NDRF • INDIA

Saving Lives & Beyond...

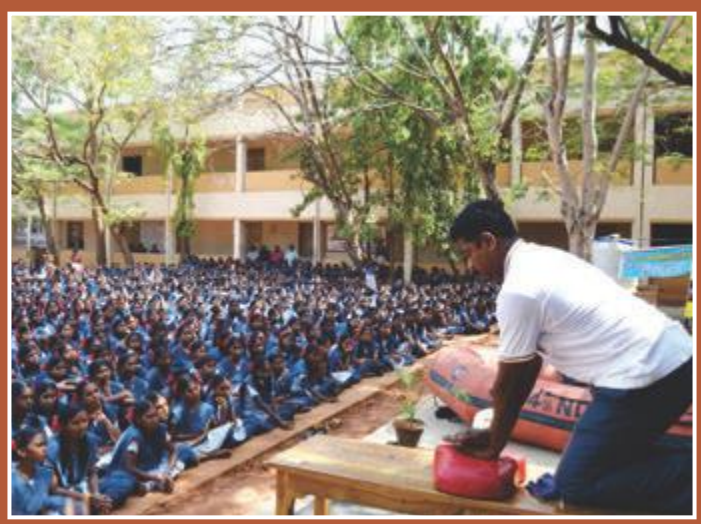
The Saviour

A Quarterly Magazine of NDRF

January-March, 2016











CHIEF PATRON

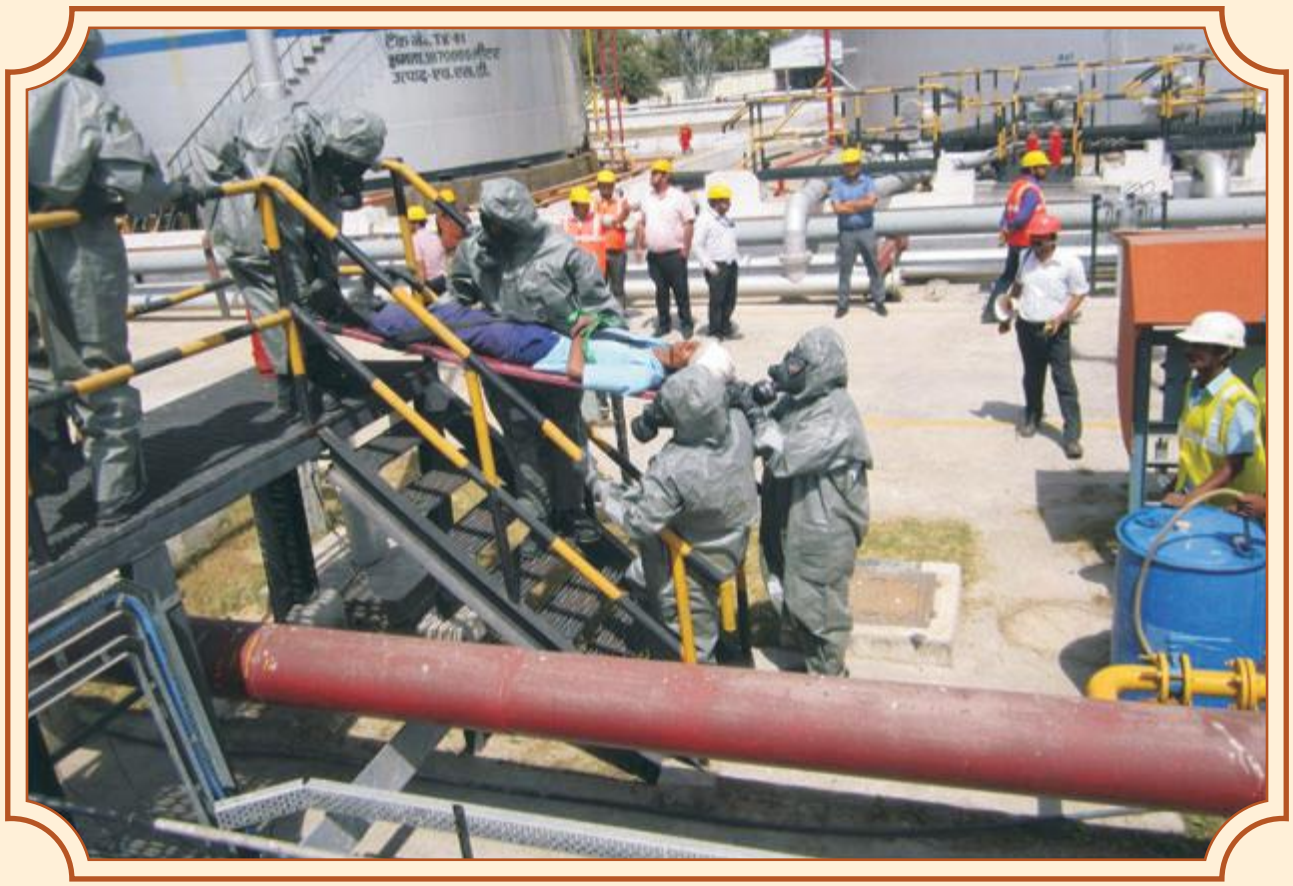
- SH. O.P. SINGH, IPS, DIRECTOR GENERAL

EDITORIAL ADVISORY BOARD

- SH. AMRENDRA KUMAR SENGAR, IPS, IG
- SH. RANDEEP RANA, DIG (OPS & TRG)
- SH. ANIL SHEKHAWAT, AC (PRO)

आपदा सेवा सदैव

Volume-VII Issue-I



Preparation is the key to success: NDRF rescuers in CBRN exercise



Shifting of victim to a safer place



In aid to victims : During a Mock Demonstration



Exhibition of Disaster Management Equipment by NDRF

Message from Director General, NDRF



I am happy to note that NDRF started its journey in Jan 2006 with amalgamation of eight CAPFs Battalions, is gaining new heights every day. With passage of time and its conviction towards selfless devotion to Humanitarian approach, NDRF has now become a common name for Disaster response in Country as well as beyond boundaries.

During this quarter, we have successfully organized a National Workshop on 'Strengthening National Response Capabilities' to provide a platform and to prepare a roadmap to strengthen national disaster response capabilities. Eminent dignitaries from various fields participated and shared their view on effective disaster response in India during the workshop. The Hon'ble chief guest and Minister of States (Home) Sh. Kiren Rijiju applauded NDRF for its role towards making India disaster resilient and hoped that organizing such workshop provides opportunities to come together and work for new strategies for effective disaster management by sharing best practices.

On 2nd April, 2016, a Fete was organized by NDRF under the aegis of NWWA (NDRF Wive's Welfare Association) "Sanjivani" at Ghaziabad to provide a unique platform, wherein NDRF personnel from battalions put up unique Arts, Artifacts and Handicrafts from different parts of the country. NDRF field formations took part in the fete with zeal and enthusiasm.

Besides the administrative task, NDRF had been continuously engaged in its mandated task of disaster response. Responders of NDRF did commendable job while responding to Kolkata flyover tragedy in West Bengal, CBRN response in Bangalore, Karnataka, Fire Incident in Mumtaz Market, U.P, Drowning Case in Guwahati, Assam & so on and saved many precious lives and property of our countrymen during the first quarter of 2016.

In addition, NDRF provided cover to various mass congregation during World Cultural Festival, Ganga Sagar Mela, 26th National Canoe Championship and Defexpo-2016.

I hope that Force personnel will continue to strive to come up to public expectations in the service of humanity.

Jai Hind…

O.P. Singh, IPS
DG, NDRF

CONTENTS

S. No.	Topic	Contributed by	Page No.
1.	Re-visiting Preparedness from Disaster Risk Reduction Perspective	Dr. Sushma Guleria NIDM, New Delhi	2
2.	NDRF - completing a decade of disaster response service	Sachidanand Gawade Dy. Commandant	5
3.	Health Effects of Iron in Drinking Water	Shiv Om Second-in-Command	8
4.	UAV(Unmanned Aerial Vehicle)	P. Vairavanathan Asstt. Commandant	12
5.	Indian ethos : Disaster Management in Kautilya 'Arthasastra'	Narendra Asstt. Commandant	15
6.	Community Awareness in Disaster Management - Role of NDRF	SI Mulgiri Shivaji	20
7.	Habits You Might Be Able to Change to Save The Earth	Anil Shekhawat Asstt. Commandant	26
8.	Operational safety measures while dealing in Radiological Emergency	SI Sanjit Kumar Gupta	32
9.	आपदा	आरक्षक, नीरज कुमार सिहं	35
10.	NDRF Operations & Activities During this Quarter		40
11.	News Clippings		53





Re-visiting Preparedness from Disaster Risk Reduction Perspective



Dr. Sushma Guleria
National Institute of Disaster Management (NIDM), New Delhi

The first South Asian Annual Disaster Manage - ment Exercise (SAADMEx-2015) hosted by the Government of India culminated with the South Asian countries coming to a common consensus for the need to integrate disaster risk reduction (DRR) as a key component in any planning process for emergencies. Meanwhile, Tamilnadu and more so, Chennai city bravely fought the water deluge. The entire Nation and the disaster management community is ruminating over the fact that why some parts of the country known for drought are experiencing severe floods and vice versa. Over the past two decades, the number of recorded disasters has almost doubled. Nine out of every ten of these disasters have been climate related. For most of us, these seem to be the first real signs of climate change; the first signs that the 'impossible' can happen. In addition, vulnerability is also growing manifold. Increasing urbanization, including growing concentration of people in unplanned and unsafe urban settlements and exposed coastal areas, poverty and inadequate attention to changing risk patterns, are placing more and more people in disaster-prone locations. The usual holistic approach of disaster management calls for identifying appropriate and viable preventive and mitigation measures. Adequate preparedness for timely response determines the success of any such initiative during emergencies. The aim of this "Emergency Response" is to provide immediate assistance to maintain life. The focus in on meeting the basic needs of the people so as to contain or lessen the effects of the disastrous event thereby, preventing further losses of life and

property and re-establish normalcy. While it is impossible to plan for every disaster separately as each emergency has a different dynamics, failure to do so could lead to damage to assets, human mortality, and revenue losses and hence, stakeholders keep harping about the need for a systematic approach and assistance to carry out efficient response. Similar National experiences and the increasing number of disasters worldwide are a warning signal corroborating the fact that disaster response still needs better "preparedness".

Never before has the challenge "to substantially reduce the impact of disasters and to make risk reduction an essential component of development policies and programmes" spelled out in the Hyogo Framework for Action 2005-2015 (HFA) been more compelling. In 2005, shortly after the Asian Tsunami, over 168 governments pledged to implement the same. HFA had outlined five specific priorities for Action one of them being strengthening preparedness for response. Here, HFA highlighted the essential role disaster preparedness can play in saving lives and livelihoods particularly when integrated into an overall disaster risk reduction approach.

In recent years, the intensity and increasing frequency of disaster events have triggered a need to review the disaster management framework. Preparedness has traditionally been framed in terms of disaster response, with preparedness mostly playing a supporting role to response and encourages activities such as resource mobilization, stockpiling resources necessary for effective response, pre-planned decision and communication procedures, and developing skills and competencies to ensure effective performance of disaster related tasks. As such, these preparedness activities are more immediate-term than long-term, focusing on preparing to respond quickly when disaster strikes. While preparedness historically "serves" response, it does not neatly fit within the arena of response. In other words, disaster preparedness has always been viewed as a way to make response easier, more efficient, or better overall. Even though, preparedness work has been generally carried out by disaster responders, this work was not entirely integrated with response activities because disasters were viewed as one-off, somewhat rare, and almost entirely unpredictable. Disaster preparedness was often characterized as operating in a realm distinct from development activities and hence, preparedness was viewed as distinct from both development and response efforts. It did not at all focus on development of community based or localized capacity enhancement. Therefore, despite common elements, these fields developed parallel, un-coordinated, and sometimes conflicting operations, which did not lead to optimal outcomes. Practitioners in the development community left management of disaster risk to disaster responders. And then, when disaster struck, development workers stepped aside while response efforts were carried out and when the emergency work was over, reconstruction efforts began to get the affected community 'back on the development track'.

Around year 2000, "Risk" began to emerge as a new way to talk about preparedness. It incorporated the minimization of destructive effects of disasters and readying communities to "take precautionary measures and respond to an impending disaster" by assessing and developing plans for threats and vulnerabilities. There came "a paradigm shift in emphasis internationally from a disaster management to a disaster risk management approach". This became a robust sector devoted to interventions and studies around disaster risk reduction (DRR). Although organizations have come to recognize the need for preparedness as a robust development activity within communities, not only as a part of response, DRR remains strongly associated with response and hence is still conceptually separate from other development programs. As a result, preparedness practitioners continued to see a need to move preparedness from reactive relief activities to proactive activities integrated within development. As the 'preparedness community' is trying to erase its traditional boundaries and have embraced a term that represents holistic views that leap across the strong disaster management-DRR gap: RESILIENCE. The siloed attitude is beginning to fade, and there is a rise of more inclusive

perceptions of preparedness. In the last decade, DRR experts have strongly advocated and have opened the doors for the need to "mainstream" preparedness across sectors. The perspective represented by the term resilience is helping to create a new space where response and development cannot be divided by traditional boundaries. A 2012 literature review concludes that preparedness is moving into a new "state of resilience…a state that is defined as the ability of a system to maintain or restore an acceptable level of functioning despite disruptions and failures". Whereas the traditional approach refers to the delivery of expert services to recipient affected community members as clients; passive receivers, the proposed complementary approach integrates the involvement of community members in an active collaboration to prepare for disasters, facilitate some pre-emptive actions thereby contributing for 'community resilience' and bridge the gap where development ends and response begins.

The focus of this article is just to reiterate on the need for emergency disaster management organizations and the wider community to share a common vision and approach towards building resilience to unexpected disaster events. There is also a need for disaster management to have a more holistic approach, based on which, it can be argued that the emergency management sector needs to invest in strategies that build general resilience in the community. Disaster preparedness needs to be integrated with strategies to build community resilience in a sustainable way. By drawing on the specific needs, characteristics and capabilities of particular communities and their environments, disaster preparedness allows individuals different ways of building and contributing social capital. Building disaster resilience can complement disaster preparedness programs because it will be based both on bottom-up and top-down approaches. It starts from the community members up to the governmental perspective and from there, back to community members to obtain feedback and continue building resilience. The holistic view proposes the involvement of all potential players in disaster prevention and risk mitigation, including both specialist organizations and community members, to better provide disaster preparedness and to build community resilience.

****

NDRF – COMPLETING A DECADE OF DISASTER RESPONSE SERVICE



Sachidanand Gawade
Dy. Commandants

The mention of NDRF or National Disaster Response Force today creates a sense of relief in the minds of common citizens of our country and also a sense of pride for personnel serving in it given the stellar performance of the force since its inception. The Force has lived up to its motto of 'Aapada Seva Sadaiv' by its unwavering commitment, dedication and devotion to this ethos. NDRF over the last ten years has emerged as the visible, vibrant and successful force ready to shoulder diverse responsibilities in National as well as International scenarios.

The passage of DM act 2005 saw the raising of Eight NDRF BNs in the initial stage which covered the entire gamut of natural as well as man-made disasters. Four BNs out of these Eight BNs were trained and equipped to be CBRN capable. The passage of DM act 2005 saw paradigm shift in DM from response and relief centric approach towards the holistic approach of Preparedness, Mitigation, Response, Relief, Reconstruction and Rehabilitation. These BNs are located strategically based on the hazard and vulnerability profile of the country.

A detailed analysis of NDRF's achievements over the years leads us to the following salient features which have it successful:

1. Initially the NDRF BNs were raised on the pattern of International Forces working in the field of Disaster Management. MFR training and equipping of NDRF BNs has been done on the lines of USAID. EMS programmes which comes under the umbrella of UN. CSSR training and equipping of NDRF teams has been done as per guidelines of INSARAG. INSARAG is a global network of more than 80 countries and organisations under the United Nations umbrella. INSARAG deals with Urban Search And Rescue (USAR) related issues, aiming to establish minimum International standards for USAR teams and methodology for International coordination in earthquake response based on the INSARAG Guidelines endorsed by the United Nations General Assembly Resolution 57/150 of 2002, on "Strengthening the Effectiveness and Coordination of International Urban Search and Rescue Assistance". NDRF teams are trained in CBRN emergencies at National premier institutes like DRDE, BARC, INMAS wherein they get to interact with the scientific community paving way for an in-depth understanding of various theoretical and practical aspects of CBRN emergency management. Apart from this NDRF personnel are trained by International agencies like OPCW, GCNEC etc. in the field of CBRN making them aware about the prevalent SOPs and co-ordination requirements at this level. NDRF is now looking to take the next big leap in the training aspect of DM by establishing a National Institute of Disaster Response which will see the force collaborating with various institutes in the field of DM having domain expertise to enhance its role as a multi-disciplinary, vibrant and successful force.

2. NDRF teams are equipped with the latest equipment, tools, machinery to deal with any kind of disaster situation which are incidentally used by such expert teams all over the world. NDRF has been alive to the fact that to keep its competitive edge intact and to remain in

professional reckoning it has to have the latest state-of-the-art equipment and it has vigorously followed this policy by constantly scouting for such equipment.

3. NDRF has today achieved that rare distinction of being the Force of choice for various State Govts. as well as the Union Govt. due to its emphasis on professional competency and operational efficiency. NDRF teams since their inception have proved their metal in various kinds of disaster scenarios including Floods, Earthquakes, Cyclones, Landslides, Avalanche, Building Collapses, Radiological and Nuclear emergencies, Chemical Industrial Emergencies, Biological Emergencies, Borewell rescue, Rail and Road accidents. This was done not just at the National level but also at the International Level during the Nuclear and Radiological Emergency in Japan and Earthquake in Nepal. The professionalism, commitment, sensitivity, Courage and dedication displayed by NDRF teams during these operations have earned the Force as well our country a lot of respect and good will at the International level.

4. Today, NDRF's claim to glory lies in part to the extraordinary leadership displayed by its men and Officers alike in the most trying situations. Officers and men of NDRF have always risen to the occasion and have led from the front amidst challenging odds and life-threatening situations. Nine NDRF personnel martyred in the line of duty displaying exemplary courage, grit, dedication, devotion and selfless service in adverse conditions. The swift decision-making ability and meticulous planning by NDRF leadership at various levels has seen the force grow in stature. The quality of leadership in NDRF has ensured high motivational levels and creation of Espritdecorps amongst its ranks.

5. One of the important gaps in DM strategy is the low coping capacity of the general community. To fill this gap NDRF is endeavour to generate create community awareness amongst the local population where it is deployed by carrying out Familiarisation exercise, Demonstrations, Exhibitions, Seminars etc. to take the basic principles of disaster response to the last person. The focus of NDRF during such programmes has been to empower Women, the underprivileged and school children who face the worse effects of disasters. NDRF has also participated in various exhibitions, demonstrations, seminars and joint exercises at the International level making the countrymen proud.

6. Co-ordination: Disaster situations by nature entail a very close and co-ordinated response by multiple agencies handling the various issues of DM. It has been the endeavour of NDRF teams to achieve maximum efficiency in its operations by working in close co-ordination with all stakeholders. This has earned the force a lot of trust and respect amongst various stakeholders.

****


ZD4114



Health Effects of Iron in Drinking Water



Shiv Om
Second In Command

Drinking water high in iron is good for you, but the metallic taste is unpleasant.

Overview

Pure water has no taste, but water is a natural solvent. Most minerals from groundwater, including iron, will be absorbed by water. Large amounts of iron in drinking water can give it an unpleasant metallic taste. Iron is an essential element in human nutrition, and the health effects of iron in drinking water may include warding off fatigue and anemia.

Iron in Drinking Water

The thing that you would have noticed most from water that is high in iron is that the water may taste metallic. The water may be discolored and appear brownish, and it may even contain sediment. Iron will leave red or orange rust stains in the sink, toilet and bath tub or shower. It can build up in your dishwasher and discolor ceramic dishes. It can also enter into the water heater and can get into the laundry equipment and cause stains on clothing. The EPA (Environment Protection Agency of U.S.A) cautions that although iron in drinking water is safe to ingest, the iron sediments may contain trace impurities or harbor bacteria that can be harmful. Iron bacteria are naturally occurring organisms that can dissolve iron and some other minerals. These bacteria also form a brown slime that can build up in water pipes. Iron bacteria are most commonly problematic in wells, where water has not been chlorinated.



Iron's Role in Human Nutrition

Iron is necessary for your health. The most well-known role that iron plays in human nutrition is in the formation of the protein haemoglobin, which transports oxygen to all cells of the body. Iron is also used in cellular metabolism and is found in many of the body's enzymes. Low iron stores in the body can lead to iron deficiency, anemia and fatigue and can make you more susceptible to infections.

Some segments of the population are more at risk than others for iron deficiency. In particular, women, children, the elderly, and non-Caucasians are more likely to be iron-deficient than men, although anyone can be iron-deficient.

It is possible that drinking water that is high in iron may be beneficial, as it adds small amounts of iron to your diet. However, while drinking water that contains iron may help mediate iron deficiency symptoms, you should not depend solely on the iron in your drinking water as the only source of iron in your diet.

Health Effects of Iron Overload

Iron is an essential element in human nutrition. Estimates of the minimum daily requirement for iron depend on age, sex, physiological status, and iron bio availability and its range from about 10 to 50 mg/day .The average lethal dose of iron is 200-250 mg/kg of body weight, but death has also occurred due to ingestion of doses as low as 40 mg/kg of body weight .It is possible for you to get too much iron through your diet, but ingesting too much iron through your drinking water is not associated with adverse health effects However, while chronically consuming large amounts of iron can lead to a condition known as iron overload; this condition is usually the result of a gene mutation that affects about one million people in the United States. Autopsies have shown hemorrhagic necrosis and sloughing of areas of mucosa in the stomach with extension into the sub mucosa. Iron overload can lead to hemochromatosis (from a genetic disorder characterized by increased iron absorption and from diseases that require frequent transfusions) ,a severe disease that can damage the body's organs. Early symptoms include fatigue, weight loss, and joint pain, but if hemochromatosis is not treated, it can lead to heart disease, liver problems and diabetes. A blood test can identify iron overload.

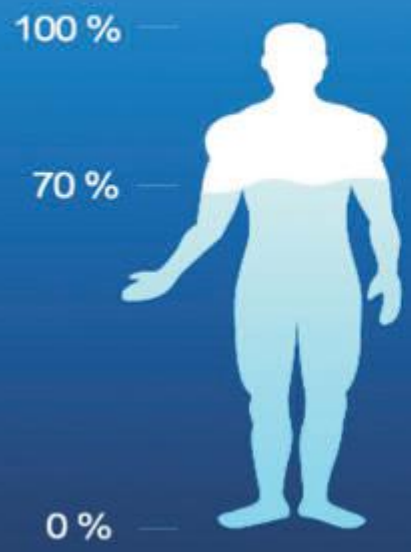
Conclusions

An aerobic ground water may contain iron(II) at concentrations up to several milligrams per liter without discoloration or turbidity in the water when directly pumped from a well. Taste is not usually noticeable at iron concentrations below 0.3 mg/liter, although turbidity and color may develop in piped systems at levels above 0.05-0.1 mg/liter. Laundry and sanitary ware will stain at iron concentrations above 0.3 mg/litre. Iron is an essential element in human nutrition. Estimates of the minimum daily requirement for iron depend on age, sex, physiological status, and iron bio availability and range from about 10 to 50 mg/day.

****

Daily Water Chart

Water Composition



Daily Requirement

Weight	Water	
20 lbs	8 oz.	1 cup
40 lbs	16 oz.	
60 lbs	24 oz.	
80 lbs	32 oz	4 cups (1/4 gallon or 1 quart)
100 lbs	40 oz	
120 lbs	48 oz.	
140 lbs	54 oz.	
160 lbs	64 oz.	8 cups (1/2 gallon)
180 lbs	72 oz.	
200 lbs	80 oz.	
220 lbs	88 oz.	
240 bs	96 oz.	12 cups (3/4 gallon)
260 lbs	104 oz.	
280 lbs	112 oz.	
300 lbs	120 oz.	
320 lbs	128 oz.	16 cups (1 gallon or 4 quarts)



Filters — change them.

Change your water filters on time. Old filters aren't safe – they harbor bacteria and let contaminants through.



Bottled water? Drink filtered tap water instead.

You can read the bottle label and still not know whether the water is pure or just processed tap water. EWG found 38 contaminants in 10 popular brands.



On the go — carry water in safe containers.

Hard plastic bottles (#7 plastic) can leach a harmful plastics chemical called bisphenol A (BPA) into water. Carry stainless steel or other BPA-free bottles. Don't reuse bottled water bottles. The plastic can harbor bacteria and break down to release plastics chemicals.



While pregnant — stay hydrated with safe water.

It's especially important for women to drink plenty of water during pregnancy. Follow all the tips above and take your doctor's advice on how much to drink.





UNMANNED AERIAL VEHICLE (UAV)

Unmanned Aerial Vehicles which operate without a human pilot, have only been in service for the last 60 years



P. Vairavanathan
Asst. Comdt.

In 1922 - First Launch of an unmanned aircraft (RAE 1921Target) from an aircraft carrier was done by UK. In 1933 - First use of an unmanned aircraft as a target drone was used. In the field of combat First combat use of an unmanned aircraft was done by German on 12 June 1944 and on 19 October 1944 by U.S. Navy. During 1955 First flight of an unmanned aircraft designed for reconnaissance by US and British armies.

The USAF of US tends to classify their main operational

UAVs are using the RQ Abbreviation. The prefix IAI (Israel Aircraft Industry) is used for the majority of the UAVs that Israel produces. Some of the first UAVs were called "drones" and were not autonomous, because they required constant control input from a remote human pilot.



One of the predecessors of today's fully autonomous UAVs were the "aerial torpedoes", designed and built during World War One, which was flying until they ran out of fuel. They would then fall from the sky and deliver the explosive payload.



After the invention of the integrated circuit, using electronic auto-pilots, Modern UAVs are



controlled with both autopilots, and human controllers in ground stations. Computer technology now allows UAVs to make their own decisions, or fly autonomously.

Autonomous flight consists of the following operations, Interpreting sensor input, and merging the input of multiple sensors, Communicating with ground stations, satellites, and other UAVs and aircraft, determining the ideal course to fly for a given mission, based on sensors input., Determining the best maneuvers to perform for a given task, in some cases, cooperating with other UAVs to accomplish a common task.

With a growing number of UAVs in variety of applications it is difficult to develop one classification system that encompasses all UAVs. The UAVs will be classified into two main aspects of a UAV, their "performance specifications" and their"mission aspects".

The "specifications" of a UAV include

- Weight, payload

  ('super heavy weight-with take-off weights of over 2 tones , 'heavy weight'-weights between 200 and 2000 kg, 'medium weight'-weights 50kg up to 200 kg, 'light weight'-5 to 50 kg, Micro UAV(MAV)- under 5 kg-The light weight UAVs use primarily electric motors while the super heavy weights commonly use turbo jets or turbo fan engines.),



- Endurance ('long endurance'-borne for 24 hours or more -Global Hawk., medium endurance - between 5 and 24 hours - Predator. 'low endurance'-less than 5 hours endurance),
- Altitude (low altitude -up to 1000mtr-Micro UAVs, Medium altitude- 1000 - 10,000mtr-High altitude -over 10,000mtr-Global hawk, Predator B, Dark star etc.)
- Speed, wing loading, cost, engine type and power.

  The most common "mission aspects" are ISTAR (Intelligence, Surveillance, Target Acquisition and Reconnaissance), Combat, Multi-purpose, Vertical Take-off and landing, Radar and communication relay, Aerial Delivery and Resupply.

India's Current and Future UAVs and UCAVs:

UAVs:

- Lakshya PTA (Pilotless Target Aircraft)
- Heron (developed by IAI)
- Rustom 1 (12 hrs endurance),
- Gagan tactical
- **Mini UAVs:**
- Pawan
- kapothaka
- Searcher I & II
- DRDO Nishant (4 hr 30 mins endurance, reconnaissance)
- Rustom-H (often compared with Predator)
- Naval Rotary
- Slybird
- NETRA

UCAVs:



- Harpy.
- Harop (Like the Harpy, Harop is a suicide drone with 23-kg warhead).
- Rustom II (24 hrs endurance).
- DRDO AURA (Autonomous Unmanned Research Aircraft).
- Nirbhay UAV detailed.

The NETRA is an Indian, light-weight, autonomous UAV for surveillance and reconnaissance operations. It has been jointly developed by the Research and Development Establishment (R&DE), and Idea forge, a Mumbai-based private firm.

NETRA is a completely autonomous aerial vehicle for "hover and stare" operations. Its autonomous feature enable the user to concentrate on the mission objective of surveillance of an area, rather on operating the vehicle. Its quick deployment time and Vertical Take Off and Landing (VTOL) abilities enable it to be used in short range missions and in confined areas. NETRA helps to improve preparations of first responders in disaster management. The use of carbon-fibre has resulted in a light weight of 1.5 kg (3 lb), which makes the NETRA very portable.

NETRA can be launched from a small clearing, and it can fly up to a distance of 2.5 km from its take-off point. The operational altitude of the UAV is 250 m. With an on-board wireless transmitter, it can carry out surveillance in an area of 2.5 km Line of Sight (LOS) at the height of 300 m, for 30 minutes on a single battery charge. It has a high resolution camera with a pan/tilt and zoom to facilitate wider surveillance and can also carry a thermal camera for night operations. The zoom-in camera can identify human activity up to 500 m away, and can send live video feed of objects within a radius of 5 km. The images are sent through a local wireless network to laptops for monitoring. Flight and navigation is independent of user-input, and is controlled by an on-board auto-pilot .The user interface offers way point navigation, in which the user specifies the location of the target and the UAV automatically flies to that location.



A built-in fail-safe allows it to return to base if there is loss of communication with the controller or if the battery is low in power. The UAV cannot yet operate in rain and in wind velocity more than 16 knots (8mtr/second). Cruise speed is up to 30km/hr. To operate it requiring minimum 8 satellites signal reception at its home position and it takes Home position GR correction with in the area of max. 8 x 8 mtr. On board real time videos are stored automatically at ground control station which can be used for immediate post flying analysis. It can be well utilized in disaster situation to locate the approach route to the disaster site, to decide location of command post, to search and locate village and victims with exact positional GR, to review the operation and re- allocate the resources to conduct motion study to optimize the distribution of teams and to derive priorities during disaster

Our organization has purchased two vehicles and one Ground Control Station(GCS) at this moment after evaluating its performance during Uttarkhand.

****

INDIAN ETHOS DISASTER MANAGEMENT IN KAUTILYA 'ARTHASASTRA'



Narendra
Asstt. Commandant.

The term management is in vogue in our modern period. This concept of management came into industrial life at the end of the 19th century and in the beginning of the 20th century. The main objective of 'management' was to acquaint the new comers to the then emerging industrial life. The term management is as old as human civilization. The stone-age man managed many things like kindling of fire from flint stone, obtaining his prey with collective efforts etc. Thus, we can say that, the systematic approach for the study of the subject 'management' came very late but the concept was there since the history of life. In ancient (India) the concept of management persists since Vedic period. Systematic management practices are found in the Vedic literature. Literature elaborated the concept of disaster management in Kautilya Arthasastra (KA). This text is designed to run the biggest industry called 'nation'. Kautilya's book deals with the disasters faced by a nation. Hence, we shall understand the idea of disaster management from the great guru of the science of polity, known as Kautilya.

KAUTILYA'S IDEA ABOUT CALAMITY

We have seen that in modern times disasters are divided into two categories- natural and man-made. Kautilya calls them vyasana. In Sanskrit, the words nipata, pidana, apatti / vipatti and vyasana are used for calamity. Yet, the word vyasana means something which is caused by ill-fate. One can correlate this with hazards or natural calamities. This paper mainly deals with the natural calamities and will conclude with a cursory glance over manmade or unnatural calamities. Systematic categorization of any subject is a peculiarity of Kautilya. Following this, he has categorized the vyasana, i.e. calamities, into two categories :-

- Daivam i.e. natural
- Manusam i.e. manmade.

Daivam is indeed a very apt word used by Kautilya long ago. Daivam means that which is divine. Even the western scholars consider it as the act of God. We have already seen the etymology of disaster. Thus, it shows that all over the world disasters were considered as the result of astrological or supernatural Forces. In the fourth book of KA, eight types of daivam or natural calamities are mentioned. They are fire (agni), flood (udaka), epidemics (vyadhi), famine(durbhiksa), rats (musaka), beasts (vyala), snakes (sarpa) and demons (raksamsi).

For Kautilya, there is no control over the daivam or natural vyasana. But for manusavyasana, though misfortune is responsible for them, he equally blames human beings. Thus, for him, the calamities fall either by misfortune or by wrong policies. After mentioning them, he has warned the king that it was his duty to protect his subjects from these calamities.

Let us understand the views of Kautilya regarding the management of hazard.

1. FIRE

The eight calamities are once again listed in the above list. Fire comes at the beginning. It is considered as hazard which is caused by meteorological, geological, biological or extra terrestrial condition. It seems that Kautilya firmly believes on the idea, 'prevention is better than cure', thus preventive methods are discussed in the chapter 'rules of the city' .

Preventive Measures

In summer cooking should be done outside homes or under supervision of ten families collectively or being protected by ten firefighting implements.

- The roofs which are made up of grass or mats should be removed.
- Those who make use of fire in their profession should stay at one place.
- House owners should live near the front doors of their own houses, without gathering at one place.
- Collection of water jars should be placed in thousands on roads and at crossroads, gates and in royal offices.

Kautilya is aware about the nature of people. In society, very few people are concerned with the calamities that fall on the nation. It is a general tendency to avoid one's own responsibility as a citizen; hence punishments for not serving in such conditions are imposed in the Arthasastra.

Punishments

- For the owner, not running to save the house on fire, the fine is twelve panas (silver coin with ¼ part copper in it) and six panas for the tenant.
- In case fire is caused by negligence, the fine is fifty-four panas.
- In case of fire, if aid in the form of five jars or one big jar of water, a trough (drona), a ladder, an axe, a winnowing- basket, a hook, a hair-seizer and a skin bag (pakhal), these things are not provided then the punishment is one quarter of a pana.

2. WATER

In all the calamities Kautilya tried to establish the comparative importance of the calamities based on the loss caused by them. In both the calamities, i.e. fire and water, according to Kautilya water is the worst because fire may destroys half or one village, while flood affects many villages.

Preventive Measures

- In rainy season, Villagers situated near water should live away from the level of the floods.
- They should keep a collection of wooden planks, bamboos and boats.
- They should rescue a person being carried away by the flood by means of gourds, skin-bags, canoes, tree-stems and rope braids.

Punishment Those who do not go to the rescue, the fine is twelve panas, except in case of those without canoes.

Flood Warning In modern period, in flood management, minor, moderate, major, local and significant river rise are considered as the types of flood. In significant river rise, it is expected

that the warning is to be issued when the normal level of water will exceed the limit. The first point in the remedies in KA is, 'Villagers located near water should live away from the level of floods'. This indicates that keeping a constant watch on the water level as an important point in management was taken care of during the period of Kautilya.

3. DISEASE

Preventive Measures

- Magicians and others should counteract with secret means
- Physicians with medicines and holy ascetics with pacificatory and expiatory rites.

Animal Disease

- The rite called as Nirajana* is to be performed of shades and the belongings of animals
- Particular deities are to be worshiped

* Nirajana is a religious ceremony where light is waved around the deity. In modern period it is famous as Arti. It is also considered as the lustration of arms. It is performed by a king or general in the month of Asvina. But etymologically the word Nirajana is - Nira means 'water' and Ajana means 'touch'. Thus, it must have been the actual purification or cleansing of the place, person or object etc. but afterwards its religious side, that is mainly waving the lamp, must have become important.

In disease, Kautilya compared the loss caused by death of a lay man and a chief person. For him the loss of chief is not bearable. This is because common people are on a very large number but there is one chief among thousands, or not even one. Because of the high degree of spirit and intelligence, a common man always depends on him.

4. FAMINE

Between famine and disease, Kautilya opines that disease affects only one region and remedies can be found for it, while famine afflicts the whole country and leads to absence of livelihood for living beings which creates loss of the entire society.

Preventive Measures

- In case of drought, the king should make a store of seeds and food stuff and show favour to the subjects, institute the building of forts or water works such as constructing dams etc. with the grant of food, he should share his provisions with subjects or entrust the country to another king.
- Should seek shelter with allies or cause migration of people in that region where crops have grown, or settle along the sea, lakes or tanks.
- King should start sowings of grains, vegetables, roots and fruits along the water works or hunt deer, beast, birds, wild animals and fish.

5. RATS

Managing rats or mice may appear strange. From ancient period, Bharat was predominantly an

agricultural country. Naturally, rats or mice were considered as the greatest enemies. Mice were not only enemies in ancient time but also in modern period. Mice are really very serious problem faced by many countries even today. They decimate food on a large scale and are also responsible for diseases like plague, leptospirosis etc. We can see one example of terrified condition created by rat. On 23 June 2010, China faced a problem of rats. The river Yangtze got flooded on that day. The water level rose in Dangling Lake. The flood flushed out rat holes around the lake triggering a literal rat race. Tan Lulu, one of the employees of National Geographic News from WWF reported, "There are so many rats that you can kill three of them with one (strike). The report also mentioned the destruction caused by rats. According to that, rats have ravaged at least four million acres (1.6 million hectare) of farmland by eating roots and steams of trees (http://news. National geographic.com/news, 28th Oct 2010).Kautilya was aware of the destructive power of rats and hence he has included them in the national calamity.



Preventive Measures

- Cats and mongoose should be let loose.
- Grains should be strewed smeared with the milk of snuhi-plants or mixed with secret mixture (4.3.23).

MANU SAMA OR MAN MADE CALAMITIES

Regarding man made calamities, there is a controversy amongst the scholars of disaster management. But because Kautilya has considered man made calamities as disaster they are considered over here. In modern times, along with war, many other human caused disasters are embeded, viz. chemical and biological weapons, terrorism, riots, urban structure, fires, transport accidents, nuclear power accidents etc. Day by day, this list is increasing. During the period of Kautilya, apart from war and the agitation of subjects, other human disasters did not exist. Obviously, Kautilya dealt only with war and internal agitation. Following his style, once again, very systematic categorization of this man made calamity is done by Kautilya. In Vyasanadhikarikam, the topic which deals with calamities, Kautilya has broadly divided human calamities into two -

1. Internal agitation
2. External agitation.

The result of these two calamities is four threats to a nation.

These four threats faced by the nation are:

1. External threat supported internally
2. Internal threat supported externally
3. External threat supported externally
4. Internal threat supported internally.

The classification of the dangers connected with traitors and enemies is done by Kautilya. They are, **Suddhapatti-** Apatti from treasonable and from the enemies. These are two types of Suddhapatti.

Preventive measures

To prevent this, king should not use Force against the citizens. But apart from Force, what measures are to be used is not mentioned clearly. Why Force is not used is explained by Kautilya. According to him Force cannot be used against many people and in any case if it is used, then Kautilya hesitates about its result. Rather, he fears that it may cause another disaster. At the same time he strongly supports the use of Force against the leaders of these

people. This Force is categorised as,

1. Stratagem through kinsmen - In this type of punishment seducing close relatives, such as real brother, son from a maiden or wife of the person, against him.
2. Suppression by secret means deploying treasonable high officer with a weak army for different expeditions such as destroying forest, enemy's town, establishing a district officer or a frontier officer in a region separated by a wilderness, so on and so forth. On these expeditions secret agents who are there in the army should assassin him and should declare that he was killed at the time of war.

   This secret suppression includes the pleasure trip, arranging parties etc. The list of measures is very big but few things are mentioned above.

Amisra - When treasonable and non-treasonable come together, the apatti which forms is Amisra. Amisra is mix. Here, there is no mixing of treasonable and enemy. To control Amisra, success should be sought through the non-treasonable. Because without support it is difficult to attain success (9.6.9).

Paramisra - When allies and enemies come together then Paramisrapatti (9.6.11).

- Here success is to be achieved by allies. This is because it is easy to establish peace with ally and not with an enemy (9.6.12).

The preventive measures or how to tackle these a pattis are discussed in full length in the book. Rather, for all types of threats, many measures are suggested by Kautilya. He firmly believes in the ideology that 'people follow their leader'. Thus, in the list of suggestions for monitoring internal agitation, training of the king comes first. Apart from that, appointing spies for surveillance everywhere within the country and outside the country, appointment of village officers etc. are suggested. In external agitation, once again appointing spies to create rift between enemy camps, securing friendship with loyal kings, keeping army and economy strong to check both the agitation, such are the suggested measures. We are not going deep into it as it all comes under science of polity; only a few examples are mentioned above. This will be another topic of research. But one thing is undisputed that natural and man-made both the disasters were discussed by Kautilya.

****

Community Awareness In Disaster Management - Role of NDRF



SI Mulgiri Shivaji

Introduction

The community based awareness programme in disaster perspective involves in the backdrop of vulnerability of communities socially as well as physically to disasters. Disasters made the communities vulnerable, both socially as well as physically. Disasters occur periodically with varying intensities rendering the communities totally unprepared to meet such contingencies. Associated with the disasters are poverty and disproportionate increase in the number of unemployed, semi employed and underemployed among the rural people vis-à-vis the existing productive resource base of the society. Employment is a critical economic & social issue for these people, more so in the context of a mono-rural economy predominantly based on agriculture, who for economic and social security migrate heavily to the urban, commercial and industrial centres. The cycle of disasters affected the very productive base of the communities in the targeted areas. Community participation has been recognized as the additional element in disaster management necessary to reverse the worldwide trend of exponential increase in disaster occurrence of and loss from small- and medium-scale disasters, build a culture of safety, and ensure sustainable development for all. In case of disasters, the people at the community level have more to lose because they are the ones directly hit by disasters, whether major or minor. They are the first ones to become vulnerable to the effects of such hazardous events. On the other hand, they have the most to gain if they can reduce the impact of disasters on their community. This concept gave rise to the idea of community-based disaster management where communities are put at the forefront.

WHAT IS "COMMUNITY" IN DISASTER PERSPECTIVE

A community is a group of individual and households living in the same location and having the same hazard exposure, who can share the objectives and goals in disaster risk reduction. During a disaster the local population is the first responder. Through community awareness the community is properly sensitized about the precautions and preventive actions to be taken in case of any calamity resulting in loss of life and damage to property.

ADVANTAGE OF COMMUNITY BASED AWARENESS PROGRAMME IN DISASTER MANAGEMENT

- Disaster preparedness of the communities through capability formation and capacity building of the human resource potential to develop the required knowledge, skills and awareness to meet various contingencies within a minimum possible response time (before, during and after disasters).

- Community awareness and preparedness about disaster warning system based on weather forecasting system of the Meteorological Department as well as of the traditional knowledge system.
- Building the human resource potential through knowledge, skills and awareness for disaster management.
- Actual hands-on training for disaster preparedness (before, during and after disaster) and mitigation through latest development in the weather forecasting system and the traditional knowledge system.

ROLE OF NDRF IN COMMUNITY BASED DISASTER MANAGEMENT

The Disaster Management Act, 2005 has made the statutory provisions for the constitution of the National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters. Accordingly on 19th January 2006 National Disaster Response Force was raised. Now the force is gradually emerging as the most visible and vibrant multi-disciplinary, multi-skilled, high-tech force capable of dealing with all types of natural and man-made disasters.

Awareness and preparedness campaigns are key components of proactive approach on Disaster Management. In case of any disaster, the local population is the actual first responder. It may take some time for the district/ state administration to mobilize rescue teams, including police, fire personnel etc. If the local people are properly sensitized about the precautions and preventive actions to be taken in case of any calamity, the loss of life and damage to property can be drastically reduced. Thus, one of the most important tasks of NDRF is to continuously engage in the Public Awareness programmes in a big way which includes training of people (the first responders) and concerned government officials at different levels in the areas with high vulnerability. Along with Public Awareness exercises NDRF is also actively engaged in area familiarization exercises. Such exercises provide first-hand knowledge about the topography, access route to various disaster prone areas, availability of local infrastructure/ logistics which can be used in disaster response operations.

TASK BEFORE NDRF DURING AREA FAMILIARIZATION EXERCISES

The teams of National Disaster Response Force during area familiarization exercise conduct the following activities.

1. Acquaint with the topography and terrain of the area, past disasters and collection of Map of the area. (Including hazard Map)
2. Details of area including Villages, Tulaka / Tehsils and towns are covering.
3. Familiarization with the agencies responsible for Disaster Response including Government machinery. (Through meetings, discussions, exercise, Mock drill etc.)
4. Acquaint with the vulnerabilities like chemical Industry, Oil Refinery, Dam etc and threat faced by the people of the area. (Collection of Disaster history of the area).
5. Interaction/meeting/exercise with voluntary organizations like NSS, Civil Defence, Nehru Yuvak Kendra, Home Guards, NCC, School Children, NGOs etc.
6. Resource Mapping at each location and availability of vital resources like Hospitals, Doctors, Paramedics, Ambulance, Fire brigades, Rail heads, Airports, trucks, tractors, trolleys, rescue equipments etc. region with distance and time taken to travel was given importance in resource mapping.

7. Data about resources available with district administration like boats, Emergency Medical Service, Veterinary facilities, Schools, Colleges etc.

OBJECTIVES BEFORE NDRF DURING COMMUNITY AWARENESS PROGRAMME

Good practices in the community based approaches to disaster mitigation highlight key success factors such as applying best practice methodologies of community development to community based disaster mitigation, tapping traditional organizational structures and mechanisms (including formal and informal community leaders), and capability building activities with the community disaster committees and volunteers. The importance of various forms and channels of public awareness and education using local dialects, values and culture and partnerships of the community with various stakeholders such as community based organizations, community leaders, local government units, higher level government, NGOs and less vulnerable groups.

Major benefits in the community awareness programme based risk assessment, mitigation planning and implementation processes underscored include building confidence, pride in being able to make a difference, and enhanced capabilities to pursue disaster preparedness, mitigation as well as bigger development responsibilities at the local level. Additionally, individual and community ownership, commitment and concerted actions in disaster mitigation, including resource mobilization produce a wide range of appropriate, innovative and doable mitigation solutions, which are cost-effective and sustainable.

The involvement of local people promotes self-reliance and ensures that emergency management plans meet local needs and circumstances. Local communities are essential sources of indigenous knowledge regarding hazards and mitigation. Disaster relief and recovery responses that do not directly involve the affected communities in deciding their own needs and priorities frequently provide in appropriate and unsustainable forms of assistance.

In community awareness programmes NDRF team is giving lecture on the various kinds of disasters, relief and management especially related to schools saying that in any disaster a school bears the most casualties giving stress on the importance of awareness among students and teachers. Students are eagerly volunteering in the NDRF demonstration including ways of rescue and search. Also if school situated in seismic zones, encouraging school management to develop a school evacuation plans.

Responsibilities assigns to teachers and students to plan evacuations. It is also pertinent to prepare a student release plan whereby school authorities can be informed of responsible people who might be detailed to pick children incase of emergencies. A safe place may also be located for assembly after evacuation, and escape routes should be direct. Younger children must be evacuated first and congestion in corridors should be avoided.

Another important point to note is the maintenance of record which will show when each child leaves to whom the child was released and where they were headed to. All records and instructions will be kept in a safe place and available for use. The NDRF also listed the following as essentials in case of an earthquake: first aid, flashlight, water which should be stored, energy foods, blankets, tents, radio, emergency lights, fire extinguishers, fire blankets etc. Investments in community-based preparedness and early warning systems have proved to save lives, protect property, and reduce economic losses.

During community awareness programme rehearsal, evacuation and response procedures

are practicing and evaluating. In order to build disaster-resilient communities, they first need to be empowered so that community members can cope with the adverse effects of natural hazards. This is the most effective approach to achieving sustainability in dealing with disaster risks. NDRF is carrying out various community-based programmes to establish disaster prevention as an essential component of sustainable development. Its activities include improvement of the safety levels of core community facilities such as schools, the dissemination of best practices in disaster risk management at the community level and the formulation of integrated programmes for sustainable development through disaster risk management initiatives.

Besides lessons on search and rescue techniques, rendering first aid/ CPR to a drowning patient, use of aids like life buoy, life Jacket, ropes, rafts made of dry wood, bamboos, coconut tied with rope, straw raft, empty drums, empty sealed tins, plastic Jeri cane, plastic bottles, stem of bananas plants, Cot wrapped with polythene sheet, vehicles tube etc is also organizing with demonstration to make the people aware and trained so that they can save themselves and others during disasters with the help of house hold/local items. Demonstration on First Aid, method of artificial breathing/respiration, CPR to unconscious victims, splinting and evacuation of injured person were also organizing by the teams. Demonstration on search, rescue, and evacuation techniques of persons from high rise buildings is also organizing.

In a nutshell during community awareness programme National Disaster Response Force (NDRF) to fulfill the objectives of community based disaster management is conducting the following activities.

a) Organizing Training /Demonstration programme on MFR/CSSR/Flood Rescue/ Slithering etc.

b) Organizing Film show on past disaster and mitigation scenarios.

c) Organizing disaster awareness programme in the colleges/schools with the help of local authorities.

d) Facilitating community training and also provided technical assistance/ advises, sensitized the local bodies/authorities/general people of the area.

e) Carrying out mock drill exercises along with representatives of the community and local authorities in order to counter the challenges of disaster.

f) Community awareness materials such as Leaflets, pamphlets etc is also distributing among local public.

****




NDRF
INDIA


SAVE
THE EAR



Habits You Might Be Able to Change to Save The Earth



Anil Shekhawat,
Asstt. Commandant

Homo sapiens means "wise person." But considering our behaviours that are putting the Earth's ecosystems at risk, we haven't been very wise at all. Every single day, many of our personal choices and individual actions negatively impact the environment in myriad ways.

From turning on a light switch to throwing away a plastic bottle, even the most mundane actions have a cumulative negative effect on the planet Earth, the home we share with countless other Earthlings.

Think about that brand new plastic bag you took home today from the store. That bag can take up to 1,000 years to fully decompose, and if it doesn't end up in a landfill, it could end up in the ocean and in the stomach of a living being; a fatal occurrence that happens all the time. In our country , a staggering billion new plastic bags enter into circulation every single day. The Pacific Garbage Patch, a massive swirling collection of plastic trash in the Oceans, is estimated to be anywhere from 270,000 square miles to more than 5,800,000 square miles (up to 12 percent the size of the entire Indian Ocean).

With all the ways we affect the health of the planet, it's hard to know exactly what changes might have the greatest impact. Plus, every person is different. Some people drive every day, while others are rarely behind the wheel. Some of us love to buy stuff; others tend to be minimalist.

Taking into account these variations, here are three of the most environmentally damaging things you probably do that you might be able to

change. If you're truly interested in reducing your impact on the environment and helping future generations of Earthlings have a better chance of surviving with the planet's rapidly dwindling resources. These recommendations should be high on your to-do (or rather, not-do) list.

1. Be Vegetarian or Eat Less Meat

It's difficult to overstate the massive negative impact the meat industry has on the environment. According to a staggering report published by the World Watch Institute, more than half of global greenhouse gas emissions are caused by animal agriculture. It's no coincidence that the carbon footprint of the average meat eater is larger than that of a vegetarian by around 1.5 tons of CO2.

Meat produces a total of 30kg of greenhouse gas (GHG) per kg of food, while carrots, potatoes and rice produce 0.42, 0.45 and 1.3 kg GHG per kg of food, respectively. No wonder the United Nations said a global shift toward eating less meat is necessary to prevent the worst effects of climate change.

Keeping an animal alive is also resource intensive. Approximately 8000 litre of water are needed to produce a single Kg of meat. Conversely, only 150 litres are required to produce a kg of vegetables.

The meat industry also maintains society's dependence on fossil fuels. Approximately 25 kilocalories of fossil fuel energy is required to produce 1 kilocalorie of all meat-based protein. But only 2.2 kilocalories of fossil fuel input is needed to produce 1 kilocalorie of grain-based protein.

The majority of are meat-eaters and meat as a regular part of their diet.

So is it crazy to think that people would ever stop eating meat? One of the arguments meat-eaters commonly make is that humans need meat, that it's a necessary part of a healthy diet. But that's simply not true. Nutritionist sets the record straight:

A popular misconception is that animal products are the best source of protein. One important reason this myth has been perpetuated is because the amino acids, The building blocks of protein are assembled in a way in animal foods that more closely resembles what humans actually utilize. However, we now know that this is inconsequential. When you consume any protein, it is broken down via digestion into its separate amino acid constituents and is pooled in the blood for further use. When the body needs to construct a protein for an enzyme or to repair muscles tissue, it collects the necessary amino acids and strings them back together in the sequence appropriate for what it is currently creating. This occurs regardless whether you consume animal or plant protein.

The U.S. Department of Agriculture's (USDA) recommended daily allowance of protein for adult men and women is 0.7 grams for every kilogram (about 2 pounds) of body weight. So an average 130 pound female should be consuming 46 grams of protein per day. A 170 pound male needs 62 grams.

Nutritionist also points out that though we only need 10 percent of our caloric intake to be protein, we're also generally eating too much protein, which is bad for our health:

Many people are consuming approximately 20 to 30 percent of their calories from protein, which equals 90 to 135 grams of protein on an 1,800 calorie diet (typical female intake) and 125 to 188 grams of protein on a 2,500 calorie diet (average male intake). This is equivalent to two to three times more than the USDA recommendations. Much of this excess protein comes from animal sources,

which may be particularly damaging. Excess protein taxes the kidneys, contributes to gout and is associated with an increased risk for many chronic diseases.

The U.S. addiction to meat is intense: Americans eat nearly four times as much meat as the global average. It may be tasty, but from a health standpoint, every last bloody morsel is unnecessary. "Whole plant foods, as provided in nature,"Nutritionist says"offer the ideal amount of protein necessary for growth, maintenance and functioning of metabolic processes."

Many of today's top performing athletes would agree with assessment.

Eating vegetables over meat is healthier, leads to higher physical performance, is good for the planet and it's also more ethical, as it avoids the killing of intelligent animals. In many ways, moving away from carnivorism toward veganism is a more evolved, more enlightened state of being.

Cutting out meat one day a week could be a good way to start. "Going meatless once a week may reduce your risk of chronic preventable conditions like cancer, cardiovascular disease, diabetes and obesity," notes the Meatless Monday website. "And going meatless once a week can also help reduce our carbon footprint and save precious resources like fossil fuels and fresh water."

If you're still not convinced that taking meat off your menu or at least reducing your consumption of it is one of the most important things you can do for the planet's health, maybe the man whose name is synonymous with genius might push you over the edge. Albert Einstein once said, "Nothing will benefit human health and increase chances of survival for life on Earth as much as the evolution to a vegetarian diet."

2. Less population

This one is a no brainer. Pretty much all of the anthropogenic or human caused environmental maladies the Earth is undergoing would be less intense if there were fewer people in the end, it's a numbers game. Climate change, species extinction, deforestation, ocean acidification, air pollution, spread of disease, destructive farming practices, pesticide overuse, resource depletion the intensity of all these crises is directly tied to human overpopulation. Martin Luther King Jr., was aware of how problematic our species' rapid multiplication is, calling overpopulation "the modern plague."

The United Nations warns: "Rapidly increasing population exacerbates existing problems, such as transnational crime, economic interdependency, climate change, the spread of diseases such as HIV/AIDS and various other pandemics and such social issues as gender equality, reproductive health, safe motherhood, human rights, emergency situations and so much more."

Take water, the most important resource for carbon based life after air. Though three fourths of the planet is covered in water, less than 1 percent of it is readily accessible freshwater that is available for human use. But by 2025, when the population reaches 8.1 billion, more than half the world's people will face water based vulnerability as demand for available freshwater reaches 70 percent. And while it may feel like rain just appears out of the blue, the Earth is a closed loop system. Thus water, at least for the foreseeable future, is a finite resource.

Keeping the human population to an acceptable rate of growth isn't just about helping the environment, it's about helping humans survive. As Roger Bengston, a founding board member of World Population Balance, puts it, "The point of population stabilization is to reduce or minimize misery."

In 1992, 1,700 of the world's leading scientists, spanning 70 countries and including the

majority of Nobel laureates in the sciences, issued a global appeal to limit population growth. In their "World Scientists' Warning to Humanity," they write:

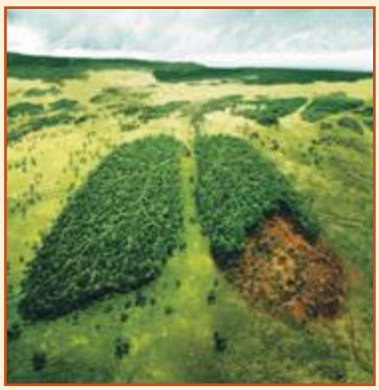
Pressures resulting from unrestrained population growth put demands on the natural world that can overwhelm any efforts to achieve a sustainable future. If we are to halt the destruction of our environment, we must accept limits to that growth.

The warning was spearheaded by Nobel laureate Henry W. Kendall, former chairman of the Union of Concerned Scientists. He described our precarious situation bluntly: "If we don't halt population growth with justice and compassion, it will be done for us by nature, brutally and without pity and will leave a ravaged world."

Getting the population growth rate to stop skyrocketing into an increasingly overcrowded future is no small task. Doing it through official governmental channels, as China did in the late '70s when it launched its one child policy (which it recently upped to two children), opens up a Pandora's box.

Robert Engelman, president of the World watch Institute, has a better idea: Put the decision in the hands of women. In his book State of the World 2012: Moving Toward Sustainable Prosperity, he lays out a series of initiatives, including access to contraception, guaranteed secondary school education and the eradication of gender bias "from law, economic opportunity, health and culture," which he argues will ensure a decline in the birth rate (with a goal of stopping short of 9 billion), solely based on a woman's intention to have smaller families or even no children.

"Unsustainable population growth can only be effectively and ethically addressed by empowering women to become pregnant only when they themselves choose to do so," Engelman writes.



Philip Njuguna, a pastor in Nairobi, Kenya, puts it more plainly: "When the family is small, whatever little they have they are able to share. There is peace."

That's good advice, particularly in impoverished and populous countries where the sheer number of people puts an unrelenting pressure on limited resources. But that advice also applies to rich countries, whose citizens have much bigger carbon footprints. According to study, "an extra child born to a woman ultimately increases her carbon legacy by an amount 9,441 metric tons"

The study found that having one less child would yield a long term environmental benefit. "The carbon legacy and greenhouse gas impact of an extra child is almost 20 times more important than some of the other environmentally sensitive practices people might employ their entire lives things like driving a high mileage car, recycling or using energy efficient appliances and light bulbs,"

3. Fly Less or use alternate mode of transportation.

The average frequent air traveler generates about 19 tons of carbon dioxide a year; So if you take five long flights a year, they may well account for three quarters of the emissions you create.

In the large scheme of things, aviation is a fairly small industry, but it has a disproportionately

big impact on the Earth's climate, accounting for somewhere between five and nine percent of the total impact human activity has on climate change and its impact is going to grow, with air travel volume steadily increasing and faster than fuel efficiency gains can compensate.

Environmentalists point out that, compared to other modes of transport like driving a car or taking a train, flying has a much greater climate impact per unit of distance traveled. Since 1990, CO2 emissions from international aviation have increased 83 percent. The aviation industry is expanding rapidly in part due to regulatory and taxing policies that do not reflect the true environmental costs of flying. "Cheap" fares may turn out to be costly in terms of climate change.

A special characteristic of aircraft emissions is that most of them are produced at cruising altitudes high in the atmosphere. Scientific studies have shown that these high altitude emissions have a more harmful climate impact because they trigger a series of chemical reactions and atmospheric effects that have a net warming effect. The IPCC [Intergovernmental Panel on Climate Change] , for example, has estimated that the climate impact of aircraft is two to four times greater than the effect of their carbon dioxide emissions alone.

What Else Can You Do?

Of course, there are many other things you can do, from not buying plastic water bottles to using cloth shopping bags to simply reducing the amount of stuff you buy. When it comes to consumption, the old adage "reduce, reuse, recycle" isn't just a list it's a hierarchy. The most important thing you can do is reduce your consumption. If you have to consume, try to reuse something rather than buying it new. And if you have to buy it new, recycle it when you're done.

We can't all be a part of vegetarian, one child families who never fly. But if we can all try to get a little closer to that ideal, it'll be better for everybody for all Earthlings, not just Homo sapiens. May be then we can finally start living up to our name.

****







Operational Safety Measures While Dealing In Radiological Emergency



SI Sanjit Kumar Gupta

RADIOLOGICAL EMERGENCY

Radiological emergency is an emergency condition that has a risk of the radiation exposure due to a radioactive source. One makes sure that the radiological emergency situations can be occurred anytime and anywhere when it is considered that the radiation sources are used in lots of areas such as industry, medicine and R &D etc.

Radioactive contamination of public can happen by interaction between person and lost or stolen radioactive sources. Radioactive contamination can also happen sometimes intentionally. In such emergency situations, in general, it can be noticed after people show symptoms of acute radiation syndrome or high level contamination of radioactive material is measured.

POTENTIAL DANGERS - The people who are exposed to radioactive material can face with radiation injuries that require special treatments. It can also be observed the serious damage around contamination region on body. Moreover, radioactivity carried by the people can spread over large areas and even local products. Besides facing a brutal reaction, the economic consequences of the contamination will be serious unless the workers and production companies that prevention of spreading on time by quickly locating the source.

It is not acceptable as dangerous that the emergency response team stays in the contaminated region in a limited time (around minutes).However, one keeps in mind the injuries caused by the level of contamination within minutes if the suitable conditions are not available. (personal

protective equipment etc). The level of injury to be occurred in lung as a result of breathing the contaminated material is supposed to be equal to that of breathing the smoke at a distance,100m, away from the fire or explosion point.

While at the radiological emergency surface/external contamination regarding the level of radioactivity creates less danger, situation of unintentional intake affects the health of individuals much more. The radiation measurement devices used cases can determine radiation effects due to surface/external exposure, but the internal exposure cannot be determined as accurately as external exposure. Consequently, the danger of the internal exposure cannot be determined as successfully as the possible risk/effect of external exposure.

The probability of being influenced of the medical emergency team who acts or the personnel who carry the injurers exposed to the radiation and workers/staffs is quite low. If the basic safeguards are taken an action (i.e., use of glove & mask etc.).The danger of radiation is no longer an issue.

HOW CAN WE BE AWARE OF

The radiological emergency condition can be invisible. In other to think whether there is a potential radiological emergency condition in our environment, the information and observation to be taken into account are given as follows;

1. Symptoms caused by radiation from an unknown source
2. Lost hazardous radioactive source
3. Stolen hazardous radioactive source
4. Unowned hazardous radioactive source
5. Elimination of uncontrolled hazardous radioactive source
6. Radiography : unshielded or damaged radioactive source
7. Radiography: burned radioactive source
8. Damage on the shield tagged as dangerous radioactive source
9. Re-entry of satellite containing radioactive source to the atmosphere
10. Accident due to the nuclear weapon
11. Accident during transportation
12. Emergency situation due to the radiological medicine
13. Emergency situation during the radiotherapy process
14. Severe accidents due to the high level dose or exposure
15. Certain terrorist threats
16. Possible terrorist threats
17. Explosive devices emitting radioactive particles
18. Pollution of water resources intentionally
19. Pollution of foods and byproducts intentionally.
20. Reading high radiation level in measuring devices.
21. Announcements an international emergency situation by IAEA or any country.

IF YOU ARE OUTSIDE; WHEN RADIOLOGICAL EMERGENCY THEN;

- Immediately lie flat on the ground or wall nearby or depressed area as soon as you see the blast-light.

- Cover your head with your hands.
- Pull your knees towards your stomach.
- Take cover yourself (with your clothes).
- Keep your condition till the flash, hot air, and flying and falling debris (for at least 1 min).
- Be aware of intense flash-light coming from the explosion of a nuclear weapon then , head urgently for nearest shelter without panic . You have 30-60 min before you reach the shelter.
- Protect your mouth and nose with swab/cloth etc.
- Before you enter the shelter, shake, sweep and clean your clothes. Change it if necessary.
- You must wash your hands, face hairs, and other uncovered part of your body.
- Take the necessary eqpt with you and enter the shelter.

IF YOU ARE AT HOME OR OFFICE;

- Duck and cover
- To protect from the falling and flying objects such as broken windows pieces
- Turn your back to the windows
- Lie down under/behind the table, berth, and chair
- Make the preparation mentioned to go the shelter once the danger is over
- You have 30-60 min to reach the shelter.

IF YOU ARE IN A VEHICLE;

Once you see the flash

- Stop the car and engine
- Close your uncovered parts
- Put cover your head with your hands! (protect your head!)
- Duck and cover! Get down on your knees as facing back to the windows
- Get start the preparation to enter the shelter when the danger is over

IF YOU ARE AT SCHOOL;

Once you see the flash,

- Duck and cover!
- Lie down under/behind the table
- Get down on your knees as facing back to the windows
- Enter the shelter by the order of your teacher without hesitation

ROLE OF NDRF DURING , RADIOLOGICAL EMERGENCY

1) Provide specialized response for detection of radiation as well as rescue and relief.
2) Decontamination of the area & personnel
3) Extrication of victims - live or dead
4) First medial support to victims
5) Removal of debris
6) To extend moral support to victims
7) Co-ordination with other agencies engaged in rescue / relief work

आपदा



आरक्षक
नीरज कुमार सिंह

माली ने जब बाग लगाए,
सीच सीच कर फुल लगाए ।
एक हवा का झोका आये,
फुल पत्ती तना तक ले जाए ।
तब माली करे हाय हाय ,
इस आपदा से कौन बचाए ।।

ढोल नगारे की हो सरगम,
हर मानस का हर्षित हो मन ।
ऐसे मे धरती हिल जाए ,
इस आपदा से कौन बचाए ।।

हवा सागर संग करे अटखेली,
सुरज के संग आख मिचोली ।
वही सागर सुनामी बन जाए ,
इस आपदा से कौन बचाए ।।

अंधेरो का बना उजाला,
जन मानस का है रखवालाा ।
राष्ट्रीय आपदा मोचन बल का पकडो हाथ,
हर आपदा मे है आपके साथ
हर आपदा मे है आपके साथ ।।





DISASTER RESPONSE

Kolkata Flyover tragedy: NDRF team carried out "Humanitarian Assistance & Disaster Relief" Operation

On 31st March, 2016 a part of under construction Vivekanand flyover near Girish Park in Kolkata, (WB) collapsed, left many passengers trapped under the rubbles of debris.10 Urban Search & Rescue (USAR) teams of NDRF comprising more than 400 rescuers along with specialized equipment meant for Collapsed Structure Search and Rescue (CSSR) operations i.e. Air Lifting Bags, Gas Cutter, Chain Saws, Chipping Hammer, Hydraulic Jacks, Angle Cutters and Medical First Aid kits immediately swung into action to assist the local administration. K9 and life detectors were also used to locate victims stuck under the rubbles. During the operation, NDRF retrieved 10 dead bodies.



NDRF Rescue Operation at Flyover Collapsed Site in Kolkata, West Bengal.

Leakage of Fume/Gas near Bangalore

On 08th March, 2016, a tanker laden with Thionyl Chloride, a dangerous chemical toppled on the Bangaluru-Mysuru Highway, created panic among the locals. Interrupted the highway traffic for several hour. A Chemical, Biological, Radioactive and Nuclear (CBRN) combat team of the NDRF immediately rushed to incident site. NDRF team with the help of Police, Fire Service and civil authority contained its fumes and shifted the tanker to an isolated place.



NDRF Rescuers Containing Fumes of Chemical

NDRF Saved Drowning Person in Guwahati

On 13th Jan, 2016,alert rescuers of NDRF response base, IWT, Guwahati observed some movement in river Brahmaputra, responded promptly and rescued 01 drowning victim namely Dalita Barman. This was not the first time that timely action of team saved life of a person but on many occasions, NDRF based at IWT Guwahati has saved lives from river Brahmputra.



NDRF : A Humanitarian Force of Country

Fire incident in Mumtaz Market

On 12th March, 2016, due to short circuit, a massive fire broke out in Mumtaz Market, Lucknow. The dense population and thick lanes obstructed fire tenders to reach at the incident site. NDRF team stationed at Lucknow was directed to provide all possible assistance to the fire services to douse the fire. As heavy cloud of smoke had created obstruction for fire tenders to operate due to poor visibility and presence of poisonous gas fumes. NDRF team implied smoke ventilators to make visibility. Due to heat of fire, the shutters, the walls and even the poured water which was waterlogged in the basement became hot and difficult to touch. This was truly a gallant move of NDRF rescuers to go in the building with such eventualities, to cut the shutters and make way for pouring of water. NDRF assisted the district authorities and the shop keepers to pull out the remaining valuable goods from the go-downs and shop. In the process, by using Self-contained Breathing Apparatus, NDRF rescuers could reach the fire incident site to assist fire services to douse the fire. After four hours of continuous and exhaustive endeavor of NDRF personnel the fire men could douse off the major fire completely.



NDRF Rescuers Are In Action During A Fire Incident in Lucknow, U.P

NDRF organised National Workshop on 'Strengthening National Response Capabilities'

On 7th March, 2016, National Disaster Response Force (NDRF) organised a National Workshop on 'Strengthening National Response Capabilities' to provide a platform to prepare a roadmap to strengthen national disaster response capabilities. Eminent dignitaries from various fields participated in the workshop and shared their view on effective disaster response in India.

On this occasion, a book "Nepal Bhukamp : Zindagi Ki Talash" written by Shri O P Singh, DG NDRF on his own experience while responding in Nepal after earthquake 2015 was released which was published by National Institute of Disaster Management (NIDM). Besides, NDRF Coffee Table Book-2016 and SOP's on various DM topics were also released.

Dr.P.K. Mishra, Additional Principal Secretary, PMO delivered a key note address in the inaugural session. Sh. Kiren Rijiju, Minister of State (Home) was the chief guest in the closing ceremony.



Sh. Kiren Rijiju, Hon'ble MoS Home and Other Dignitaries Releasing NDRF Publication

NWWA Organized Free Tea Camp at J.P. N AIIMS Trauma Centre

National Disaster Response Force (NDRF's) Wive's Welfare Association (NWWA) Organized a "Free Tea Camp" for all necessitous people at JPN AIIMS Trauma Centre, New Delhi w.e.f, 1st to 31st January, 2016. "Free Tea Camp" was inaugurated by the President of NWWA Smt. Neelam Singh to provide Tea to poor and needy people during cold and chilly winter season.



President NWWA offering Tea to Poor and Needy People at JPN, AIIMS Trauma Centre, N/Delhi.

Deployment During World Cultural Festival-2016 in Delhi

The "World Cultural Festival-2016" was organized by "Art of Living" foundation w.e.f 11th to13th March, 2016 on the bank of Yamuna river in Delhi to celebrate the diversity in cultures from across the world. Eight NDRF teams with boats, CBRN and other equipment were positioned at the bank of Yamuna River near the venue to respond promptly in case of any eventuality. Medical component of NDRF comprising of Doctors and Paramedics provided medical first aid to the 225 needy persons during mega event.





NDRF Team Providing Medical Aid During World Cultural Festival

Ganga Sagar Mela-2016

The Ganga Sagar Mela, at Distt-South 24 Paragna,WB ,one of the biggest religious events of the country that witnessed the gathering of lakhs of pilgrims from 09th -16th January, 2016. One team of NDRF was deployed on Ghats at Ganga Sagar to respond any emergency. Apart from deployment, NDRF team assisted local administration in the distribution of relief.





Ready To Act : Vigil by NDRF During Ganga Sagar Mela

NWWA (NDRF Wives Welfare Association) "Sanjivani" Organised a Fete in Ghaziabad

On 2nd April, 2016, a Fete was organised by NDRF under the aegis of NWWA (NDRF Wive's Welfare Association) "Sanjivani" at Ghaziabad. Fete provided a unique platform, wherein NDRF personnel from battalions put up unique Arts, artefacts and handicrafts. The fete arena had also put up food courts which offered delicious multi-cuisines from various states. Indian Cinema's comedy king and great actor Asrani and Indian Olympian wrestler Yogeshwar Dutt graced the occasion as special invites. President of the association and wife of Sh. O.P. Singh, DG, NDRF, Smt. Neelam Singh, intimated that NWWA will work to empower its member as well as their family and society.





Sh. O.P. Singh, DG NDRF Inaugurating NDRF Fete in Ghaziabad, U.P

Defexpo-2016

One team of NDRF comprising of 42 responders equipped with state-of-the-art disaster response equipment was deployed w.e.f. 28th to 31st March, 2016 for emergency response at Naqueri Betul, Quepem, Goa.





In Aide to Local Administration

MOCK DRILL

RADIOLOGICAL EMERGENCIES

On 19th & 20th March, 2016, a joint mock radioactive hazard exercise with participation of National Disaster Management Authority (NDMA), representatives from the Mumbai district collectorate, scientists from the Crisis Management Group of Department of Atomic Energy (CMG-DAE), Atomic Energy Regulatory Board (AERB), Bhabha Atomic Research Centre (BARC), Central Industrial Security Force (CISF), Mumbai Police, Mumbai Fire Department, Mumbai International Airport Ltd and Brihan Mumbai Municipal Corporation and NDRF was conducted at the Mumbai International airport with focus on initial response based on detection, protection and decontamination.

"This exercise was conducted in two phases. On the first day, a Table Top exercise was conducted to discuss roles, responsibilities and capabilities of various stakeholders for such emergencies and to improve the mechanism of multi agency co-ordination and integrated response followed by a mock exercise depicting radioactive leakage in a fire accident at the Cargo Complex. Joint Exercise was conducted to check preparedness and response capabilities of various organisations. During the exercise NDRF team demonstrated its capabilities as well as use of various CBRN equipment like Micro R-Survey Meter, Isotope Identifier, Telerad, etc.



NDRF Rescuers in Radiological Exercise in Mumbai International Airport

MOCK DRILL

LAND SLIDE

On 21st Jan, 2016, NDRF team participated in Mock Exercise on Land Slide related disaster organized at Idukki, Kerala. Prior to mock exercise a co-ordination conference and table top exercise were organized at District Collector office Idukki





Demonstration of Capabilities By NDRF USAR Team

TSUNAMI MOCK

On 11th March, 2016, NDRF team participated in the Tsunami Mock Drill at coastal districts of Kerala. Prior to the exercise, a table top exercise was conducted on 10th March 2016 at Chandragiri, ILDMPTP Nagar,Thiruvananthapuram, which was chaired by Sh. P.K. Mohanty, IAS Chief Secretary, Govt. of Kerala. Dr. Shekhar L Kuriakose, Member KSDMA, Shri S.P. Selvan, DIG NDRF, Ms Rekha. Nambiar, Commandant, 4th BnNDRF and representative from various stakeholders and role of the stakeholders participated in the exercise.

NDRF team participated in the mock drill at Thiruvananthapuram and Alappuzha. NDRF team cordoned the area and established the staging area, communication center, MFR Station and prepared IRB to meet any emergency. Various agencies including revenue, transport, health, PWD, Police department, Fire Department, ITBP, Coast Guard participated in the mock exercise.





Tsunami Mock Exercise in Kerala

MOCK DRILL

CHEMICAL (INDUSTRIAL)

During the quarter, NDRF organised series of Joint Mock exercise on Chemical (Industrial) disaster at Rudrapur, Udham Singh Nagar (UKD), GAIL (India) Ltd, Noida, IFFCO Jagatsinghpur, Odissa, BSP Bhilai, Chhatisgarh, LPG Bolting Plant, Khurda, Bharat Petroleum Co. Ltd. at LPG Bottling Plant Fatuha (Patna), Bharat Petroleum Co. Ltd. Muzaffarpur (Bihar) and LPG Bottling Plant of Hindustan Petroleum Corporation Ltd (HPCL) at Gandhinagar (Gujarat). More than 5000 officials from different departments of district, Industrial staff, NGOs volunteers participated in various Mock Exercise.





Railways

To develop better co-ordination between NDRF & Railways, joint mock exercises were organized at Sabarmati Railway Yard(Gujarat), Vadodara Railway Station and at Metro Station, Shyambazar, Kolkata.





Earthquake

On 11th February, 2016, NDRF team participated in State level mock exercise on Earthquake Response in Dehradun Uttarakhand. Besides, exercises were conducted in four districts (Bageshwar, Chamoli, Pithoragarh and Uttarkashi) of Uttarakhand. More than 400 officials from different departments of State Govt. participated in the Mock Exercise.







TRAINING

ToT Course on "Management of Animals in Emergency"

Disasters weather natural or manmade cause's great loss to all sorts of life. Effective management of animals in emergencies, NDRF in association with (WAP) World Animal Protection and various universities is actively engaged to train its officials. A six days ToT (Trainer of Trainees) course on management of animal in emergency for NDRF officials was organized at Bihar Veterinary College, Patna from 11th to 16th March, 2016, under the aegis of World Animal Protection (WAP) and Bihar Veterinary College, Patna, Bihar. 36 officials from various NDRF units participated in programme.



Participants of Management of Animal During Emergencies at Bihar Veterinary College, Patna

SDRF/SSB TRAINING

During this quarter, 30 personnel of SDRF Rajasthan and 64 SSB personnel undergone disaster response training through lectures, demonstrations and practical session at RAC (Kota) Rajasthan and NDRF base Bhatinda Pubjab.



Disaster Management Training to Other Stakeholders

सामुदायिक क्षमता निर्माण जागरूकता/जन–जागरूकता अभियान

ओडिशाः–एनडीआरएफ द्वारा जनवरी माह में लोगो को मानवीय एवं प्राकृतिक आपदाओं जैसे कि बाढ, भूकम्प, सुनामी, चक्रवात, रासायनिक एवं जैविक आपदाओं के बारे में जानकारी देने के उददे्श्य से ओडिशा के भद्रक जनपद के विभिन्न स्थानों पर आपदा प्रबन्धन प्रशिक्षण कार्यक्रम के तहत प्रर्दशनों व व्याख्यानों का आयोजन किया गया। जिसमें कुल मिलाकर 3000 व्यक्तियों ने भाग लिया।





त्रिपुराः–इस तिमाही के दौरान एनडीआरएफ द्वारा त्रिपुरा राज्य के विभिन्न स्थानों में जन–जागरूकता कार्यक्रमों का आयोजन किया गया। जिसमे कुल मिलाकर 5000 व्यक्तियो ने भाग लिया।




छत्तीसगढ़ः–दिनांक 1 जनवरी–31 मार्च 2016 तक एनडीआरएफ द्वारा छत्तीसगढ़ के बैलोड़, बेमेषा, सूरजपूर स्थानों में बाढ़, भूकम्प, सुनामी सजगता और राट बनाने के तरीकों की जानकारी दी गयी। जिसमें लगभग 7000 व्यक्तियों ने भाग लिया और लाभांबित हुए।




सामुदायिक क्षमता निर्माण जागरूकता/जन–जागरूकता अभियान

केरलः–एनडीआरएफ द्वारा फरवरी माह में केरल के कासरगोडे में आपदा प्रबन्धन विषय पर जन–जागरूकता कार्यक्रम का आयोजन किया गया जिसमें 2000 लोगों ने भाग लिया।




तमिलनाडूः–एनडीआरएफ द्वारा फरवरी माह मे तमिलनाडू के बिल्लूपुरम जनपद में 1200 लोगों को आपदा प्रबन्धन का प्रशिक्षण दिया गया।




पुदूचेरीः–दिनांक 02–07 फरवरी 2016 तक पुदूचेरी में एनडीआरएफ द्वारा आपदा प्रबन्धन कार्यक्रम का आयोजन किया गया जिसमें 1000 लोगों ने भाग लिया।




सामुदायिक क्षमता निर्माण जागरूकता/जन–जागरूकता अभियान

हरियाणाः–दिनांक 09–15 मार्च 2016 तक जिला–झज्जर में विभिन्न स्थानों पर भूकम्प एवं बाढ पर जनजागरण अभियान के दौरान बरती जाने वाली सावधानियों तथा बचाव के उपायो पर व्याख्यान दिये गये तथा प्राथमिक उपचार, विक्टीम कैरिगं विधियों आदि पर प्रशिक्षण भी दिया गया। जिसमें कुल 1526 लोग लाभान्वित हुए।





राजस्थानः–दिनांक 29 जनवरी–12 फरवरी 2016 तक जिला–टोंक के विभिन्न स्कूलो, कालेजों और ग्रामीण इलाकों में आपदा प्रशिक्षण कार्यक्रम के तहत लोगों को आपदाओं से बचाव के तरीकों के बारे में जानकारी दी गयी जिसमें लगभग 10213 लोगों ने भाग लिया





जम्मू कश्मीरः– दिनांक 08–22 मार्च 2016 के दौरान एनडीआरएफ द्वारा किशतवाङ जनपद के विभिन्न स्थानों पर आपदा प्रबंधन कार्यक्रम के तहत स्थानीय लोगों छात्रों, अध्यापकों तथा मीडिया कर्मियों हेतु एक कार्यक्रम का आयोजन किया गया जिसमें कुल मिलाकर 2776 लोंगो ने भाग लिया।





झारखंडः— दिनांक 1—15 फरवरी 2016 तक एनडीआरएफ द्वारा बोकारो में लोगो को आपदा पूर्व तैयारियों और उनसे निपटने के तरीकों, जीवन रक्षक पद्वतियों के बारे में प्रर्दशनों के जरिये जानकारी दी गयी जिसमें लगभग 3000 स्थानींय लोगो ने भाग लिया।





बिहारः—विभिन्न प्रकार की आपदाओं के प्रति जागरूक करने के उददेश्य से एनडीआरएफ द्वारा बिहार के मुजफरपुर तथा गोपाल गंज जनपदों में लोगों को सर्पदश, भूंकम्प, अस्पताल पूर्व प्राथमिक उपचार के बारें में जानकारी दी गयी जिसमें लगभग 2500 लोगों ने भाग लिया




बंगालः—इस तिमाही के दौरान एनडीआरएफ द्वारा बंगाल के जलपाइगुडी जनपद के विभित्र स्थानों में 2500 लोगों को प्राथमिक उपचार, विभिन्न प्रकार की आपदाओं तथा उनके बचाव के तरीकों के बारें में जानकारी दी गयी ।






National Disaster Response Force

Working towards a disaster resilient Nation.....



'Horror' haunts shaken None

NDRF Trains Special Force in Emergency Preparedness

Kashi under armed forces umbrella for premiers' visit

How sanitation workers toiled for mission clean

NDRF team begins staff training at city hospitals

Programme Commences With Two Batches At SSPG Hosp

NATION

'NDRF getting trained to rescue livestock also'

Joint mock drill on earthquake held in Mizoram

2 LABOURERS KILLED AT AIIMS CONSTRUCTION SITE

'They had no chance to escape'

Kolkata flyover collapse kills 22

BRIDGE OF DEATH

'It was perhaps God's will that I should live'

A flawed project with seven years of glitches, design flaw

Two killed as earth caves in at AIIMS site

2 labourers die in cave-in at AIIMS site

CITY/STATE

NDRF packs more punch this year

The force added two battalions and also made giant strides to enhance its technical capabilities

NDRF trains 160 dogs for disaster response

श्री श्री रविशंकर के सांस्कृतिक समारोह में मुस्तैद एनडीआरएफ की टीम



एनडीआरएफ ने ढूंढ निकाला डूबा छात्रा का शव



गिजना बाढ़ व भूकंप के दौरा... हत और बचाव के दिए टिप



इंटरनेशनल रेस्क्यू ऑपरेशन की खूबियों के साथ तकनीकी होगी महारत

और तेज होगा एनडीआरएफ का मूवमेंट

मॉकड्रिल के लिए नोएडा पहुंची एनडीआरएफ की टीम



आपदा की स्थिति में घबराएं नहीं, समझदारी दिखाएं

लघु सचिवालय परिसर में जागरूकता शिविर लगाकर लोगों को दी जानकारी



भूकंप में लोगों को बचाने के बताए उपाय



एनडीआरएफ ने आपदा प्रबंधन को लेकर दिखाए हैरतअंगेज करतब

...ताकि सुनिश्चित हो आपकी सुरक्षा



NDRF ने दी आपदाओं से बचने की ट्रेनिंग



प्रशिक्षु आइएएस ने ली तकनीक की जानकारी





पशुओं का मानव से गहरा नाता, आपदा आए तो उन्हें भी बचाएं

आपदा में पशुओं को बचाने के लिए प्रशिक्षण शुरू





अमर उजाला

GAIL में हुई मॉकड्रिल

रानीतला मैदान में हुआ हवाई हमले से बचाव का प्रदर्शन





भूकंप आपदा से बचने की बताई नई तरकीब

एनडीआरएफ की मॉकड्रिल दहशत ने किया लोकेट



गांव दुजाना में आपदा से निपटने के गुर सिखाए

एनडीआरएफ की 45 सदस्यीय टीम गांव में पहुंची, विद्यार्थियों और ग्रामीणों ने लिया भाग







Published by: **PR Cell, NDRF**