

With reasonable fire cover available to only about 10% of the land in the state, is it time for fire safety to follow public-private partnership model to ease the burden on the state government?

Fire

safety is an issue that affects each and every one of us. But in an urban area like Mumbai, which is so congested, it becomes all the more important, especially with high-rises, peak hour traffic, and a very high density of population.

It is at such times that a review of the policies governing fire safety gains tremendous significance. Obviously, it makes little sense building a skyscraper if you do not have adequate facilities to reach such heights either for saving people, or for dousing a fire with water or other fire retardants. Nor does it make sense to have a wonderful building, but whose access points are always choked making any approach by a fire engine a nightmarish impossibility.

The list of do's and don'ts suddenly becomes larger, both before a plan for construction is approved, and even after the structure has come up.

That is why DNA decided to bring together some of the most authoritative voices on this subject and sought out their views. The panel included (in alphabetical order): **DN Chaudhari**, advocate and fire consultant, Directorate of Fire Services; **MV Deshmukh**, director, Maharashtra Fire Services, Government of Maharashtra; **BK Katyal**, architect, Kudianavala Group of Companies; **Shashank Paranjape**, managing director, Paranjape Schemes Construction Limited; and **V Suresh**, principal executive officer, Hiranandani Infrastructure & Real Estate Company (HIRCO). The discussion was moderated by DNA Property coordinating editor **Vijay Pandya**.

Given below are edited excerpts:

DNA: When it comes to Maharashtra, where do we stand today in terms of fire safety awareness and preparedness?

Deshmukh: Out of 3,08,000 square kilometres of the geographical area of Maharashtra, the reasonable fire cover is available to only about 10% of the land. There are about 250 urban local bodies in Maharashtra and there are more than 10 special planning authorities, which include MIDC (Maharashtra Industrial Development Corporation), Cidco (City and Industrial Development Corporation of Maharashtra Ltd), MMRDA (Mumbai Metropolitan Region Development Authority) and so on.

Then there are authorities created by notification. The special townships that are coming up in Maharashtra are very good indicators of what we see abroad. For instance, new townships are coming up around Mumbai and also in Kalyan and Panvel. Then there are the SEZs (special economic zones) which are governed by a different set of policies. There are also the industrial corridors like the Mumbai-Pune Industrial Corridor and Delhi Mumbai Industrial Corridor (DMIC) which may have their own regulators.

Now, having this kind of growth, particularly in Maharashtra, when you have 250 urban local bodies and more than about 350 industrial areas, we need to do a lot. In fact, recently, we had a conference called the Fire Services Vision 2020. We had experts from national and international fire services and we took up 3-4 points which are very critical and have to be addressed. These issues that we have taken up and speak about at most forums comprise the four-pillar approach.

One is legislative reform. Earlier, there was no piece of legislation to regulate this gamut of activities. But we now have a full-fledged legislation which was worked on in 2006. This legislation gives the minimum fire safety standards for those prescribed in the National Building Code (NBC). Those were recommendatory in nature earlier; now they have become mandatory.

Then we thought that infrastructure also has to be developed. So we went to the government and said let us first concentrate on the municipal areas. We will speak later about the areas outside. So we did a 'gap' analysis and found that the city of Mumbai has a 50% gap in infrastructure and there are about more than 100-plus small towns. The gap varies from 50-100%. We put the facts before the government and they sanctioned Rs485 crore. It is called the Maharashtra Agnisuraksha Aayam or Maharashtra Fire Protection Mission. So the scheme was approved and there is work going on, including the development of 100 fire stations in these municipalities.

After that you have the human resource capacity building. We have developed the state fire

Mission possible: Maha-safety from fire



(L-R) Shashank Paranjape, MV Deshmukh, V Suresh, DN Chaudhari and BK Katyal at DNA Conversations held at the Directorate of Maharashtra Fire Services in Kalina -Puneet Chandhok DNA

academy in Kalina, Santa Cruz. It is one of the benchmark institutions in the country today, but we are not stopping with that. We have been sanctioned another 18 acres of land, where we are going in for an advanced fire academy. It will be state-of-the-art, where we will have live simulators, virtual training etc. Three sites have been shown to us. They are under consideration. We have a Rs50 crore grant for it and the GR (government resolution) is issued for an Advanced Fire Academy, in the vicinity of Mumbai.

We are also trying to introduce facilities for females; we want to recruit lady fire-fighters. It is a longstanding opportunity. We have recruited eight in Mumbai but it is not sufficient. We need equal opportunity. This is the case in the defence, police and other services. So why not fire services as well?

Lastly, mass education and public awareness is key. We are trying to reach every school in Maharashtra, every commercial mercantile building, every NGO, and it is a Herculean task. That is what has been formulated by a few team members and we are trying to implement it step-by-step.

There will now be a cadre for fire officers. If a person joins a C-Class Municipal Council, he has no growth. Naturally for 3-4 years, he may maintain his place, then he is not likely to sustain. So we want him to be promoted from a small municipality to a big one and then even to the corporation areas. At least if they come to B-Class Municipal Corporations like Pune or Nagpur and if they have an ambition to be fire chief there, they will try to keep abreast (of development, expertise and knowledge), and thus improve their profile, their personal appraisal, etc.

DNA: There are so many townships coming up, development is taking place at a rapid pace. Is the real estate industry, the developers, prepared to handle the new challenges?

Paranjape: No, they are not prepared. One thing is that with the new law, it is mandatory for a developer who is coming up with a township to have his own fire station, and also manage and maintain it. One part of the issue can be tackled quite easily - setting up a fire station. Now that is, I would say, fairly easy for a developer. He has an entire team and his expertise lies in creating infrastructure.

When it comes to the second part of manning that infrastructure and equipment - actually employing fire officers and deploying them for duty - that expertise is at present only with the government. Then there are grey areas. The government has in a way compelled us to come up

with a fire station. That is fine. But what happens if there is a fire in a house and if the door is locked. Do we have the authority to break that door and douse the fire? That authority is simply not there. There is no mention of that.

DNA: So you have the onus but you don't have the power.

Paranjape: Absolutely. These issues need to be addressed immediately. So, our suggestion is that we need to have public-private participation, where the developer has strength in creating these fire stations and buying equipment. The developers can actually support the fire services of the government by way of capital, by first infusing it and then meeting the recurring charges of maintaining these fire stations, which will be naturally paid for by the residents who are going to be using these services.

What happens then is an absolutely win-win situation. I feel steps should immediately be taken towards this.

Suresh: I have a slightly different take. I have been very actively involved, right since the beginning stages of the creation of the first portion of the National Building Code in 1970. We were happy when the 2006 document, the Maharashtra State Fire Protection Act, came into being. It was passed in 2006 and came into being by 2008. We incorporated fire safety aspects through the architects of the building, the structural engineers, the mechanical, electrical and fire planning (MEP) consultants. We want to incorporate this in all of our buildings.

When I say 'all', it refers to the integrated township, not just the residential part alone. It has got commercial office spaces for IT and IITs and office space for other financial services. Buildings are of various types and the nature of fire protection required for each one of those buildings is different. In an office, there are youngsters who move faster and are agile. But when you go to a hospital, there are sick individuals, young children or old people, so you require shorter distances, staircases that are easier to access.

You will be surprised to know that for the first time, fire rating for the beams, columns, slabs... everything, has already come. What is it that we can do to the building to make it fire-safe? That is called in-built fire protection. That is all that you can do in the case of various activities at residential spaces, offices, hospitals, schools, etc. what you can provide in terms of corridors, staircases, etc.

And more importantly, since these are all outlying areas, they do not have a fire brigade available immediately. But one can ring up the fire fighting office and

have a quick response time, where you have to assign response people. So how do you provide in-built fire protection? Well, you provide automatic sprinkler systems in every building on all floors. It will automatically spray water when a fire takes place. If we are able to provide that, it is a major support to the fire department. It is part of its vision to make Maharashtra a safe place from a fire protection point of view. So we have provided that in all our buildings at our Panvel project.

Deshmukh: Most other townships are doing this as well.

But the issue raised by Paranjape is relevant. The fact is that most of the states in this country have state fire services. The onus of providing fire protection in each and every nook and corner is the responsibility of the state government.

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ment. Now take the state of Karnataka, which has this PPP Model that has been proposed. They have over 14 fire stations and these have been handed over to the Karnataka Fire Force. But here my position is different. Here the day-to-day maintenance of the fire service in Maharashtra was earlier only with the municipalities.

We have brought in the concept of the licence agency. Now, through the new amendment which we are proposing, we are bringing a provision that all buildings would be audited by the same MEP consultants. We will pre-qualify them to work as auditors. Once in two years, they will audit such buildings and give corrective measures.

On our part, we will conduct some random inspection, or initiate action on some written complaint received.

Just to give more clarity on what is happening in Karnataka. The situation there is totally different from that of Maharashtra.

Karnataka has a unified state fire service organisation. The fire services are not with the municipality. So they have to make a very small policy provision. At Infosys City near Bangalore, Infosys itself has constructed a fire station and handed it over to the Karnataka government. The government has to only create the manpower and manage it. So they do not have any major policy issue.

With us, we have an island kind of approach. Each municipality has one fire brigade. Pune has one, then some nearby municipality has one. MIDC has one. Now the township is coming up and they should have one. Thus the structure is very heterogeneous in Maharashtra. The command has to flow from the state control room, where all services will have to obey. Because at that particular time, bringing that situation under control, giving relief to citizens or affected people, that becomes of paramount importance.

Katyal: For a few of the things, we have to think out of the box, starting with fire services. I find lots of times, we are chasing approvals from the fire department. I think instead of that, if we have the NBC, which is well-established, we look at the fire department as a regulatory body, not just one granting approvals.

Let the approval be given by the person himself. He has met with all the requirements; he gives the certification to this checklist, which is provided in the building code, which is the job of the regulatory authority or the government.

But the fire department has the powers to visit at random, see those installations whether they have provided or not and create a very strong punitive kind of provision. Let that transparency be provided in the system approval process. With that, we can reduce the workload on these people and help them do what it is they are supposed to do.

Now the second point I find, which we are missing, is the manpower plan. The shortage is mind-boggling.

Chaudhari: The checklist is fine. But somebody has to check it again if the work has been done. So the machinery under the state director's establishment would be necessary for that purpose.

Suresh: The NBC has a provision for the concept of self-certification, called notary architects and notary engineers. Like notaries, who do documentation for affidavits, the concept is there. You have some outstanding architects and engineers and builders wanting to do things the right way.

request comes to me, you get us a certificate from a licence agency that you have completed everything as per the code requirements and the regulatory requirements. So we trust that person. We do random checks as well. And even our approval is so detailed that sometimes people like it and sometimes people don't.

The first person who is responsible for making a building liveable and safe is the architect. We would like to have a very close interaction with the architects. Many architects do not know the provisions.

Suresh: It is not in the curriculum of the architectural five-year degree course or the engineering degree course. Not one has a fire safety or fire fighting subject.

Deshmukh: We have made one small note in the legislation that every owner or occupier, whose ever the person is, has to give a certificate once in six months to local fire authorities that they have got the system from a licensed agency and it is in good condition. Now we are going in for one more amendment. Instead of a licensed agency, if he himself wants to give the certificate, we are also opening up that avenue. If big builders have their own facility manager, their own mechanical engineers and can certify themselves, you should trust them on this.

Suresh: Once the occupancy certificate is given, quite often, what happens to the building one year, two years or ten years later? If you find the building unsafe, you can invoke the Unsafe Buildings Act. The NBC has a provision for periodic renewal to ensure that the installations are proper and in working order.

Chaudhari: There was a move to make the structural audit of a building compulsory every 5 or 10 years. A point was raised that in a township if a door of a flat is locked, who has the power to break open the door if there is a fire? Now the Maharashtra Act has the unique provision of a nominated officer. That power is with the director and the director has the jurisdiction of all the state. If a developer has provided a fire station in the township, he can nominate any qualified person from that township and that could be the nominated officer.

Deshmukh: Public private partnership should allow the provision of infrastructure by the infra developer and management by the government. This has to be brought into the policy. I am of that opinion.

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MV DESHMUKH
Director, Maharashtra Fire Services, Maharashtra govt

So how do you provide in-built fire protection? Well, you provide automatic sprinkler systems in every building on all floors. If we are able to provide that, it is a major support to the fire department



V SURESH
Principal executive officer, HIRCO

We need to have public-private participation, where the developer has strength in creating these fire stations and buying equipment. They can support the fire services of the government by way of capital



SHASHANK PARANJAPE
Managing director, Paranjape Schemes Construction Limited

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Advocate and fire consultant, Directorate of Fire Services

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BK KATYAL
Architect, Kudianavala Group of Companies