

Canopy bridges: The answer to fragmented forests?

Satchari's artificial canopy bridges, the first of its kind in Bangladesh, offer safe passage for primates and arboreal mammals



ABIDA RAHMAN CHOWDHURY

IN November 2020, a couple of young researchers at Satchari National Park in Habiganj tried their hands at something that was a novel concept in Bangladeshi wildlife conservation.

Wildlife researchers and conservationists Hassan Al-Razi Chayan and Marjan Maria hired help at Tk 1,500 a day (for a few days) to set up aerial rope bridges and connect two fragmented sides of Satchari forest. They based their initiative on the findings from studies conducted around the world, such as the much-celebrated case of Hainan gibbon.

Anyone who has been to Satchari National Park is painfully aware of just how fragmented the forest is. Decades of economic development, a road literally slicing through the forest, and increased human footprint have not done much good to the forest. Yet, this evergreen tropical forest in northeast Bangladesh is home to six of the 10 primate species found in the country. Many of these primates are either considered "vulnerable" or "endangered," a status from which graduation to something better is becoming increasingly difficult, if not impossible.

To make matters worse, according to data collected by Hasan and Marjan between 2015 and 2017, 14 primates died while crossing the road in Satchari forest, and 13 died in the same manner in Lawachara forest. The data is based on information collected from news reports and other sources. This raised alarm among researchers as many of the mammals that died were either vulnerable or endangered. Casualties included the likes of Phayre's leaf monkey which is endangered,

capped langur which is vulnerable, and slow loris which is endangered.

It was these casualties that gave birth to the idea of an artificial aerial rope bridge connecting the two sides of the forest. The Forest Department also supported the initiative, the researchers said. Marjan was the one who received a small grant from the US-based The Explorers Club to help move along the project. The researchers had to first decide on the material for the rope. Since it was targeted to help primates, some of whom can be quite heavy, they settled on using ropes that big ships use to set anchor. At least three canopy bridges were set up at different points in Satchari forest, connecting the two sides that have been created by man-made interventions. The team also set up camera traps to monitor whether any of the intended animals actually used their bridges.

It took some time, but in the first month of being set up, small arboreal mammals such as Irrawaddy and flying squirrels were seen using the rope bridges. It took some more time for the primates to warm up to the idea. But soon enough, camera trap footage revealed alpha males of primate groups leading the way, thus encouraging others to use the rope as well.

So far, the researchers have found five out of six available primate species in the forest using the rope bridges to cross the road. Other than hoolock gibbon, all five other primates, including the endangered slow loris, have benefitted from this set-up. It remains to be seen whether the hoolock gibbons will respond to this intervention, even though they are arboreal mammals and are known to travel between areas simply by moving from tree to tree.

In Bangladesh, this is a fairly new conservation method, and only long-term studies will reveal whether this is indeed a solution to fragmented forests. But studies in other countries, such as the case of Hainan



A squirrel crosses from one side of Satchari forest to another using one of the rope bridges installed last year to facilitate safe movement for primates and arboreal mammals.

PHOTO: COURTESY

gibbons in Hainan Bawangling National Nature Reserve in China, have shown promise. According to an article titled "Rain Forest Canopy Bridges Aid Slow Lorises, Gibbons and Other Threatened Species," published in the *Scientific American*, aerial bridges have been used in Peru, the UK, India, Kenya, Brazil, Australia, and other countries to help a diverse groups of animals, ranging from marsupial gliders and squirrels to sloths and capuchin monkeys.

The work centring Hainan gibbons in China also points to a growing body of evidence proving the usefulness of artificial

bridges to help arboreal animals cross fragmented landscapes to access habitat and unite populations, the article says quoting Dr Kylie Soanes, a conservation biologist in the University of Melbourne, Australia. And we now know that the footage from camera traps in Satchari have shown small arboreal mammals and primates using this aerial rope bridge to cross the forest.

This can be replicated at other forests in Bangladesh. For example, Madhupur forest, where a good population of rhesus macaque and capped langur is known to exist, could benefit from such rope bridges, says Hasan

Al-Razi Chayan, one of the researchers who implemented the initiative in Satchari. The Tangail-Mymensingh highway cuts through the Madhupur forest at the moment. Forests in Chattogram, too, have become fragmented. Hasan's observation includes a population of gibbons in Kaptaimukh beat forest, who could use such a connecting bridge. According to Hasan, a river divides the forest into two, and there is a gibbon population on both sides. If ropes or bridges could connect both the sides, then it would ensure the gene flow, and a continuous variation will exist—thus making sure there is genetic diversity among the population.

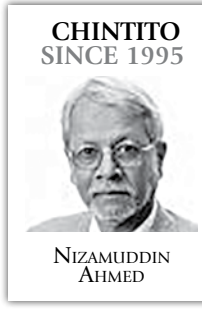
But before going about and replicating the same idea everywhere, studies need to be conducted to find species-specific solutions. What works for one species or habitat—according to Rachel Nuwer, author of the aforementioned article in the *Scientific American*—may not be applicable for another. For some, a simple rope bridge may work, while some others may need lattice bridges.

The idea of artificial canopy bridges is already being modelled in Lawachara National Park, which is located in Moulvibazar and is a forest similar to Satchari. The researchers and conservationists of that project, which was initiated in September this year, are hopeful that their canopy bridges will help hoolock gibbons.

Regardless of which animal uses the rope bridges for safe travel, this is a step forward in the right direction. In an increasingly divided and changing forest scape, it is important to bridge the gaps. Much like we do in science, in human lives—connecting cities and towns with highways and air passage—to keep the flow of genes, we must facilitate natural migration and movement to make sure that the remaining wildlife continues to exist and flourish.

Abida Rahman Chowdhury is a journalist at *The Daily Star*.

Architects are not 'others'



CHINITO SINCE 1995

I have always resented the common belief (due to fabricated propaganda, plus the romanticisation of an emperor who had seven wives) that Samrat Shahjahan "built" the Taj Mahal. I assume—only because I have no evidence—that the

Mughal emperor did not even touch a single brick, nor did a speck of sand soil his bejewelled fingers, when the monument was built. One can only imagine the umbrage suffered, obviously in silence, by the actual architects and engineers, the masons and the craftspeople.

That was not the only time credit for creativity was misplaced. More recently, the Jatiya Sangsad Bhaban fell victim to an identity mix-up. Did you know that it was designed by "others"? Preposterous, indeed, but sometimes there are mechanisms that can twist facts and misguide the unsuspecting.

In order to decipher what I said, we need to first understand the honour that professionals embrace for their expertise gained through knowledge, training, and hands-on experience.

In 2004, I was commissioned as the architect for the 480-bed hostel at the Military Institute of Science and Technology (MIST)—to accommodate both boys and girls. When it came down to drawing an agreement with the Military Engineer Services (MES), we discovered that we had to sign the document as a contractor. Defending the dignity of my profession, I explained to them that doing so would be demeaning to both the contractor and the architect. "Please change it," we said. We sat there for a couple of hours while the agreement was retyped, "contractor" was replaced with "architect," and the correct contract was signed.

It pains me that after seven years of rigorous studies and on-the-job pedagogy, after architects have contributed to nation-building for over 50 years, and after an architect had the privilege to design *khod* Passport Bhaban, we are reduced to the category of "others."

Physicians prefix their name with "Dr," as do doctorates. Engineers are introduced as "Engr," and some lawyers as "Adv." But architects, now "Ar," may soon have to prefix their names with "Otr."

are people with various job descriptions, and several dignitaries are included as well. And—you guessed it right—architect is not in the long roll of honour.

The options include numerous occupations and vocations, trades and jobs. Lumping them all together is unfair to professionals; acquiring this identity requires advanced education and proficiency, as well as conducting yourself by a code of conduct, framed by a responsible professional body. Such a basic error! Since the government

Our passport application form needs to be amended to generalise an applicant's employment status. Be it a profession, trade, vocation, job, or even idle time—the information of one's livelihood could be sought under "occupation."

Going through the list, I am at ease to find that we architects have the choice to tick the box of "artist," because architecture is a lot about art. The majority of us are in private practice, but we could also mark ourselves under "business." We sometimes clean our desks and our computers, so "cleaner" could be an option. Some architecture graduates are qualified as "pilots."

I can sew a button, so a "tailor" I could be. We have to often nurse our parents and children. By that logic, we can choose "cook," "driver," "guard," "fisherman," "labourer," "mechanic," "painter" or "sweeper" from the list. Covid-19 has given us some additional practice as a "barber" as well. And, as a *Barishaila*, I am almost a "boatman." But, I cannot claim to be an architect!

Some of us have to double as a "housewife." A few of us are PhD "doctors." "Farming" is a long shot, but we can call them landscape architects. The "government, semi-government and autonomous" offices employ quite a good number of us. Obviously, several among us have "retired," so that too could be ticked—as could be "retired technocrat." We have architects who can be "permanent officers" in autonomous and nationalised organisations. All these options are available on the bizarre list in the passport form.

Many architects are "project employees." "Teaching" is our passion, as we have to pass our knowledge on to the next generation as professionals. "Unemployment" is a given option, but not too common among us. Being "dependent" of a diplomat or of a non-diplomatic official/staff in foreign service is always a possibility. The officers who drafted the form also goofed up on the gender issue by including "washerwoman" and "salesman."

Besides the fact that women do the washing too, architects by nature are salespersons, selling their designs. As for "unknown," well, we honestly cannot choose that because we know who we are.

How and when "politician," "student" or an entire body—"satuary" (spelt so in the form)—became professions needs further inspection. Perhaps they meant statutory, under which "president," "prime minister," "speaker," "minister," "chief justice," "member of parliament," and "member of local government" could have been included, instead of each being itemised as professions.

Some other occupations on the list are: "accountant," "banker," "barrister-at-law," "blacksmith," "contractor," "engineer," "journalist," "lawyer," "merchant marine officer," "porter," "potter," etc. That only goes to show how detailed the list is. Unbelievably, "bachelor" is also a choice. The site differentiates between a judge and a justice, me lord! With so many openings available, the experts perhaps decided that including architecture as a profession was not necessary.

However, if you're being really creative, the reason for leaving architecture out is not difficult to understand. Perhaps a civil servant failed to get a chance to study architecture. Or someone courting a lady architect was rejected. Maybe an architect badly designed the house of a decision-maker, or asked for their fee repeatedly.

Seriously, though, the Institute of Architects Bangladesh (IAB) should urgently persuade the passport office to enlist architecture as a profession. According to the posts on social media, this remains a repeated election pledge by IAB candidates, followed by inaction. Seminars and souvenirs, picnics and presentations, competitions and cruises are all very fine, but safeguarding the members' interest and well-being will help IAB transform "others" into "architects."

Dr Nizamuddin Ahmed is an architect, a Commonwealth scholar and a fellow, a Baden-Powell fellow scout leader, and a Major Donor Rotarian.



Could architects get some recognition in our passport forms, please? PHOTO: COLLECTED

Our E-Passport Online Registration Portal requires an applicant to declare one's profession. It is pertinent to note here that a professional can be, for instance, a lawyer, and his profession is practising law. But the passport form lists 61 categories of not professions, but some professionals; the rest

portal is seeking to record the applicant's profession, the list should have had categories such as accountancy, banking, teaching, etc. Despite architecture being an established profession, it is not listed on the website, creating a bundle of confusion and exasperation.

QUOTABLE Quote

AUDRE LORDE (1934-1992) American writer

I am not free while any woman is unfree, even when her shackles are very different from my own.

CROSSWORD BY THOMAS JOSEPH

ACROSS

- 1 Strong winds
- 6 Can't stand
- 11 Banded rock
- 12 Patriot Allen
- 13 Sorceress of myth
- 14 Mislead
- 15 Wrap up
- 16 Cheep
- 18 Lyric poem
- 19 Easy victim
- 20 Steamed state
- 21 DEA agent
- 23 "Grease" greaser
- 25 Tolkien baddie
- 27 Clinic nickname
- 28 Underway, to Holmes
- 30 Music's Lady —

DOWN

- 1 "Now we've got a competition!"
- 2 To-do list
- 3 Anne Tyler novel
- 4 Seine season
- 5 Theater units
- 6 Rooftop landing site
- 7 Fighting
- 8 Anne Tyler novel
- 9 Canteen or cafe
- 10 Sleep sound
- 17 Bankroll
- 22 Magnon lead-in
- 24 Egggy drink
- 26 Meal makeup
- 28 State without proof
- 29 Part of Mao's name
- 31 Over-charged
- 32 Little dears
- 33 "Beat it!"
- 35 Painter Degas
- 38 Neighborhood
- 42 Galena, e.g.

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BEETLE BAILEY

YESTERDAY'S ANSWERS

S	L	I	O	S	H	A	V	E
L	A	I	N	S	T	O	L	E
O	G	R	E	W	A	I	L	E
B	O	A	S	T	E	R	S	
S	T	R	E	E	T	V	I	E
C	O	O	P	S	B	U	I	L
A	R	M	M	A	P	L	E	S
R	O	A	S	T	E	R	S	
G	A	L	O	O	T	A	R	E
E	X	E	R	T	S	R	I	N
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BY MORT WALKER

BY KIRKMAN & SCOTT