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TECHNOLOGICAL UPGRADATION OF PARAMILITARY FORCES

(SPECIAL AREA OF OPERATION IS THE KEY ISSUE)

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ABSTRACT

In recent incidents we have seen the surprise attack by the Naxals on paramilitary as the Maoist attack on April 24, 2017 that killed 26 CRPF soldiers, was one of the deadliest in recent years. In such cases the forces are highly vulnerable as they don't have time to prepare shelter cover or bunkers and they don't have choice to stay in trucks as they are not bullet proof. The UAV surveillance over tropical forests is unreliable; the use of aircraft for transporting troops and for aerial attacks can be highly dangerous. Security forces may not be aware of the presence of insurgents in an area, and may come under fire as they fly too close or try to land.

KEY WORDS: *Paramilitary Forces, Naxali, CRPF, ITBP,*

Over 10 lakh personnel serve in seven paramilitary, namely- Central Reserve Police Force (CRPF), Central Industrial Security Force (CISF), Sashastra Seema Bal (SSB), Assam Rifles (AR), Indo-Tibetan Border Police (ITBP), National Security Guards (NSG) and Border Security Forces (BSF).

The home ministry has been allocated over Rs.77,000 crore in 2016-17 budget, a steep hike of 24.56%, majority of which have been earmarked for paramilitary forces like Central Reserve Police Force (CRPF) and Border Security Force (BSF), responsible for internal security and border guarding duties. Presenting the general budget in Parliament, finance minister Arun Jaitley announced an outlay of Rs.77,383.12crore to the home ministry of which Rs.67,408.12 crore is under non-plan and Rs.9,975 crore under plan heads. (retrived from http://www.livemint.com/Politics/rpELLMPvJG0oVf6bLWnlGN/Union-Budget-201617-MHA-gets-Rs7738312-crore-a-2456-h.html) The MNCs manufacturing defence equipment have been rushing to India as the country is likely to spend approximately US$ 100 billion (Rs 250,000crore) over the next ten years on defence acquisitions. This has been evident in the recently concluded Def Expo 2014. However , most of this expenditure will be on weapons platforms like main battle tanks, 155 mm artillery, infantry combat vehicles, fighter aircraft, ships and submarines and verylittle on command, control, communications, computers, intelligence, surveillance and reconnaissance systems (C4I2SR). In fact, the modernization of communications systems has lagged far behind that of weapons platforms, particularly in the Indian army.(Kanwal,2014)

CRPF personnel fighting Naxalites in Chhattisgarh are up against not only the ultras but inherent impediments — lack of potable water, high temperatures, fatigue and poor mobile networks. The quality of water is substandard resulting in many of them falling sick. Officials, who visited some of the interior camps of the CRPF in Bastar region said, "We take various steps to purify the drinking water. But that is not enough as when the boys go on patrolling they sometime have to drink water from open sources which leads to illness."

The temperatures in Bastar region during summers go up to 45 degrees Celsius and such hot and humid conditions make the security personnel tired soon, leading to frustration, he said. To boost the morale of the paramilitary personnel, nutritious food, including non-vegetarian items, are being supplied to all camps i.e. the Camps of the CRPF need to be upgraded.(retrived from http://indianexpress.com/article/india/not-just-naxals-crpf-fighting-water-portability-soaring-temperatures-fatigue-in-chhattisgarh-4634452/)

Poor mobile network also is a major hindrance for the CRPF men as they find it difficult to get in touch with their battalion soldier which sometimes lowers their morale.

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CRPF Jawans deployed for long stints in the Naxal hotbed of Sukma in Chhattisgarh are showing signs of fatigue too as many of them have been posted in Sukma for last five years even though normally they should be there for three years which declines the motivation due to their long deployment in the area which is very stressful.

Anti-Naxalite operations take a toll on security personnel as they face guerrilla warfare in hot and humid conditions and treacherous terrain. According to latest statistics of the Home Ministry, the seven forces – the CRPF, BSF, ITBP, SSB, CISF, NSG and Assam Rifles – have lost 1,067 men in combat or counter-insurgency operations over a period of three years. But more than thrice - as many as 3,611 personnel have died due to illnesses.

A. REQUIRED PARAMILITARY PERSONNEL UPGRADATION

1. Clothing (*Required Advanced Integrated Combat Clothing System)*

a) Regular Uniform

NITRA (Northern India Textile Research Association) has outlined the main properties required for the protective textiles for the Indian Armed and Paramilitary Forces. These are described below(http://www.nitratextile.org/coeprotech/web/content/pdf/status-report-on-protective-textiles.pdf)

Physical

- Durability to prolonged exposure to inclement weather and heavy wear
- Good tensile and tear strength and abrasion resistance

Environmental

- Water repellency, wind proof
- Battlefield (good camouflage & low noise generation)

Physiological

- Low weight, easy to wear, minimum heat stress
- Air, moisture & vapor permeability
- Comfort and good appearance

The current armed and paramilitary specifications do not speak about wear, comfort and safety which depend upon the varying battle field conditions. For example, high mobility and smart look to the soldier are not a part of the specifications. NITRA has therefore suggested to revise the specifications for durability, operational efficiency, and wear properties in general (mechanical properties such as tensile, tear and bursting strengths indicate the fabric wear property).

However for combat uniform in addition to these general wear properties, it is essential to measure wear resistance in terms of abrasion. Abrasion resistance should also be included as one of the requirements. The requirement should be such that there should not be "thread breaks" up to 50,000 abrasion cycles when tested as per IS: 12673:1989.

Comfort Properties

- Air permeability of the fabric shall be at least 5 cc/sec/cm2 when tested according to IS 11056:1984.
- Water vapor permeability (water method) shall be 1400 g/m2/day (Minimum) when tested according to ASTM E-96.
- Safety (Heat or flame resistant properties).

The presence of synthetic material such as polyester if exposed to heat or flame melts and sticks to skin causing severe burns. Combat uniforms having heat or flame resistance properties are essential in the present day context. The use of either FR (Flame Resistant) fibers or FR coating should also be included in the present specifications to meet surface ignition test when tested as per ISO 15025 (no hole formation, no melting and no dripping).

Color specification

In the developed countries, camouflage print Colors often include khaki, green, brown and black, with additional colors such as olive, yellow, orange, pink, grey, beige and sand to extend use to other urban, rural and desert backgrounds.

In India, almost same camouflage print (mostly developed using khaki, green, brown and black) is used for all types of surroundings. If the solider is engaged in the urban area, he/she should have such type of camouflage print uniform that matches with the urban surroundings. In such case the use of dark green and black need to be minimized. Color specifications should be according to surroundings.

Tactical Boots:

You've known what an important piece of the uniform **tactical boots** are from the day you enlisted. In training, you went on grueling marches, stood in formation during heat and rain, and tackled tough obstacle courses. Every day during that life-changing experience you relied on your boots to provide you with support and keep your feet protected so you could successfully finish boot camp a tougher, stronger, better service. You found out just how important the right pair of military boots can be.

Now tactical boots for military career keeps you on the path to being a better service member. You don't want your boots to be a reason in losing any combat

operation .As during the Kargil war, 1999 when the Army was planning an attack on the peaks, they encountered a unique problem with Tactical Boots. No supplier was ready to complete the order in a short span of time. This was when MKU (Kanpur based company is making India proud in defence exports) got the emergency order of 10,000 mountaineering boots.

"After three other Kanpur companies refused to take the order, we got this order to supply mountaineering boots on immediate basis. We supplied 10,000 boots despite the company's monthly capacity of 8,000 units," MKU Managing Director Neeraj Gupta said.(ECONOMICTIMES.COM, Jul 06, 2017) Other Indian companies are as follows: - Krish International, Caliber Trades & Exports Pvt. Ltd, Radiance International of Delhi, MKU, Shelcon Footwear, Avs International Private Limited, A R Polymers Pvt. Ltd, S.s .Enterprises, of U. P., Vaishali Store, Best Safety Shoes of Tamil Nadu etc.

The Indian quality of Tactical Boots ranges between Rs 300 to 3000. The U. S. Based U.S. Patriot Tactical having the range of Boots from $25 to $175. Qualitative Tactical Boots could be perched at least for Special Area of Operations and this will also be cost effective for limited amount.

b) BODY ARMOURS

1. Bullet-proof Vest:

The bullet proof jackets used by Indian paramilitary forces are very heavy and inconvenient as they have to work in difficult terrains and mostly hot humid climates. Moreover they don't have access to bullet proof head gears. During the 26/11 Mumbai terror attacks in 2008, very few had bullet proof jackets and almost no one had **helmets** other than cricket helmets which have somehow become standard issue for police forces across the country.

Most of our police forces and reserve police as well in our states are mostly equipped for anti-riot protection, not for anti-terrorist operations. There has to be deep thinking over this by policy makers. India is considered a world leader in body armor technology.Bullet proof jackets and helmets built to the highest specifications of personal protection are not just built in India but exported to more than 230 forces in over 100 countries.

Among the users - the British, German, Spanish and French Armies - and police forces stretching from Japan in the East to the US in the West. The Kanpur-based MKU is India's largest manufacturer of body armour and Tata Advanced Materials export body armour to armed forces around the world.

If the light weight bullet proof vests and helmets are produced in bulk within the country, it will ensure low-cost supplies and end to the endless wait for foreign vendors to supply the equipment.

So it is of urgent need that our paramilitary forces get a good and light weight body armour so that they are not at a disadvantage at the time of combat.

Another recent research shows a bullet-proof jacket designed by Bengali scientist Professor Shantanu Bhowmick has finally received the government's approval. The Ministry of Defence approved the jacket which is made indigenously from ultra-lightweight modern thermoplastic technology. The jacket now awaits PM Modi's green signal and then will be added to the his "Make in India" project.

A joint collaboration between the DRDO and defence ministry, this is the first time in 70 years that the Indian Army will have bullet-proof jacket manufactured completely through indigenous technology. Prof. Bhowmick is the head of aerospace engineering at Coimbatore's Amrita University. The jacket made by him has 20 layers and the carbon fiber in it will enable it to withstand temperatures up to 57 degree Celsius.

At present, India imports bullet-proof vests from USA at a cost of Rs.1.5 lakh for a single piece. Prof. Bhowmick's jackets cost Rs. 50,000 each and, if approved, can save up to Rs. 20,000 crore on such purchases every year. The jacket weighs 1.5 kg which is lighter than the present jackets which weigh 15-17 kg.

A joint collaboration between the DRDO and the Defence Ministry, this is the first time in 70 years that a bullet-proof jacket, which is built in India, will be used by the Army.

2. Helmets

As we have seen the case of 26/11, almost no one had helmets other than cricket helmets which have somehow become standard issue for police forces across the country. It doesn't take rocket science to understand that a helmet designed to stop a cricket ball can never stop a high velocity round from an AK-47, the infantry weapon of choice not just for terrorists but also Indian armed forces. Why in 2015 are our policemen less protected than soldiers fighting the First World War a century ago?

In early 2000s, special operations forces began to use a helmet called the **Modular Integrated Communications Helmet**, commonly referred to as the **MICH** which replaces unpopular **"Kevlar,"** and

PAGST (Personnel Armor System for Ground Troops) helmets. The MICH's design allowed over-ear communications headsets to be worn more comfortably under the helmet; it also offered reduced weight, improved fit, and more effective protection against handgun rounds. There were three versions of the MICH offering different levels of side coverage versus communications capability. The Army developed an improved version of the MICH-2000 design called the Advanced Combat Helmet, and began fielding it in 2003. The tradeoff was an 8% overall reduction in coverage compared to the previous PASGT helmet. The Marine Corps diverged from the Army and adopted the Lightweight Helmet, which featured the improved materials of the ACH, but retained the overall profile of the old PASGT helmet. The MICH, ACH, and Lightweight Helmet all more readily accommodated the mounting of night-vision devices, which were becoming increasingly ubiquitous among American forces in the Global War on Terror signaled that helmets were becoming a modular equipment platform unto themselves.(retrived from http://taskandpurpose.com/combat-helmets-have-moved-beyond-just-protection/)

The U.S. Company called Ops-Core developed its flagship product, the Future Assault Shell Technology, or FAST, helmet. Designed for special operations forces, it featured an integrated mount for night vision, as well as built-in retention lanyards for any night-vision devices. More significantly, along the rim of each side of the helmet was a mounting platform for accessories. The wearer could mount task lights, hearing protection, communication accessories, face protection, oxygen systems, video cameras, and numerous other devices. The FAST helmet came with pre-applied Velcro, which had become popular for mounting **call sign and infrared identifiers**. Rounding out the design was a new dial-based liner and strap system, which made adjusting the fit significantly easier. Despite being 30% lighter, the FAST still exceed the ballistic protection requirements of the ACH. Ops-Core also developed accessory rails for the existing MICH and ACH designs.(http://taskandpurpose.com/combat-helmets-have-moved-beyond-just-protection/)

A U.S. company called MTEK Weapon Systems has developed a helmet that provides more protection than the ACH at only 1.9 pounds of weight. The development of blast gauges enables designers to test the performance of their helmets, and help reduce the chance of traumatic brain injuries.

The future for combat helmets contains many possibilities. Obviously, protection will remain the primary function of any helmet, but, the future combat helmet will not just be a piece of gear; it will be a symbol of a future war.

I feel the system needs Bluetooth/ Wi Fi connectivity with Palm mounted Tab that should be password protected (use Voice detection /Retina scan as Password if possible) so as looted items will never be used by enemy and develop separate reset system these equipment's available at base camp. For this a group of non-combatant software engineers could be recruited.

3. EATING AND DRINKING WATER PROBLEMS DURING SEARCH AND COMBAT OPERATIONS LASTS 3 TO 4 DAYS

In the Mysuru based Defence Food Research Laboratory (DFRL) life sciences experts have the daunting task of providing quality and nutritious food for fighter pilots and Para commandos to carry out their relentless assault on enemy targets and hidden intruders. Scientists at DFRL are busy working on nutritious food which can keep pilots and soldiers energetic for 8 to 10 hours without having to excrete or urinate. The food, liquid in form, can either be carried in a decomposable tetra pack or sachets can easily be tucked into the operational suit of defence personnel men.

Speaking on the sidelines of Aero India 2017, DFRL director RK Sharma said the laboratory is set to produce the nutritious liquid. "The liquid will be stored in small sachets of up to 200 to 250 grams and will be rich in carbohydrates and protein, giving enough energy to deliver the required task spanning 8 to 10 hours. It will be completely absorbed by the body and the soldiers need not have to worry about relieving themselves. We will soon subject it to tests and trials," Sharma said. MRE for every force!

Diversifying its research on nutrient food depending on the requirement, DFRL has come up with 'Meals Ready to Eat' (MRE) packets for each of the defence force.While the Army soldiers are supplied food with highest calorific value, they are followed by sailors of Navy and pilots of IAF. Interestingly, the packets of MRE weigh only 170 gms to 1.7 kg. According to scientists, each packet of ration or MRE is enough for a day for a person.

Giving details of the products, Nagaraju PK said, "Army soldiers require the highest amount of energy; hence each pack would provide them with 3,600 kilo calories while the average adult requires about 2,400

kilo calories per day. The packets will have breakfast, lunch, dinner and snacks, enabling the soldier to survive for 24 hours. All they do is to pour the mixture into a cup of hot water and consume it directly. Similarly, fighter pilots are provided with 170 gms of Emergency Flying Ration including salt, water and a few nutritious eatable mixtures which can help them survive for 8 to 10 hours."

As the Para commandos work in different terrains like snow-covered mountains or deserts with fluctuating temperatures, a **battery operated food warmer** has also been developed for heating the packets. "All they have to do is to place the packets inside the warmer pouch equipped with **heating coils similar to induction stoves** and switch on the rechargeable battery. In less than 15 minutes, the food is heated up to 40 degrees. With fully charged battery, jawans can heat up to six packets of food," Nagaraj explained.

My recommendation on this problem is that the paramilitary vehicles should be equipped with small battery operated freezer and a water tank similar to fuel tank on the other side of the vehicle/truck. This will play a great role in logistical supplements up to place near by the area of operation.

4. WEAPON SYSTEM MODIFICATION

What could be a game-changer for the security forces, CRPF- the country's largest paramilitary force- is exploring technology that could track and disable weapons looted by Maoists in Left-wing extremism-affected districts and terrorists in Jammu & Kashmir.CRPF is already in touch with some private companies which deal with technology which could provide GPS tracker/RFID (Radio-frequency identification) chip or biometric software so that weapons snatched by ultras could be tracked and rendered useless._According to figures available with The Sunday Express, the shortfall of 9 mm bullets in 2016-17 is likely to be over 75% — against a demand of 9.3 crore bullets for paramilitary and state police forces, the Ordnance Factories Board (OFB) has agreed to supply only 2.3 crore.(http://indianexpress.com/article/india/india-news-india/paramilitary-forces-75-per-cent-ammunition-shortage-2890466/) The CRPF Director General Rajeev Rai Bhatnagar confirmed that the force is looking at such technology. He, however, said that this is in planning stage.

Presently, some countries like the US use GPS technology in some of their weapons. Home minister Rajnath Singh after the April 24 Maoist attack in Sukma, had floated the idea of having a technology to track weapons. However, several officials TOI spoke to were sceptical of such an idea saying it is not so easy to bring this kind of technology in weapons.

Unmanned aerial vehicles, or drones, equipped with cameras, data and video links are the latest weapons that could be deployed against Naxals in India.

My recommendation is that the GPS Tracker/RFID (Radio-frequency identification) chips or Biometric Software should be sealed like Black Box technology to avoid the physical damage and be implanted in such a way that any effort to remove it should make the weapon useless.

5. LOGISTICAL SUPPORT

In recent incidents we have seen the surprise attack by the Naxals on paramilitary as the Maoist attack on April 24, 2017 that killed 26 CRPF soldiers, was one of the deadliest in recent years. In such cases the forces are highly vulnerable as they don't have time to prepare shelter cover or bunkers and they don't have choice to stay in trucks as they are not bullet proof.

The UAV surveillance over tropical forests is unreliable; the use of aircraft for transporting troops and for aerial attacks can be highly dangerous. Security forces may not be aware of the presence of insurgents in an area, and may come under fire as they fly too close or try to land.

My recommendation on this issue is to modify trucks into a permanent moving bunker (Bunker Trucks) for the special area of operation not in all Paramilitary Trucks. This will help the soldiers to manage counter fire from these Bunker rucks to save their weapons, bullets, etc. and also manage to save their lives. For this, basic modification could be as:

- In the outer wall of trucks a light weight bullet proof material could be sandwiched between two layers of iron plates provided with the space of firing with the minimum height (height required for ducking a soldiers) as the Trucks could not become heavier.

(**The older and rejected present Bullet-proof Vests could be used for sandwiching. This will be cost effective**)

- Trucks could be provided with four hydraulic legs which will act as emergency supportin the case of bursting of tyres.
- Fuel tank also placed under bullet proof cover otherwise this may acts as fuel bomb.
- A water tank could be installed in similar way as fuel tank on the other side of the Trucks with system of pumping the water also attached inside the Truck.

This modification will counter the drinking water problem, maintaining the balance as well as also help as fire extinguisher at the time of emergency.

B. REQUIRED OPERATION FIELD UPGRADATION

1. Modernize Law Enforcement Agencies:

India has numerous law enforcement agencies most of which, according to the nature of the constitution of India, are subject to state. Therefore, the major policing lies in the hands of the state and governments. At federal level, many agencies are under the command of Union Ministry of Home Affairs, which support the states in their duties. It is therefore required that the central government makes inroads into these disturbed states with their agencies well-equipped with modern artillery and assist the usually poorly-equipped agencies of the state.

Reckoned conservatively, Naxal activity in India today spreads across 90 districts in 10 states: Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal. A look at this list will convince you that these movements aren't driven by the urge to break away from the country based on one geographical, ethnic or linguistic drive: at least six languages are spoken by the natives of these 10 states.

But cutting across this diversity, there are some startling similarities about the condition of people living there. To start with, the studies that shows that 85 of the country's 100 poorest districts are in seven of those 10 states. In the Naxal-affected districts, 32% of the population is below the poverty line, officially-measured.Second, in these districts, state governments have a terrible record of delivering public goods and services. Only 68% of homes in Naxal-affected districts get safe drinking water.

2. Intelligence Services:

The density of the forest applies limitation over intelligence work as well as technical gadgets. All devices that work in a horizontal direction and depend on line of sight, such as remote cameras, night-vision devices, radar, and the like, suffer the same handicap. Other technical devices such as satellites and unmanned aerial vehicles (UAVs) that use vertical line of sight have their own limitations in heavily forested areas. These difficulties are compounded by the fact that the Maoists seem to be aware of such surveillance from above and accordingly adopt camouflage and concealment techniques.

The general lack of roads, communication, infrastructure, and facilities in India's hinterlands makes it difficult for the government to motivate its employees to go to those places or stay there long enough to develop the kinds of relationships with the locals that will yield useful intelligence.

The general lack of infrastructure and communication channels in these remote Maoist-affected areas means that even if an observer sees something, it is very difficult and time consuming to pass the information on to an intelligence agency. By the time the intelligence reaches the agency, too often it has become stale and useless for undertaking any operation. Maoists are aware of this factor and deliberately destroy roads and ban the use of mobile phones in their operational areas. They may even kill people they find using mobile phones, on the suspicion that they are police informers. According to one source, "In the past four years, more than 200 mobile towers have been blown up in the nine States by Maoists alleging security forces were being informed about their movements and locations with mobile phones. The difficulties with visibility and line of sight in a dense forest apply equally to the use of long-range artillery. Because the land where the Maoists operate is often also very hilly, armored vehicles, tanks, and heavy machine guns can become more liabilities than assets.

Further complicating matters, the Maoist problem is one of domestic security for India, in which its own citizens—the insurgents—hide among other citizens. The target population is scattered throughout the forests, making aerial and other area-based attrition approaches counterproductive. Without highly accurate targeting information from intelligence and surveillance, the collateral damage from aerial attacks is unacceptable—a problem made even worse, of course, in more populated localities. In a liberal democracy such as India, the public outcry against any loss of innocent lives from aerial attacks by the state can become deafening, which is a risk that a democratic government cannot afford. In fact, insurgents frequently seek to goad the state into indulging in such overreactions precisely to undermine state legitimacy in the eyes of the population. Furthermore, those remote areas already dominated by Maoist violence have the lowest level of access to technology, because the Maoists actively oppose the use and spread of information technology in their areas of influence.

My recommendation is that the CRPF, which takes care of the security of the states, should set up its

own intelligence wing. There should be daily sharing of information forwarded by the security agencies as well as the specially constituted team in each state. All the Naxal-affected states should constitute inter-state intelligence support teams to tone up the information gathering and sharing mechanism.

3. Take steps for welfare of the tribals for gaining local support:

"Development is a master remedy to solve the Naxalite problem because Lac of development is the cause of Naxalism" The socially backward tribals form the major support base for Naxalites as they suffer with rebellious instincts and unrest because of inequality, illiteracy and lack of opportunities. Besides being the core support groups for the Naxalites, the Dalits and tribals are often manipulated by the Naxals for their own gains. These downtrodden sections of our society inadvertently become soft targets for both the Naxals and the security agencies. It's important to prevent these people from falling in the Naxal trap. Mobilising the support of the people is also absolutely essential to weaken the support base of the Naxals. Recent study shows that the use of mobile phones spread rapidly into remote regions adjacent to Maoist-controlled areas once the construction of new roads improved accessibility. Better roads and communications will make it difficult for the Maoists to expand into those areas, since they will no longer find the security of isolation there.

My recommendation on this problem is that the villages must be upgraded according to the needs of combat operations. The villages could be equipped with solar power system to fulfill the needs of villages. This will illuminate the village and its surrounding, providing power for pumping of ground water, purifying water and irrigation,etc. which willhelp to isolate the Naxals from these villages as well as fulfill the energy needs of Paramilitaryduring combat/search operations i.e. help incharging their batteries, refilling their drinking water and preparing/ heating up their food items, etc**.**

It may look expensive for developing countries to make these structural investments, but a cost-benefit analysis needs to be carried out to determine the future cost of fighting insurgents.

4. Pay attention to rehabilitation and resettlement:

It was easy for the government to set up mining grounds, irrigation areas, industries, etc., in the area without any provision for the resettlement of the displaced people. This has only added to the woes of the poor, who are left with no alternative but boycott the pain-inflicting government and its policies and support the Naxals. The rehabilitation and resettlement could be in the manner like "New Villages" of Malaya during the time insurgency (16 June 1948 – 12 July 1960), successfully adopted by British Government. It may look expensive but these structural investments will helps in isolating the innocent population with Naxals and its cost-benefit analysis needs to be carried out to determine the future cost of fighting insurgents.

5. Generate more employment and increase wages:

Insecure livelihood and unemployment in the areas have left the people with no option but to join the Naxals. The youth in the area demands for reservation in almost all sections of employment. If we are actually thinking of ways to finish Naxalism, we'll first have to provide the people of the area with proper employment opportunities with increased wages to uplift their standard of living.

6. Dialogue:

Talking can be a solution to a lot of things; thus, dialogues between the Naxal leaders, who have said to have their hideout as far as China, and the government officials can be a way work out a solution. The government should initiate sincere dialogue with Naxalites. The popularity of Naxalites with the tribals is an indication of the fact that the government has never paid heed to the plight of these tribals and the degrading socio-economic condition in the Naxal affected areas.

7. Good governance:

Naxalism has long presented the greatest threat to the country's security and has also highlighted the underlining weakness of the Indian government, which has failed to establish refined political institutions and have failed to provide sound socio-economic structures. The presence of Naxals in the country also reveals the loopholes in the law and order of the country which has failed to curb the menace. India requires a good central government which implements a coherent national strategy to finish Naxalism. The government can't end Naxalism by sending the military into villages and jungles and it won't help to club Naxals as terrorists and book suspects under harsh laws. Many of these problems have to do with one simple fact: the people living in these areas are tribals who, on paper, receive special rights and privileges but are actually subject to brutal discrimination in India's caste-conscious society. Even in West Bengal's so-called socialist utopia, in dry areas where a single source of water, like a well or a pond, has to be shared by many households, the tribal is the last person in queue to get her bucketful.The govt. staff in the state and district administration is mostly drawn from

the local elite, and their sympathies lie entirely with 'their' people. So, they pour whatever resources they have in better-off, urban, upper-caste areas. The tribal areas remain backward as the fact that only 43% of women in tribal, Naxal-affected areas get skilled medical attention.

CONCLUSION AND RECOMMENDATIONS

It was reported on July 23, 2013, that BMS has been categorised as a 'make India' system by the Defence Acquisition Council headed by the Defence Minister. This implies that the system must be designed and developed in India by domestic companies. According to the US-based Defense News, "In the months ahead, expressions of interest (EOIs) will be sent to more than a dozen Indian defence companies, private and state-owned, inviting them to participate in the program. The EOIs are likely to be sent to Bharat Electronics Limited (BEL), Electronics Corporation of India, Computer Maintenance Corporation, ITI, domestic private-sector major Tata Power SED, Rolta India, Wipro, Larsen & Toubro, HCL, Punj Lloyd, Bharat Forge, Tata Consultancy, Info Systems and Tech Mahindra." This will ensure that Indian companies invest in developing the required communications technology and acquire the ability to design and implement robust tactical communications systems.(kanwal,2014)

Andhra Pradesh has been projecting itself as a successful model in the fight against Naxalites. The state is no longer a citadel of the Naxalites and their top leadership. An effective police action combined with simultaneous developmental activities and an effective field level intelligence in the Naxal affected districts are the primary reasons for the successful containment of Naxalites in the state.(http://www.ipcs.org/article/naxalite-violence/replicating-the-andhra-model-headed-for-failure-3008.html)

- The regular uniform including tactical boots should be according to climate and region specific because India is a country of diverse climatic conditions.
- The bullet proof vests must be upgraded with lighter ones in order to increase combat efficiency.
- It doesn't take rocket science to understand that a helmet designed to stop a cricket ball can never stop a high velocity round from an AK-47 so it is of urgent need to upgrade the helmets.
- Nutritious and energetic Meals Ready to Eat (MRE) is the basic requirements especially for the special area of operations which last for 2 to 4 days.
- If the GPS Tracker/RFID (Radio-frequency identification) chips or Biometric Software are used then we will need a backup force for tracking and responding within limited time spam before the batteries gets discharge.
- The idea of bunker Trucks is an easy and cost effective method to convert the normal military trucks into Moving Bunkers. It will be very help full to minimize the loss of lives and loot of arms and ammunitions.

REFERENCES

http://indianexpress.com/article/india/not-just-naxals-crpf-fighting-water-portability-soaring-temperatures-fatigue-in-chhattisgarh-4634452/

http://taskandpurpose.com/combat-helmets-have-moved-beyond-just-protection/

http://taskandpurpose.com/combat-helmets-have-moved-beyond-just-protection/

http://timesofindia.indiatimes.com/india/crpf-exploring-tech-to-track-looted-weapons/articleshow/59061404.cms

http://www.ipcs.org/article/naxalite-violence/replicating-the-andhra-model-headed-for-failure-3008.html

http://www.livemint.com/Politics/rpELLMPvJG0oVf6bLWnlGN/Union-Budget-201617-MHA-gets-Rs7738312-crore-a-2456-h.html

Kanwal, Gurmeet; *"Modernising the Army's Tactical-level Communications Systems",*IDSA February 14, 2014.

Kanwal, Gurmeet; *"Modernising the Army's Tactical-level Communications Systems"*,IDSA February 14, 2014

Sharma, Satyam; *" This little-known Kanpur company is making India proud in defence exports*", ECONOMICTIMES.COM, Jul 06, 2017, 12.44 PM IST. http://economictimes.indiatimes.com/news/defence/this-little-known-kanpur-company-is-making-india-proud-in-defence-exports/articleshow/59469992.cms