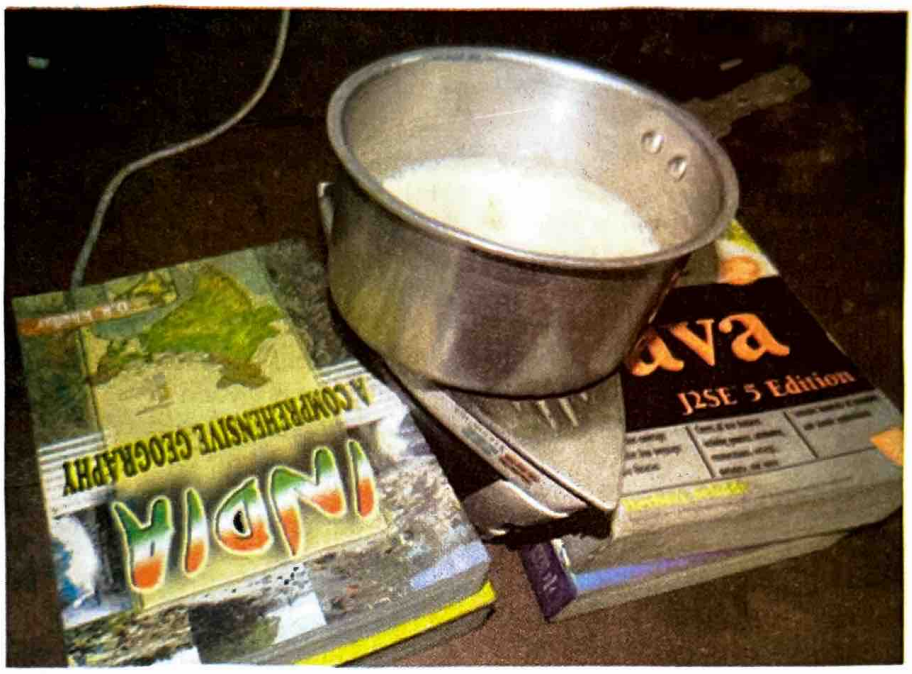
Jugaad: Like it or not, it is here to stay

Application of tricks that make things work. Haven't you used one to solve a technical difficulty in the simplest way? ■ by Wg Cdr DP Sabharwal



Bihar Chief Minister Nitish Kumar won the trust vote in the State Assembly with the help of four votes from the Congress, four from independent legislators and one from CPI after his party and the BJP, who had been allies for the past 17 years, parted ways. Boycotting the trust vote, BJP leaders claimed that the trust vote was a farce as Nitish had got the required support by *'jugaad'*. Some other BJP spokesperson said that Nitish Kumar, under the influence of the Congress, had perfected *'jugaad* technology'.

Whether it was *jugaad* or not is for every individual to decide. However, one thing is definite that *jugaad* is by now an accepted phenomenon worldwide. It is inevitable that, sooner than later, this word, like many other Hindi origin words, such as *chutney, raita, puri* and *roti* from food-stuff; dacoit, pundit and guru from individuals; Jodhpurs and *pyjamas* from clothing etc, would find official recognition in the English language and be introduced in the English dictionary.

Jugaad is a Hindi term which, in the simplest of simple terms, means 'tricks to make things work'. In a literal sense, it means an improvised arrangement, which needs to be used because of lack of resources and implies an innovative fix or a simple work-around. The term is also applied to creative or innovative ideas providing a quick, alternative and unconventional way of solving or fixing a problem.

There is a song from the movie *Fukrey* sung by Kailash Kher. The lyrics by Munna Dhiman are a treat to the ears and the mind alike. One of the couplets goes like this: *Khud ko bachana hai to...* Future *banana hai to... Yahan wahan se, jahaan jahaan se, Jo ukhde ukhaad.. Kar le jugaad karle, karle koi jugaad...* (If you wish to save yourself and make a future for yourself, then, from here and there, in fact from anywhere, remove and pluck whatever you can. Yes, you have to do some *jugaad!*)

The tainted side

In the recent past, 14 May to be precise, the Supreme Court of India described *jugaad* as a 'menace to public safety'. The court was referring to the word in relation to the concept of quick-fix improvisation, where most of the vehicles are fitted with diesel-powered irrigation pumps, thereby causing a lot of pollution as well as safety hazards.

The term is sometimes pejoratively used, no doubt correctly, for solutions that bend rules in today's political scenario. Various scams, that have hit the nation, in the recent as well as not-so-recent past, are all due to such bending of rules or through *jugaad!* Land-grabbing and illegal mining are just two of the areas, where this concept has been applied to the hilt.

The recent 'Himalayan Tsunami' in Uttrakhand, where thousands of people lost their lives, homes and livelihood, is yet another case that paints the ugly side of *jugaad*. It resulted in mindless construction with utter disregard for ecological balance.

The biggest political *jugaad* in Indian democracy can rightly be attributed to Lalu Prasad Yadav, the erstwhile chief minister of Bihar. When forced to resign, in 1997, following escalating corruption charges relating to the 'fodder scam', he installed his wife Rabri Devi as the chief minister.

This was considered as the most unexpected solution in the entire

Indian political history. Rabri was a traditional housewife, had neither interest nor any prior experience in politics and, above all, was nearly illiterate. This move allowed him to continue acting as a de-facto chief minister – with his wife a ceremonial head – and thus eliminate any possibility of investigations!

The useful side

The common man in India is used to *jugaad* in day-to-day life. Frequently-used phrases like *'kuch karo* (do something)' and *'chalta hai* (does work)' illustrate the application of *jugaad*. A few decades back, when television antennas were costly, people used bicycle rims with spokes as antennas. Incidentally, these had better reception than properly-designed antennas!

In small towns, one can see roadside tea-stalls using the steam of a pressure-cooker through a rubber-pipe to substitute an espresso coffee-machine. There are makeshift vehicles, where a diesel engine has been strapped onto a cart in place of bullocks. Perhaps, the two most common applications of *jugaad* seen all over the country are:

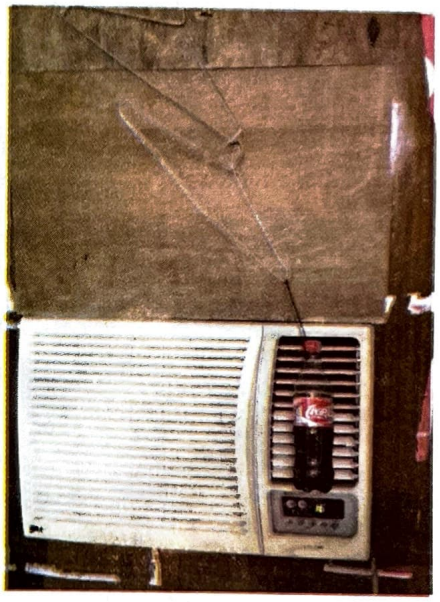
- Use of empty pickle or soft drink bottles as containers for spices, pulses and water in the kitchen.
- Giving missed calls to communicate messages as per a prefixed code or understanding, thus saving the call-charges.

The scientific community, however, is not appreciative of the concept of *jugaad*. Some scientists, who support technology innovation, believe that this concept does not deserve encouragement because it primarily disregards safety. However, the vast majority, the world over, has come to accept and in fact appreciate it, contending that such improvisations cannot be dismissed as they have at times helped achieve objectives even in high-technology domains.

The first such case of *jugaad* can be traced to the history of the Indian space programme. One can see pictures on the Internet, where the nose cone of a rocket at Thumba was carried on a bicycle carrier in the absence of a proper vehicle for its transportation. In yet another instance, the country's first experimental communications satellite called APPLE (Ariane Passenger Payload Experiment) was ferried a short distance on a bullock-cart before its launch via a European rocket, in 1981.



***Jugaad* for expressomaker.**



Chill coke *jugaad*.

Universal acceptance

The Indian concept of *jugaad*, which basically refers to a 'anything goes' attitude, has acquired a new meaning in management and is increasingly being accepted as a management technique. It is being recognised as an acceptable form of 'frugal engineering'. A stage has already arrived, where analysts and academicians talk of it the same way they spoke of Japanese style of management during the 1980s.

Many companies in India are adopting it as a practice to reduce research and development costs. In addition, it is being applied to any kind of creative and out-of-the-box thinking, that makes a project workable. The following examples would substantiate this point.

Western Railways were to convert its entire network, between Churchgate and Virar, from 1,500 volt DC to the more efficient 25,000 volt AC, in 2011. However, the engineers encountered immovable obstacles of raising the height of about 10 bridges en route. One of the bridges needed the height to be raised by 32 centimetres, which was a particularly difficult proposition, since a mistake of even one cm

would have led to the collapse of the bridge.

Thus, instead of raising the bridge, they sought permission to simply lower the level of the tracks under the bridge. The task was achieved safely and at much less cost!

Ever since, *jugaad* has become an operative word for the cash-strapped Railways. The fact is, it has made it to the Railway Ministry's official dictionary, where it is written thus: Jugaad: condonation — the procedure of allowing the bypass of rules provided safety is not affected.

Scanning Tunnelling Microscope (STM), India's first home-made instrument that allowed scientists to probe surfaces at the atomic level, was fabricated during the 1980s through a fair amount of *jugaad*. A discarded refrigerator, stepper motors from junked computers, tubes from car tyres, and bungee chords were used to fabricate the first STM. Weights from grocers' shops, aluminium vessels from kitchens and bobbins from sewing-machines were also used.

Each component had a specific role in the instrument. The refrigerator, for example, served as an acoustic shell. The microscopes worked very well, and the scientists were able to publish research papers in leading journals.

Take your pick

To me, personally, *jugaad* has meant doing a thing or achieving end-results through unconventional means. I have been involved in many *jugaad* incident, directly or indirectly, and listed below are three of my favourites. Take your pick as to which is the best one.

In the early 1960s, as a child, I used to go to Haridwar with my parents during summer, a season for mangoes. It is a known fact that mangoes taste better when cold and refrigerated. Of course, there were no refrigerators there but my father had a way of feeding us ice-cold mangoes. He used to put mangoes in a *muslin* (thin cloth) bag, tie the bag and hang it inside the fast-flowing Ganges water that used to be really cold. Looking back, I think that was my rirst exposure to *jugaad!*



Scooter *jugaad* technology.

I read in the newspapers that 'telegram services' would terminate on 15 July. Thus, with a view to having and keeping a delivered telegram as a memento, I asked my father-in-law to send me a couple of telegrams. He sent two of them from Chandigarh, on 15 June to me on different subjects. None was delivered to me till 24 June. The very next day, I received both of them, computer-printed on a normal white paper and delivered to me in an envelope bearing stamps of Rs 5!

After serving in the defence forces for 20 years and, hence, eligible for premature retirement, I applied for the same. But the request was turned down on the grounds that I could not be spared in view of my excellent career-profile. When I sought the help and advice of a senior officer, he told me that the only way to get out of the service was to earn a bad report and miss the next promotion.

I adopted that unconventional route, though with great difficulty, since my bosses were not prepared to give a bad report to a presumably good guy. The *jugaad*, however, worked and I was able to hang up my uniform many years ahead of the scheduled time. ■

POEM

Last wish of an old lady

Age has writ wrinkles on her face
Dull as lead is her face
As bark of birches is her skin
Her eyes are dilated with pain.

Her days creep with painful slowness
For a long time she feels this restlessness
A sense of desolation and disillusion
Has overwhelmed and blurred her vision.

Her memory has melted away like ice
She wanders peacelessly in her house
Swoop upon her wistful shades of longing
To go to her childhood home with her belongings
To see her 2-year-old son in her dwelling
To talk, laugh and go gleefully playing.

One day, she hopes, she will flee
To her village, to see her son with glee
Where the river like silver thread runs
Merrily, merrily through the greens
Where the trees rustle and whisper
Where the moon beams rest like a cover
Where stars come down and glow
Like blossoms on the waves below.

— S. Sivarama Krishna Iyer