

LIFE AT THE END OF THE TUNNEL ! A Case Study on A Nine Day Long Rescue Operation

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The Realization

The enormity of what she was faced with had dawned on her. The young DC had witnessed the friction between the engineers of the construction company and Border Roads Organization (BRO) experts present and the ensuing chaos and confusion on the site. It was palpable in the divergence of opinions they had on how to start the rescue operation. To add to the pressure, standing atop the hill, she saw the steady stream of visitors of all kinds coming to 'see' what was happening. This was becoming a sort of entertainment spot which was extremely discomfoting. This was not going to be a vanilla accident related disaster operation. She realised, looking at the crowd which included officials, media, relatives of the workers, ordinary villagers amongst others that this would be a long operation and the stakeholders would only increase as the operation distended itself into time. Above all, the faith of the people in the administration had to be maintained to ensure that rescue work progresses seamlessly.

Background

A couple of days earlier on 12/09/2015, one of the tunnels on the under construction Kiratpur-Nerchowk expressway in Bilaspur, HP caved in trapping three labourers (ANNEXURE A).

There was no idea whether they were dead or alive. Some workers had claimed that they had seen the debris falling over one of the labourers. The DC had a series of quick on the spot consultations with her district team and also the engineers and geologists. The Army and NDRF had

been consulted – both had said they could contribute in the evacuation once the location and path to reaching the trapped labourers was established. No precedents existed in the country for such kind of a disaster situation, resulting in no agency wanting to shoulder responsibility for the same. There was no option but to lead the campaign herself. High amount of engineering input was required but along with that management of diverse stakeholders was more important. In a charged environment like this she would have to watch over things very carefully. She decided that she would only leave the site when the operation was formally completed – when the trapped labourers are found. Hopefully, alive!

The Key Decisions

How were the trapped labourers to be reached? Some engineers suggested drilling horizontally along the established path of the tunnel. Others felt that was not technologically possible and suggested the vertical route carefully negotiating a heavy drill through the lattices and concrete of the proposed tunnel ceiling. With no further time to lose and mounting pressure, the final approach was left to the DC. It was decided by her to start simultaneous operations, vertically and horizontally. It was further decided that immediate channels of communication would first be made by drilling around 4 inch diameter shafts, simultaneously machinery for making the 1m diameter shafts will be moved to the site for evacuation purposes **(ANNEXURE A)**.

The next challenge was that of moving the machinery. Drilling through hard rocky strata required heavy drilling equipment **(ANNEXURE B1)**.

The already existing machinery also had to be taken to the top of mountain. A long human chain was created for the lighter equipment **(ANNEXURE B2)**

Some additional heavy machinery had to be got from other districts within HP and from other States. Extensive liasoning was carried out

to ensure the fastest movement of this machinery.

The second challenge of actually making a transportation path to top of the mountain involved extensive liasoning with the forest department. Using heavy JCBs, the required path was created
(ANNEXURE B3)

The heavy machinery would reach only on the fifth day. In the meanwhile the vertical drilling with existing equipment to create a 4 inch diameter shaft started making slow but steady progress.

The Breakthrough

By the end of the fourth day, the drill broke through into its target. The DC suggested the use of a two way communication device. Using the expertise of a local entrepreneur, a two-way communication device was lowered down the drilled 4 inch wide hole to discover two alive human beings trapped in the tunnel
(ANNEXURE B4).

Standing non-stop at the disaster site for nearly 100 hours, the DC was personally overjoyed. Her approach had paid off. She personally spoke to the two trapped labourers and asked them not to lose hope and strength. It was obvious they were in complete shock. It also made the DC plan the deployment of doctors on the site for regular monitoring and for administration of food, along with a psychologist
(ANNEXURE B5)

The two workers confirmed that the third labourer had been buried by the debris, whether he was dead or alive was to be found out. As much as she knew that establishing contact was a big achievement, she also realised that a huge effort would be required for their evacuation. The media's interest and the local pressures were bound to increase with this news
(ANNEXURE B6)

Adherence to time lines was most important. It could determine life and death.

The New Challenges

The challenge now was to drill a hole with a one meter diameter so as to create a path through which the trapped workers could be lifted out. The news of this live evacuation mission spearheaded by a young lady IAS officer had started spreading. The hungry media needed constant updates for which a mechanism of regular media update was set up by the District Administration. At the same time, the villagers and families of the three workers started coming in truckloads and camping at the site. Instead of asking them to return, the DC took a decision to provide food and water to them. In some cases accommodation in nearby places was also provided. These were essential not only from a humanitarian angle but also strategically. First, it allowed them to view the administration as their ally. Second, the DC was clear that she wanted no additional work in form of a law and order problem as it would take their mind away from the task at hand. Any delay could have had a serious implication in form of death. A flash point was averted when CITU workers tried to give a class colouring to the entire disaster and started sloganeering against the government and company officials. The DC and her team were quick to respond by telling CITU leaders to join the rescue operation by helping them in the muck removal process inside the tunnel. She also volunteered personally to take them to the site inside. This approach of leading and communicating from the front disarmed many and neutralised the initial hostility which is characteristic of such a situation.

Emotional Challenges

While all this was going on, keeping the body in good health and mind in good spirit of the two workers had to be done very minutely. Food packets and artificial lights were lowered down to them. They were constantly spoken to and counselled by the DC herself. By the 8th day (3 days after being discovered), their spirits were very low. At times when it would rain, water would start accumulating down inside causing much concern for everybody. Such was the attention to detail

in this area, that a mobile phone was lowered down with the workers favourite songs so as to keep them optimistic and hopeful. By now, the DC was emotionally invested in the project. She had been sleeping less than four hours a day for close to 8 days. Her little two year old child was left with the household help, day and night. As a lady in a leadership role in such unforeseen circumstances, she had to prioritise the larger public good.

Closure

On the 7th day, the NDRF had joined the operation. With media glare increasing, the tendency of various organisations to claim ever greater 'credit' started showing. The DC was unperturbed. Forget anything else, her thoughts went out to the family of the third labourer who she felt could still be alive. Other two families still had hope to bank on. Respecting the public sentiments, she sneaked out for half an hour on the 8th day to pray to the local deity.

The drill had snapped when it was barely 4 meters from the cavity on the 7th night. After much effort and deliberation the drill was changed. By morning of the 9th day, the vertical shaft finally breached a cavity thus making the entry path ready. NDRF was now supposed to step in and evacuate. A caged structure was ready to be lowered down as a backup plan. The two workers were counselled and given a briefing through the lowered communication device. Sunglasses as protective eye ware were given to them since they had been in complete darkness for a long period. The media and relatives were also counselled not to ask them too many details since this was a post trauma scenario. Doctors were in position and so were the ambulances. By late afternoon of the 9th day, i.e. 21st September 2015, the first worker Maniram emerged flashing the victory sign. Satish came out soon thereafter. It was indeed an emotional scene. The doctors checked their vital signs which were perfectly normal thus indicating how well they had been monitored by the rescue team.

The young DC briefed the media and got public accolades for the same. However, she still kept on stressing the need to find the third

missing person – dead or alive. The operation continued for another 10 days after which sudden dangerous conditions inside the tunnel forced them to seal it and halt the operations. On being asked how he felt Maniram replied, “I have not travelled much in my life, but I can claim to have gone to Lord Yamraj and back”.

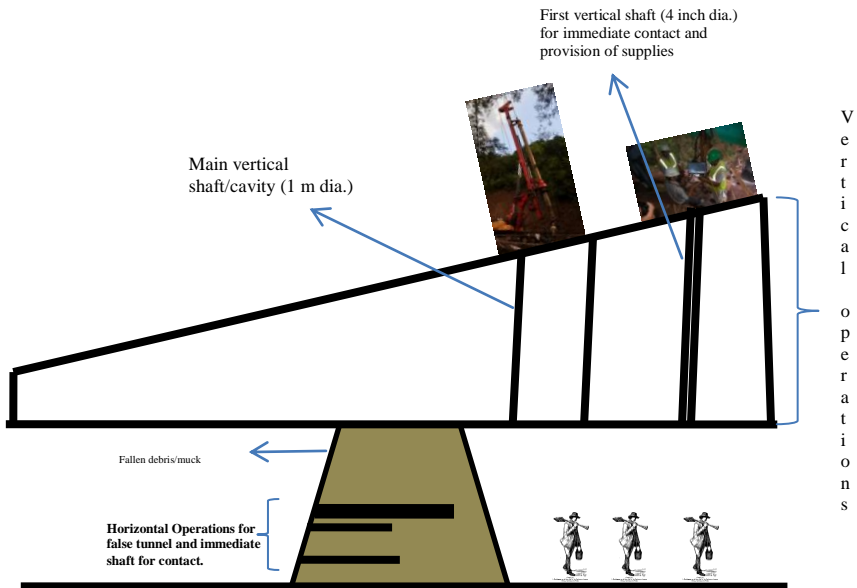
Epilogue

The DC continued in the District till July of 2016. As fate would have it, the body of the third person was discovered the same day as her transfer – a good ten months after the much publicised Tihra rescue operation. The Bilaspur chapter of the lady DC’s career was now truly closed.

The IAS officer in the case study is Manasi Sahay Thakur, an IAS officer of the 2009 batch borne on the Himachal Pradesh Cadre. She is currently serving as Director (Energy) and the Managing Director of HP State Civil Supplies Corporation in the Government of HP.

ANNEXURE A

Site of Disaster



GENERAL OUTLAY OF THE TIHRA TUNNEL RESCUE OPERATION

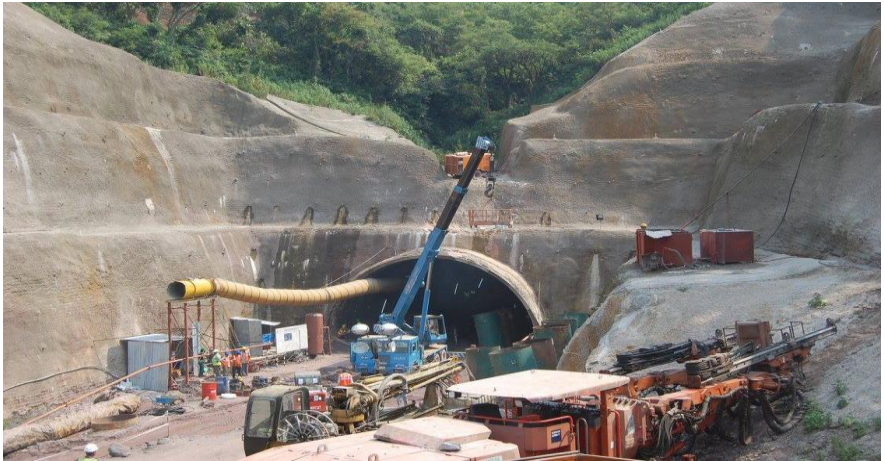
ANNEXURE B1

THE HEAVY DRILLING EQUIPMENT FOR MAKING THE VERTICAL SHAFT FOR EVACUATION



ANNEXURE B2

LIFTING OF EQUIPMENTS FOR DRILLING 4" DIA. SHAFT FOR IMMEDIATE CONTACT AND FURTHER CARRYING THE EQUIPMENTS THROUGH A HUMAN CHAIN



ANNEXURE B3

TAKING OUT ROAD THROUGH THE TOP OF THE TUNNEL FOR TRANSPORTING THE HEAVY DRILLING EQUIPMENT



ANNEXURE B4

FIRST CONTACT WITH 2 LABOURERS



ANNEXURE B5

TEAM OF DOCTORS MONITORING AND SUPPLYING FOOD ITEMS



ANNEXURE B6

MEDIA CORNER



