying and raises interesting issues. There is lots to take away from the well-intentioned mistakes we made and the insights we gained.

I first heard of the Aravalli Biodiversity Park in 2011 from Pradip Krishen, a friend and mentor in the field of native plant gardening. He asked if I was free to work with a small group of people—a citizens' initiative—who wanted to plant 'a million trees' and create a nature park on an old mining site at the edge of Gurgaon. It sounded interesting but I hadn't done any 'rewilding' work on such a scale and was not sure how or if I fitted in. Pradip said he had met and liked the core group and promised to hold my hand if I needed support. He said there was a real opportunity to put into practice a strategy of restoring this area with native plants.

On my first visit to the Park site, I drove up MG road until I came to the boundary of the Park, marked by a striking gabion wall decorated with a motif that looked like a stag's antlers. I learnt later that this was the work of Atal Kapoor, an architect who was one of the moving spirits behind the citizens' initiative.

The site itself was bleak, almost forbidding. A former mining site—for quartzite rock and its orange, gravelly degrade, known as 'badarpur'—there was hardly any cover except for some straggling, invasive vilaiti keekar (*Prosopis juliflora*). Mining had been banned and had ceased several years earlier, though the scars of extraction were still raw and ugly. It was April and there were no grasses or shrubs to relieve the desolate scene. My heart sank a little as I walked around, taking it all in.

Even at this early stage, civil works were already under way.

Apart from the boundary wall out in front, a stone amphitheater was inching towards completion and two kinds of concrete pathways for jogging and biking were being laid out. Some waterbodies were being excavated. Who was guiding all this work?

'Iamgurgaon' (IAG) was (and still is) a voluntary group that came together 'to awaken a responsible, aware and vigilant populace in order to make Gurgaon city a better place to live in.'

Three determined women: Latika Thukral, Swanzal Kak Kapoor and Ambika Agarwal started the NGO and were trying to see if they could work with the Municipal Corporation of Gurgaon (MCG) to make the new millennium city more liveable. Atal Kapoor (Swanzal's husband) was in charge of steering the civil works and designing in this initial phase.

IAG must have sensed early on that this large, empty wasteland on one edge of Gurgaon was vulnerable to encroachment or to being turned into a dumping ground and proposed to Municipal Commissioner Rajesh Khullar in 2009 that it should be developed into a Park. Khullar responded warmly to the idea and asked for proposals.

The architects in IAG then went to work.

In the earliest proposals and drawings, the Park was visualised as a 'bio-preserve', a water conservation zone and a recreation area. Visitors would be able to choose between three kinds of Trails—a Recreational Trail laid out with restaurants, a nursery, flower park, butterfly enclosure and amphitheatre. An Ecology trail would thread its way past a biodiversity interpretation zone, geography plaza, geomorphology garden and a sustainability park. A Heritage trail would connect cultural sites and a sacred meditation grove and so on. It sounded trendy and ambitious. Perhaps a touch too ambitious. But I was more interested in what and how they wanted to plant.

Detailed presentation drawings were made and proposals were sent to the MCG. While MCG looked for ways of funding the civil works, Commissioner Khullar flagged off essential infrastructural work such as the making of a boundary wall, parking lot and concrete pathways, with IAG supervising and providing designs.

Planting up of the Park was assigned to the Haryana Forest Development Corporation (HFDC) in 2010. IAG invited



citizens to participate in the planting and the first avenues inside the Park were lined with Brazilian jacarandas, Australian bottlebrush trees and Madagascan gulmohars. The planting scheme took off on this misguided note, with (mostly) exotic garden trees for a dry, rocky wasteland.

There's nothing surprising about HFDC's choice of species. This was and continues to be par for the course. This is how the Forest Corporation—all Forest Corporations in this country—'thinks' and works. There's no looking to find a match between the landscape being planted up and the choice of plant. Ultimately, all such agencies just pick an assortment from the tired and limited stock of mostly ornamental trees and shrubs that nurseries have on offer.

At some point before the first season of planting up—and I'm not entirely sure why IAG became concerned—the IAG team approached Pradip Krishen for advice. He said firmly, 'Go strictly native'. He had been restoring a large rocky tract in Jodhpur and had achieved gratifying results by using only native plants from rocky parts of the Thar Desert.

Let me take a minute to explain that a 'native' plant isn't just a plant from a 'native' place. If you plant a jamun from Delhi's moist bangar zone on Delhi's stony Ridge, it's not going to survive. It's not enough that the moist zone is located in the same city. Native plant gardeners look for precise matches. They're looking for characters in a plant that will enable them to survive in a particular set of circumstances. They're looking for a survival kit that has been honed by thousands of years of evolution.

A native plant for the Aravalli Biodiversity Park is a plant that is capable of growing in quartzitic rock, in the climate of Gurgaon, with only a short rainy season as the only time when it will be watered. If a plant is not capable of looking after itself in its new home (once it is 'established'), someone has made a mistake in choosing it.

In more ways than one, native plant gardens focus on creating habitats of appropriate plants, not on planting trees. It's all about ecology.

In 2011, the new MCG commissioner Sudhir Rajpal suggested that Gurgaon's corporates be invited to support the planting and upkeep of the park. IAG came forward eagerly with proposals to engage businesses and citizens in this initiative.

As the rains of 2011 approached, IAG hatched a plan to plant a 'million trees' in Gurgaon starting with a plantation drive that would lift off from the Biodiversity Park. People from all walks of life were invited to come and plant trees in the Park. I hadn't quite hit my stride yet but was shown a planting list and was assured that 'a lot' of native species were being sourced from the Punjab. (Though I did wonder: 'Really? Where in Punjab'?!)

Nurseries in India, even forest nurseries, don't usually raise or stock forest species. They don't think that this is their remit. As it turned out, what arrived from the Punjab by the truckload was trees like neem, pilkhan, peepal, katsagaun and seesham, instead of chamrod, salai and dhau that I had been led to expect. Hundreds of people turned up on our first planting day. We had little of any value to offer them to plant, but we went through the motions.

Two more days of August in 2011 were slated as plantation days when much larger numbers of people were expected to join the planting drive. We desperately ransacked forest nurseries in Rajasthan and Haryana for just a few basic forest species such as ronjh, kummatth and goondi and ended that first season with impressive participation from corporates, schools and individuals. But it was clearly time to review our plans and how we wanted to achieve them.

I'm not sure if I'm right, but I suspect the reason why MCG's initial grandiose plans began to falter was because they would have cost too much, possibly in excess of 20 crores. MCG did not manage to raise that kind of funding and about this time, IAG itself began to wonder if all that building and cement were such a 'good idea' in a nature park.

The change of attitude and strategy did not come about quickly. There were debates and discussions. We visited Mangar Bani nearby and drew inspiration from its startling loveliness. Here was the natural flora of the rocky Aravallis in all its glory, almost at our doorstep. Mangar Bani was saying to us, quite clearly, that this is what you can achieve if only you choose the right species. We went back again and again to Mangar Bani. It became like a touchstone. In the end, all of us agreed that our primary task was to create a native Aravalli rocky landscape, with its full panoply of plants—trees like dhau, kummatth and salai, lots of shrubs and the full range of ephemeral grasses that spring up in the rains. What happened in the end was a realisation that emerged







out of a slow process—IAG began to see that it wasn't about planting a million trees. It was about creating a landscape and a habitat that was in harmony with the plants that grew in it. It felt like we had crossed a major milestone!

We came up with an initial list of about 200 forest species native to the rocky northern Aravallis. Some of them had disappeared from view, but there was enough evidence to know that they were once present in our region. We got a stamp of approval from Pradip Krishen, and some additional suggestions. Now we had to get hold of the seeds of all these species, and somehow wrest control of the planting up from the Haryana Forest Development Corporation.

When the next fruiting season began, we mounted a massive collection drive for seeds and cuttings by visiting wild and semi-wild areas near and far.

My special task was to try and understand where each kind of plant would be most 'at home'. It may not seem obvious, but even a place like the Biodiversity Park is made up of a mosaic of small micro-habitats. Some plants are 'generalists' but most plants—more so in arid or stressed environments—specialise in where they are best adapted to live and do well, in different kinds of sites such as the foot of a hill or a hollow where there is sandy soil or a well-drained slope.

This is what I tried to observe and learn about in all my travelling and seed collecting. Our scientific 'Floras' are not very good at teaching you about what sort of conditions plants require. I was determined to learn as much as I could by observation. dhau (*Anogeissus pendula*) grew on steep rocky slopes, salai (*Boswellia serrata*) on the shoulders of hills, babool (*Acacia nilotica*) only where the soil is deep and of good quality, with water close to the surface. The idea was not to make this park into a dense woodland but to create diverse habitats, including grasslands that would support varied forms of life.

Easier said than done. When planting season approached, we found we were competing with several people who wanted to do some planting on their own. The problem was that they wanted to plant all the wrong species, such as trees that would require constant watering in the dry season. Or trees that couldn't possibly survive for two seasons in rocky soil. One bumptious gentleman arrived with 200 peepals and pilkhans and shahtoots, and was angry when we tried to dissuade him from planting them in the Park.

Pradip Krishen has looked carefully at how the Central Ridge in Delhi was planted up early in the twentieth century. No native species was used, not a single one! Eventually, all of them perished as soon as watering was withdrawn, except for vilaiti keekar (*Prosopis juliflora*) which went on to become an invasive monoculture on the Ridge (as elsewhere).

How does one tell well-intentioned people that this kind of thing is bound to happen if you don't choose your species carefully? How do you instill and disseminate good sense in a population that thinks it knows what is good to plant?

Thus far, IAG had been working without any kind of formal Agreement with the MCG. All of us in IAG saw clearly that we needed to enshrine the native plant strategy in a formal agreement and this was done in 2012. MCG ratified the goal of making the Park into a City Forest. IAG was formally assigned the tasks of carrying out conservation work in the Park, setting up a nursery of native plants, and doing whatever research and surveying was necessary. We were given eight years—from 2012 to 2020—to implement these tasks.

There were plenty of problems. Villagers living on the periphery wanted to bring their goats and cattle in and we didn't want them to. There were encroachments by DLF Phase III house-owners too, who had carved out neat little private gardens and barbecue squares by backing illegally into the Park. Neelgai were jumping in with impunity and nibbling away at our new dhau plants.

Slowly, and with great support from Commissioner Rajpal, we tackled these problems. We reached an agreement with villagers on the periphery to keep one half of the Park open for grazing and fuelwood collection. MCG rolled up its sleeves and removed all the encroachments from inside the Park. We tried to reason with the neelgais but eventually had to improvise neelgai-proof thorn-fences around our most important trees.

And still, the free advice kept on coming. "Arre aam ke ped lagao, bhai, phal ke ped lagaane mein kya problem hai? Yahan tho amrood aur kela aaram se ug jayenge!" Things are slow in dry, rocky places. The growing season is restricted to a precious few weeks in the year and we knew we had somehow to hold out for a few more years before we could offer clear evidence that our approach and our method was paying off.







LAG, spearheaded by Latika, took the lead in involving citizens, children and Gurgaon's corporates in building support for the Park and the work we were doing. The scale of our nursery work expanded exponentially and was funded entirely from donations. Corporates such as Genpact, KPMG and Sentis became champion doers and believers in rewilding the Park. At this point, it wasn't the planting strategies or funding that demanded attention so much as the future of the Park.

One day in 2013, we heard that the Mayor of Gurgaon had just returned hugely impressed from a visit to Singapore and had proposed that the Park should feature a Night Safari, Singapore style. At this point, we had a new administrator who seemed to have little sympathy with what we were doing. A few months later, we heard that MCG's Commissioner had hired a consultant to institute a 'world class' Wellness Centre and Spa inside the Park.

It is hard to convey just how disheartening all of this was. It was as if this large space at the edge of Gurgaon had suddenly become everyone's football, to be kicked around in the direction of any cockeyed idea which caught someone's fancy. We had spent over four years growing the Park, only to see it bouncing into completely untenable territory because we had no control on decision-making.

Of course we put up whatever resistance we could muster. A delegation of twenty 'influential people' barged into the Commissioner's office and expressed strong opposition. Flustered, he gave an assurance that 'the sanctity of the place won't be disturbed'. To our immense relief, he was transferred not very long afterwards and his idea(s) went with him.

But a sword of uncertainty still hangs on the Park's future. We have all become only too aware that the MCG is not bound by any charter or commitment to keep this nature park intact. Everything depends on the attitude and way of thinking of the Municipal Commissioner or someone higher up. If he wants to stop our work and fund the making of a bubblegum Disneyland, nothing can stop him except for public opinion.

Our comfort stems from the immense support we have received from the people of Gurgaon. In the last seven years, fifty-eight businesses, more than fifty schools, thousands of children and citizen from all walks of life, have come to plant

about 100,000 plants of 180 species in the Park. They have all become stakeholders in the Park's future.

Today, the Park showcases more than 300 species of plants, many of them reintroductions to Haryana. With its diverse microhabitats, the Park has become a haven for 175 species of birds, making it one of the richest birding habitats in Delhi's NCR. Animals such as the neelgai, jackal, palm civet, porcupine, hare, various snakes, lizards and skinks are thriving in the Park. This is even truer of butterflies, moths, beetles, bugs, aphids, ants and spiders.

Programmes to engage the city with this wilderness are taking shape. Periodic nature walks have become hugely popular. A programme to involve school children with nature awareness is going great guns! Corporates find enough engagement in the Park for team-building or pure volunteering. You can often spot business teams cleaning up garbage, composting leaf litter or volunteering in our nursery. Gurgaon Utsav, a cultural programme organised by Art foundation has become an important event in Gurgaon's cultural landscape.

The Aravalli Biodiversity Park is well on its way to becoming an ecological heritage site. It still has a way to go before it is a mature forested landscape. But it tells a story of one of the only eco-restoration events in our country where citizens have done so much to bring a natural forest landscape back to a city.

Vijay Dhasmana is an ecological gardener who specializes in 'rewilding' projects that bring back natural flora and fauna into landscapes that have become severely degraded. He has been curating a 380 acre site called the Aravali Biodiversity Park in Gurgaon, Haryana, where he has created a remarkable nursery of plants native to the rocky Aravallis, and is restoring it from a ruined quartzite mine into becoming the pride of Gurgaon. He is presently engaged in a few other rewilding projects in Rajasthan and Delhi/NCR.

