

Innovation by Design
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Module – 3
Start of section 3
Lecture – 15
Ingenious attempts: Users try to find solutions

So here we are what are the problems the jawans encounter?

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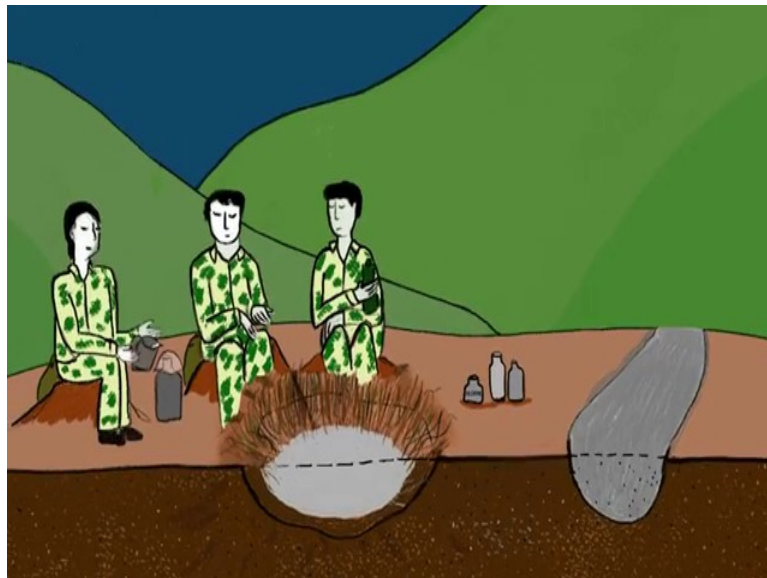
So, they basically are in hostile environment. When we went and met the CRPF jawans first time they give us these insights saying that we do not prefer to take from water bodies which the local communities are using. So, they prefer rain water, they prefer flowing water from the mountains over sometimes pond water available there openly. And then very critical issues of you know how you take that, how you store it, how you filter it comes into picture.

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For example during one of our visits the CRPF jawans told us you know ‘Saab/ Sahib, we had to take this water from this nullah. So, what we did is, we dug one pit, around 2 meters from the nullah. So, the nullah water was flowing and the soil filtered the water and it came into to the pit.

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After it came to the pit we used our chlorine tablets and handkerchiefs and filtered the water and we drank the water. So, they are also doing their own you know design of how they can get better water.

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And then similarly there is this very interesting bottle which was you know given to the jawans where the filter is inside the bottle. So, what you do is you press the bottle hard. Because of the pressure, the water enters through the filter and you can drink from the top. A team of 10 jawans were given 3 bottles and unfortunately they were saying that this is like so, useless because there is a very small amount of water and then sometimes the water is dirty and you know this gets clogged which is difficult to clean. And then another very important issue was that this remains inside and it is humid and starts smelling. I like to now you know show a video.

‘CRPF aaj Bharat ki sabse badi paramilitary force hai. Jab bhi hum kisi operation mein nikalte hai, toh uss samai generally wo apne saath 7-8 liter pani lete hai ya takriban hum jo chalte hai unka minimum extra weight carry karte hai 20-25 kg. Jin seasons mein ye operations hote hai wo kaafi humid wala hota hai. Sweating se pareshaan ho jaate hai, liquids ki kami ho jaati hai. To agar iss lihag se aisa kuch equipment humein mil jaaye jo running water hai usko hum store karenge usi ko filter karke hum wapis use kar sake toh humare aur humare jawano ke liye kaafi phademanth rahega.’

Meaning: Today CRPF is India’s biggest paramilitary force. Whenever we go for any operation, then at that time we generally carry with us 7-8 litres of water and the total weight we carry is around 20-25kgs.

Normally the seasons when these operations take place is quiet humid and the jawans are exhausted and fatigued. Normally there is a deficiency in the amount of fluids consumed. So for this issue if there is any equipment that can be designed for us, where in we can store the running water and use a filter to and drink the water, then it will be of a great help for us.

So, that was the commandant officer Mr. Mahale. So, he has been very very helpful for us, we had the support of the end user, who is a difficult end user because they are the CRPF you know very busy they are very skeptical about what we do. Then you know they started interacting with us very well and with that close interaction from every stage we could learn a lot and I will show you how that close interaction and the context helped us continuously.