



**REPORT OF THE THREE DAY NATIONAL  
LEVEL TRAINING OF TRAINERS (TOT)  
ON DISASTER MANAGEMENT**



submitted by

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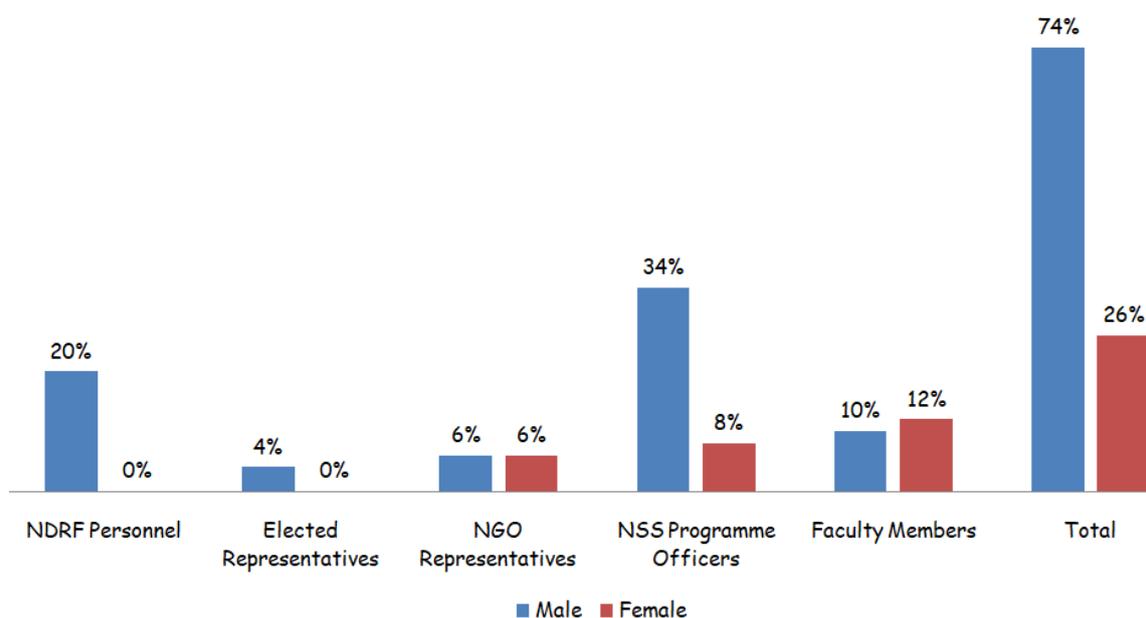
Arunachal Pradesh, India

**April, 2019**

## EXECUTIVE SUMMARY

A three day National Level Training of Trainers (TOT) on Disaster Management was organised at Rajiv Gandhi University, Arunachal Pradesh with the purpose of sensitizing the local representatives and other key stakeholders such as NSS Programme Officers, NGO Representatives, Faculty Members, NDRF personnel on key concerns related to disasters and equip them with capacities to strengthen vulnerabilities and build up a community based disaster management system. The Centre for Youth Development and Leadership Studies (CYDLS) of RGU in collaboration with the Rajiv Gandhi National Institute of Youth Development (RGNIYD), Tamil Nadu jointly organized the TOT from 25<sup>th</sup> to 27<sup>th</sup> March, 2019. Eminent resource persons from the field of disaster management and academics handled six technical sessions which were dealt with in the first two days of the TOT. The National Disaster Response Force of the 12<sup>th</sup> BN, Doimukh played a crucial role in showcasing an exhibition that displayed all the tools and equipments deployed for any disaster rescue operation. They further

**Chart 1: Participants Profile**



assisted in the practical demonstration of flood rescue that was organized on

the third and concluding day at Dhemaji, Assam. There were fifty participants from diverse backgrounds (Ref. Chart1).

There are many people who contributed a lot for organizing the programme successfully. I express my sincere gratitude to each and every one who made this programme a success. First of all, I would like to thank Hon'ble Vice-Chancellor of Rajiv Gandhi University for allowing us to organize this significant programme. I express my heartfelt gratefulness to the Commandant, 12<sup>th</sup> BN NDRF, Shri Umesh Kumar Thapliyal for his constant support. I take this privilege to express my cordial appreciation to all the Resource Persons for giving their valuable time and sharing their wisdom during the ToT. My special gratitude goes to Prof. Inderjeet Singh Sodhi and Rajiv Gandhi National Institute of Youth Development (RGNIYD), Govt. of India, Tamil Nadu for giving us the opportunity to organize this programme. I thank all the participants for actively participating in the programme. Last but not least I express thanks to my colleagues and students for their continuous and positive support. It was a well organized training with a lot of inputs provided and the sessions were very informative. The details of the technical sessions are provided in detail in this report.

**(Dr. Kaushalendra Pratap Singh)**

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## 1. THE UNIVERSITY

Rajiv Gandhi University (formerly Arunachal University) is the premier institution for higher education in the state of Arunachal Pradesh and has completed over twenty five years of its existence. Late Smt. Indira Gandhi, the then Prime Minister of India, laid the foundation stone of the university on 4<sup>th</sup> February 1984 at Rono Hills, where the present campus is located. Ever since its inception, the university has been trying to achieve excellence and fulfill the objectives as envisaged in the University Act. Rajiv Gandhi University (then Arunachal University) has carved a niche for itself in the educational scenario of the country following its selection as a University with potential for excellence by a high level expert committee of University Grants Commission from among universities in India. The University was converted into a Central University with effect from 9<sup>th</sup> April 2007 as per notification of Ministry of Human Resource Development, Government of India. The University is located atop Rono Hills on a picturesque tableland of 302 acres overlooking the river Dikrong. It is 25 km away from Itanagar, the State capital. The teaching and research programmes of the University are designed with a view to play a positive role in the socio-economic and cultural development of the State. The University offers Under Graduate, Post-Graduate, M. Phil and Ph.D. programmes. The University has been extending educational facilities to the students from the neighbouring states located across the region. The faculty members have been actively engaged in research activities with financial support from UGC and other funding agencies. Since inception, a number of proposals on research projects have been sanctioned by various funding agencies to the University. The Departments have organized many Seminars, Workshops and Conferences. Many faculty members have participated in national and international conferences and seminars held within the country and

abroad. Eminent scholars and distinguished personalities have visited the University and delivered lectures on various disciplines. VSAT facility installed by the ERNET India, New Delhi under UGC-Infonet program, provides internet access to the university. In spite of infrastructural constraints, the University has been maintaining its academic excellence. The University has strictly adhered to the academic calendar, conducted the examinations and declared the results in time. The students from the University have found placements not only in State and Central Government Services, but also in various institutions, industries and organizations. Many students come out successful in the National Eligibility Test (NET) each year. In all these years, the University has made significant progress in teaching, research, innovations in curriculum development and developing infrastructure.

## **2. ABOUT THE CENTRE FOR YOUTH DEVELOPMENT AND LEADERSHIP STUDIES (CYDLS)**

The Centre for Youth Development and Leadership Studies (CYDLS) has been established through the vide notification no. AC-108/2007 (Vol-II)/397 dated 11<sup>th</sup> July, 2017 at the Rajiv Gandhi University (A Central University), Rono Hills, Doimukh, Arunachal Pradesh with an aim to address the issues and challenges, building capacities, utilizing energy of youth in the North East Region of India especially in the state of Arunachal Pradesh. Since its inception, CYDLS is committed in working for the betterment of youth through various approaches vis-à-vis extension activities, skill and capacity development programmes, trainings, workshops, seminars, conferences, and instituting awards and scholarships to motivate the youth. The Vision of CYDLS is to groom youth as potential leaders in the process of sustainable development. The centre has a mission to develop a platform for progressive engagement and empowerment of

youth through professional training and guidance. In order to nourish leadership attributes among youth through innovation, research, and skills development, the specific objectives of CYDLS are to promote psycho-social well-being of youth; to instill leadership qualities and orientation towards social responsibility among youth; to involve youth in community development through national schemes and programmes; and to conduct training and research on youth development and leadership. In order to operationalize the vision and mission of CYDLS, three specific Cells have been established i.e. Counselling Resource Cell (CRC), Youth and Community Engagement Cell (YCEC), Training and Leadership Research Cell (TLRC). The CYDLS strives in pursuit of bringing positive changes in the society. Engaging youth in bringing the change and development through participatory approach is the key ingredient of CYDLS. With this vision, CYDLS has progressed steadily and different activities have been undertaken by the centre in a short span of time.

### **3. ABOUT THE RAJIV GANDHI NATIONAL INSTITUTE OF YOUTH DEVELOPMENT (RGNIYD)**

The Rajiv Gandhi National Institute of Youth Development is an Institution of National Importance by the Act of Parliament No. 35/2012 under the Ministry of Youth Affairs & Sports, Government of India. The RGNIYD functions as a vital resource centre with its multi-faceted functions of offering academic programmes at Post Graduate level encompassing various dimensions of youth development, engaging in seminal research in the vital areas of youth development and coordinating Training Programmes for state agencies and the officials of youth organisation, besides the Extension and Outreach initiatives across the country. The Institute functions as a think-tank of the Ministry and premier organization of youth-related activities in the country. As the apex

institute at the national level, it works in close cooperation with the NSS, NYKS and other youth organizations in the implementation of training programmes. The Institute is a nodal agency for training youth as a facilitator of youth development activities in rural, urban and tribal areas. The RGNIYD serves as a youth observatory and depositary in the country thereby embarking on youth surveillance on youth-related issues. It has a wide network with various organizations working for the welfare and development of young people and serves as a mentor. The vision of the institute is to develop into a globally recognized and acclaimed centre of excellence in the field of youth development, responding to the needs and inspirations of young people of the country and enable them attain their potentials.

#### **4. BACKGROUND OF TRAINING OF TRAINERS (TOT)**

A disaster is an extreme disruption of the functioning of a society that causes widespread human, material, or environmental losses that exceed the ability of the affected society to cope with its own resources. Disasters are sometimes classified according to whether they are "natural" disasters, or "human-made" disasters. For example, disasters caused by floods, droughts, tidal waves and earth tremors are generally considered "natural disasters." Disasters caused by chemical or industrial accidents, environmental pollution, transport accidents and political unrest are classified as "human-made" disasters since they are the direct result of human action. The Disaster Management Act, 2005 defines disaster as "a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the

community of the affected area". The United Nations defines disaster as "the occurrence of sudden or major misfortune which disrupts the basic fabric and normal functioning of the society or community". Disasters - natural or human-made are common throughout the world. Disasters continue to occur without warning and are perceived to be on an increase in their magnitude, complexity, frequency and economic impact. Hazards pose threats to people and assume serious proportions in the under developed countries with dense population. During the second half of the 20th century, more than 200 worst natural disasters occurred in different parts of the world and claimed lives of around 1.4 million people. Losses due to natural disasters are 20 times greater in the developing countries than in industrialized one. Asia tops the list of casualties due to natural disasters. India due to its geo-climatic and socio-economic condition is prone to various disasters. During the last thirty years' time span, the country has been hit by 431 major disasters resulting into enormous loss to life and property. According to the Prevention Web statistics, 143039 people were killed and about 150 crore were affected by various disasters in the country during these three decades. The disasters caused huge loss to property and other infrastructures costing more than US \$ 4800 crore.

The hazard vulnerability of the country finds a face when we look at the major disasters of the country from 1980-2010. During this period of 30 years, the country has been hit by approximately 25 major disasters apart from the heat wave, cold wave and heavy winds affecting some areas of the country. India is highly vulnerable to floods, droughts, cyclones, earthquakes, landslides, avalanches and forest fires. Out of 35 states and union territories in the country, 27 of them are disaster prone. Almost 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million

hectares (12 per cent of land) are prone to floods and river erosion; of the 7,516 km long coastline, close to 5,700 km is prone to cyclones and tsunamis; 68 per cent of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches. India is one of the ten worst disaster prone countries of the world. The country is prone to disasters due to number of factors; both natural and human induced, including adverse geo-climatic conditions, topographic features, environmental degradation, population growth, urbanization, industrialization, nonscientific development practices etc. The factors either in original or by accelerating the intensity and frequency of disasters are responsible for heavy toll of human lives and disrupting the life supporting system in the country. The basic reason for the high vulnerability of the country to natural disasters is its unique geographical and geological situations. As far as the vulnerability to disaster is concerned, the five distinctive regions of the country i.e. Himalayan region, the alluvial plains, the hilly part of the peninsula, and the coastal zone have their own specific problems. While on one hand the Himalayan region is prone to disasters like earthquakes and landslides, the plain is affected by floods almost every year. The desert part of the country is affected by droughts and famine while the coastal zone is susceptible to cyclones and storms. Vulnerability to disasters or emergencies of Chemical, Biological Radiological and Nuclear (CBRN) origin has increased on account of socio-economic development. Heightened vulnerabilities to disaster risks can be related to expanding population, urbanization and industrialization, development within high-risk zones, environmental degradation and climate change.

In the past few years, many glorious reforms of the North Eastern Region of India has been noticed. From the inauguration of the longest bridge of India,

the 'Dhola Sadiya Bridge', to the announcement of upgrading Guwahati airport to an International airport, North East has seen a tremendous change in its development regime. But with all these major developments, something has been making the 'Seven Sisters' tremble in fear every year. Each year, there are reports of some or the other natural disasters that wreck havoc in the North Eastern states. These disasters not just harm the infrastructural developments but do take a toll on the human lives as well. Assam Floods 2017 - a story that repeats every year, though this year with greater magnitude. It was believed that the flood that hit Assam this year was the worst in 29 years. Affecting more than 15 districts and 1.83 lakh people, the 3 rounds of floods from the Brahmaputra did create a stir in the people of Assam. Originating in Bangladesh, Cyclone Mora did create havoc in Aizawl, the capital of Mizoram. Strong winds and heavy rains lashed most part of Mizoram. Around 80 buildings were damaged in Aizawl and effects were seen in other parts of the state as well. The cyclonic storm casted its spell on other North Eastern states of Assam, Manipur, Meghalaya, and Tripura as well. Mid of the year, a massive landslide stroked the beautiful state of Arunachal Pradesh. The landslide was a result of flash floods and recurrent rains. Around 14 people were reported dead because of the landslide and 150 people were trapped for three days. Indeed, this was one of the most disastrous landslides in the North East. 2017 has been a year of earthquakes, and innumerable tremors were felt in the entire North East region in this particular year both of low and high magnitude. North East earthquakes have been a serious concern for a long time now, and many earthquakes in the past have taken a catastrophic form. 2017 turned out to be a fateful year for the Mizos also, when around 80 households and several people were swept away by the fury of flash floods. This was believed to be the worst floods faced by Mizoram in the last 50 years. Another bridge collapse was

witnessed in the North East region this year. The collapse of a suspension bridge in Lower Dibang Valley District injured around 21 students along with a school teacher. The tilting of the bridge on one side was believed to cause the calamity. There are numerous such instances across the region year after year which makes it a need of the hour to impart capacity building training to the people's representatives thereby contributing towards making India Disaster resilient clamoring for a sustainable development as envisaged in Sendai Framework and numerous other conventions in recent past.

## **5. OBJECTIVES OF THE TOT**

The central objective of the ToT is to sensitize the participants about key concerns and upcoming developments in the field of Disaster Management. The pro-active measures and recent Global Developments like Sendai Framework for Disaster Risk Reduction with special reference to Capacity Building towards Hazard Assessment and Vulnerability Reduction will also constitute the central focus of the three day training programme.

The specific objectives of ToT include the following:

- To sensitize the representatives about the emerging dimensions of Disaster in India with special reference to Northeast Region;
- To equip them with participatory tools in hazard assessment and strategies of vulnerability reduction;
- To develop a holistic understanding about early warning system and disaster management cycle including mitigation, response, and recovery processes;
- To build capacity in specialized knowledge and skills of rescue, relief, and rehabilitation services; and

- To promote indigenous knowledge on disaster risk reduction and build capacity for a community based disaster management approach.

## **6. INAUGURAL SESSION**

The three day National Level Training of Trainers (TOT) commenced with a formal inaugural session held in the Smart Theater Conference Hall, Department of Computer Science Engineering, Rajiv Gandhi University. The session started with the arrival of the participants and the dignitaries. The programme was graced by the presence of the Hon'ble Vice Chancellor of Rajiv



Gandhi University, Prof. Saket Kushwaha and the Guest of Honour, Shri. Umesh Kumar Thapliyal, the Commandant of 12<sup>th</sup> BN, NDRF, Doimukh. Dr. Kaushalendra Pratap Singh, the Chairperson of the Centre for Youth Development and Leadership Studies (CYDLS), RGU and the Chairperson of Rajiv Gandhi National Institute for Youth Development (RGNIYD), Prof. Inderjeet Singh Sodhi were the other dignitaries present on the dais. After the formal lighting of the lamp

by the dignitaries and the resource persons, the dignitaries were felicitated formally by presenting a memento, a traditional muffler and a jacket.

Dr. K.P. Singh welcomed the gathering comprising of the participants from diverse backgrounds, the resource persons and the dignitaries present. He also shared on the purpose for organizing the TOT, the rationale behind it, the scenario pertaining to disaster in India and the North Eastern Region (NER) and discussed the objectives set forth to be achieved during the training.





Chairperson of RGNIYD, Prof Inderjeet Singh Sodhi dwelt on the importance of organizing this training by incorporating theoretical and practical aspects related to disaster. He presented briefly about RGNIYD, its various programmes and collaborations. The pertinent aspect of addressing disasters came about with the implementation of the Disaster Management Act 2005 which led to the constitution of NDRF and the NIDM, apt mechanisms to address disasters in the country.

Commandant, 12<sup>th</sup> BN, NDRF, Shri. Umesh Kumar Thapliyal in his address, shared on the importance of interdepartmental coordination in organizing such training programmes. He shared on the crucial role of NDRF at times of any disaster which creates a negative impact on the people. The uniqueness of the training that brought together participants from various backgrounds and the



eminent resource persons who had the expertise in the field of disaster was highlighted.

Addressing the gathering, the Chief Guest, Prof. Saket Kushwaha - RGU Vice Chancellor stressed on the need to respect nature and protect the environment. He advised the trainers to stay updated with the latest information on disaster in order to play a constructive role towards mitigation. 'India is one of the ten worst disaster-prone countries in the world, and the Northeast region has witnessed many natural calamities in the recent past, thereby making it imperative to train people on disaster preparedness, response and management,' he said.



The inaugural session was chaired by Ms. Chapiak Lowang, Asst. Prof and member of CYDLS which finally concluded with a vote of thanks proposed by Mr. Gomar Basar, the Member Secretary of CYDLS. More than hundred people participated in the Inaugural Session. The technical sessions began after tea break.

## **7. DEMONSTRATION OF DM TOOLS**

The 12<sup>th</sup> BN NDRF, Doimukh showcased an exhibition of the different tools and equipments used in any rescue operation. They also demonstrated the purpose and ways of using some of the equipments. The exhibition was opened for the public on the first two days of the TOT. It was indeed very interesting to understand how the equipments are deployed during rescue.





## 8. FIRST SESSION

Dr A K Sinha, Training Coordinator, DM, Sashastra Seema Bal, RTC-Salonibari, Tezpur, Assam took session on the topic "Emerging Dimensions of Disaster in India with special reference to North Eastern Region (NER) of India". Dr. Sinha's session focused on the following aspects:

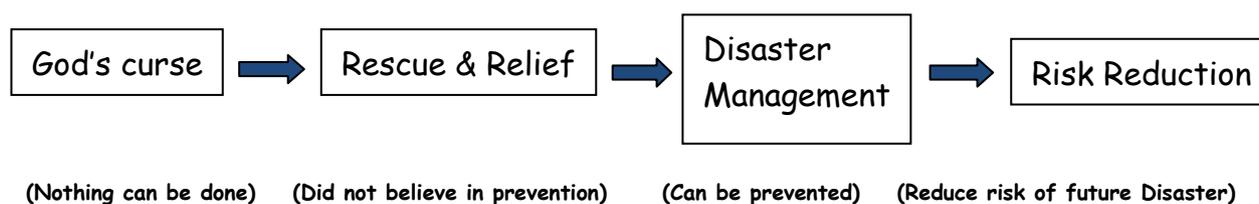
- General overview
- Disaster Management Paradigm
- Emerging Dimensions
- Challenges in NE Region
- Institutions of DM in India

He differentiated through semantics about conventional and modern understanding of disasters as how DIS (bad) + ASTER (star) was considered as predestined which was supported by religion, culture as the wrath of God. But now, the understanding has changed and the way people view disaster has also undergone significant changes. Disaster is understood as  $D = (H+V)*R/C$ . (H = Hazards' V = Vulnerability; R = Risk and C = Capabilities. The focus has shifted to building of capacities as institutions have no control of hazards, vulnerability of risks.

Dr. Sinha discussed the **Disaster Management Cycle** which presents the whole dimensions related to disaster. Earlier, the response was only when incident occurred by providing relief or rehabilitation. The focus now is on prevention and mitigation and building up capacities of communities to respond to any disastrous event, be it natural or manmade.



An interesting conceptual map of the **evolving concept** was presented which is as follows:



The shift in DM paradigm from response centric to hazard centric and vulnerability centric focusing on adaptation was firmly emphasized.

**Hazard vulnerability in India:** He further discussed about the geographical features of India being diverse thus opening itself upto disaster vulnerabilities and the different proportions of the country prone to different kinds of disasters were explained. NER being located in Zone 4 & 5 at the foothills of the Himalayas made it the most earthquake prone zone in the country, along

with possibilities of landslides in Arunachal Pradesh, Mizoram and Tripura, and lastly the annual flooding in many parts of Assam due to the Brahmaputra. The disaster trends such as hydro meteorological, geological and biological, the major disasters in India and its impact was also discussed. India being a developing country is grappling with geological and hydro meteorological disasters when the West is focusing only on biological disasters and devising ways and means of addressing it.

**National vision and strategy** is to build a safe and disaster resilient India by developing a holistic, proactive and multi-disaster and technology-driven strategy through a culture of prevention, mitigation, preparedness and efficient response. The multi dimensional strategies focusing on pre-disaster and post disaster phases such as prevention, mitigation, preparedness, capacity building of NDRF, SDRF, CO, NCC etc and community based disaster management and post disaster strategy such as prompt and efficient response - being proactive, reconstruction and recovery (building back better). The initiatives taken up in the country with the implementation of Disaster Management Act 2005, the National Policy 2009, the National Guidelines relating to different disasters, the National Plan of 2016, an exhaustive plan and the mock drills comprise of the mechanisms to address disasters.

When it came to Northeast scenario, he spoke on the challenges of the region, such as lack of developmental awareness, low health care systems, high vulnerability and minimum infrastructure. Opportunities were also present such as rich biodiversity, socio-cultural cohesiveness which is the strength that has to be harnessed and used constructively. He encouraged the participants to focus on minimizing and addressing the challenges and also build up on the

opportunities in order to be best prepared to face disasters in the region. It was an interesting and informative session that provided a broad overview of the concepts relating to disaster and the mechanism present to address it.

## 9. SECOND SESSION

Prof. Datta delivered his session on the topic "Disaster Management in Rural India: Role of the Panchayati Raj Institution". He gave an overview on disaster and then highlighted the important role that Panchayats can play as part of



disaster management. He shared that the goal of any disaster management initiative is to build a disaster resistant or resilient community equipped with safer living and sustainable livelihoods to serve its own development purposes and therefore, community level initiatives are essential so that they respond adequately to any disaster.

The stress on creating awareness through education and training, and the need to identify vulnerable communities so that they can be provided with the necessary relief was discussed. The local governments had the first-hand knowledge of community's social, economic, infrastructure, and environmental needs and therefore they can play a very crucial role during disaster situations. It is to be noted that the community is expected to be on its own for the first seventy two hours after a disaster until help reaches them. He shared two key concepts put forth by Drabet and Hoetmer which is comprehensive emergency management and integrated emergency management which speak of the role of the local government. A government acts comprehensively when it coordinates **four phases of emergency management which include mitigation, management, preparedness response and recovery.** A government acts in an **integrated manner** when it coordinates planning and strategy of hazard management, resource mobilization and operations with the other entities both laterally and vertically. He presented the history of local governance in the light of the Directive Principles of State Policy (DPSP) and the two Tier Panchayati Raj Systems.

The role of panchayats is important in view of their proximity to the local community, universal coverage and enlisting people's participation on an institutionalized basis and the possibility to ensure accountability and transparency through the institution of Gram Sabha. He explained how the role of panchayats is outlined in the National Policy on Disaster Management where they can play effective role in all the phases related to disaster - pre - disaster; during disaster and post - disaster. An important information he shared was that panchayats played a significant role in managing information such as collection, analysis and dissemination which would help in predicting

natural disasters and also help communities plan their activities. As part of conclusion he shared some research findings on the role of panchayats where they are considered as sources of early warnings on disaster and how authentic it is. Further, he also shared his experience of studying the role of panchayats in Jalpaiguri, West Bengal during flash floods in 1993. It was observed that the panchayats had played a very crucial role in reducing the impact of the floods by reaching out and providing prompt relief and rehabilitation services to the affected people. The networking and coordinated implementation of the relief work was commendable according to Dr. Datta who states strongly as per his study findings that the panchayats did not fail the local flood victims who would otherwise be entangled in poverty trap and this natural disaster did not result in social disaster. He concluded his session by reiterating on the need to develop 'community ownership.'

## **10. THIRD SESSION: PANEL DISCUSSION**

Third session of the first day was panel discussion. The chairman of the session was Prof. Prabhat Kumar Datta along with two panelists i.e. Dr. Saumya and Dr. A K Sinha.

**Speaker: Dr. Saumya**

### **Disaster Management Cycle: Mitigation, Response and Recovery**

The Chairperson introduced the speakers for the discussion and the session started with Dr. Saumya's presentation. To begin with, she provided an overview on disasters, types of disasters, the disaster management structure at the national, state and district levels. She further explained the different elements of risk such as hazard, vulnerability, risk, exposure and location. Mitigation of



disasters was explained as the primary goal of disaster management and assures prompt assistance is rendered to the victim to achieve rapid recovery.

The **Disaster Management Cycle** was discussed in detail, stressing on the **pre-disaster and post-disaster** activities. **Prevention, mitigation and preparedness** comprise activities to be focused in the pre-disaster situation. **Response and recovery** are part of post-disaster scenario. **Prevention** - activities that help avoid the occurrence of a disaster. **Mitigation** - activities that help minimize the impact of a disaster (structural and non-structural measures). **Preparedness** - activities and measures taken in advance to ensure effective response (mock drills, preparedness plan, early warning). **Response** - activities which are taken to provide immediate assistance to maintain life, improve health and support the morale of the affected community after a disaster has struck like search, rescue and provision of relief efforts. **Recovery**: basic aim of recovery

programmes is to bring affected region and community to normalcy. **Rehabilitation and reconstruction** are also part of recovery.

Dr. Saumya finally stressed on the need for being pro-active and work on areas to build urban resilience and other aspects of technology so that people are best prepared to face any disaster situation. She handled the session from a social worker's point of view and sensitized the participants on the importance of psycho-social interventions to be incorporated in any disaster management programme

**Speaker: Dr A K Sinha**

**Disaster and Community Issues: Disaster Risk Reduction**

The last session for the day began at 4:30 pm where Dr. Sinha shared briefly on the policies related to disaster management. He said that disaster cannot be confined to one state or country alone, but should spread across. Therefore it is a global concern and transcends geographical boundaries. Different International Protocols have come up like the Sendai Framework which brings the focus on risk reduction. He stressed on the need for policies to boil down right to the community at the local level and the importance of social support systems like the family that is of great help during disaster situations. Nuclear families become more vulnerable with adequately no support left. He cited the practice in West Bengal where they have a dedicated model in every district of social financing or micro financing programmes. Gender vulnerability was also touched upon and the richness in the indigenous communities to be cohesive and resilient contributing to the capacity to handle disasters was also discussed.

Both the sessions were interesting but due to the paucity of time, the chairperson had to bring them to a close. Thus, the first day of the TOT successfully came to an end.

## **11. FOURTH SESSION**

In day two Prof. Nandini C Singh delivered her lecture on "Institutional Mechanism and Policy Measures for Disaster Management in India". Prof Nandini said that the government is taking various initiatives to prevent disaster. In 2005, an Act known as the Disaster Management Act 2005 was passed in India which introduced many systems in place to deal with disaster. The main objective of this Act initiative was to mitigate and reduction of risk from any disaster. She also said that as a layman a person must know what is disaster management and how to overcome it, and the success of any programme or Act is that the people must be aware of it like what is the remedy and what to do if a disaster ought to happen and what does the Act cover.

She further explained about risk which is the possibility of something bad happening at some time in the future and divided risk into three parts:

- Risk Assessment
- Risk Transfer
- Risk Management

Prof Singh stressed that it is very important to know the risks and she gave the example of Karsinhgsa in Papum Pare District of Arunachal where there are always landslides during the monsoon season due to which there is road blockage in the area. She said that the landslides are natural phenomenon but she pinpoints out that it is mainly due to the improper planning system. She further added that the development that is happening is very good but the building

structures are not good as the area is prone to earthquake so the multi storage building are at risk. The example of Uttarakhand earthquake was shared where most of the people died was not because of earthquake but due to the collapse of building. She said while building any house, we must look into whether the house has any clearance and how much is the land holding capacity and how strong is the base that it can hold the building. So risk assessment is very much important as it is to think for the future. Then comes the risk management that



is how we manage it and risk transfer implies that if something happens to someone's life or property, then what will happen to the future safety is all about risk transfer.

Capacity building means to learn the skills to manage the knowledge and ideas about systems administration and many more. She shared about the example of Japan where kids are provided bags when they are born in which all the essential items are being kept which they would need when they grow up. She

said that in this way we can also teach the children in schools how to overcome risk. The importance of awareness and mitigation was emphasized so that people are prepared at all levels starting from community, state and national level. With the help of examples, she discussed certain safety tips that are taught to children right from school age.

Prevention is very important as no natural calamities can be stopped but prevention from the adverse affect is very much essential. She further spoke about sustainable development, because it is to know and make plans on how to overcome the hazards.

She said that the land of India is very diverse and presented some facts that 57% area is prone to earthquake, 68% to drought, 12% to flood, 8% to cyclone and some of the cities are prone to industrial disasters. So it is very much important that we have to focus on disaster management. She showed some photographs of the disaster that happened and showed that the northeast is very much prone zone of earthquake. Prof. Singh also said that before people used to think that the south zone is safe from earthquake but the whole India is divided in different seismic plates. She also said about the Gujarat earthquake which nobody thought would happen but yet it occurred in spite of the terrain it was located.

The various provisions of the Disaster Management Act was discussed wherein the specific roles and responsibilities of the state and national level disaster authorities was highlighted. In national level there are two institutions known as National Disaster Management Authority and National Executive Committee. In state level also there are two institutions known as State Disaster Management

Authority and State Executive committee. So now we must understand what is disaster management, it is the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response, recovery in order to lessen the impact of disaster. It is an applied science to know and understand the extent the disaster and to cope up with the hazard that has or is about to happen. Before the scenario was only the assessment and analysis but now it focuses on the aftermath that has happen and how can the amount of destruction can be lessen is the focus. She gave the example of Dhemaji how people used to migrate when flood comes so there is neither planning nor preparedness.

The principles of DM and the National Policy on DM were presented along with the structure of the DM Model. In Northeast, she stressed on the importance of using indigenous knowledge systems pertaining to that area and their practice. The aspect of living with risk brings about the need for community based disaster risk management techniques that should be child friendly and disabled friendly. She concluded stating that the focus should be on response, rescue and capacity building and initiate hazard specific mitigation projects.

## **12. FIFTH SESSION**

Dr. Saumya took this session on the topic "Early Warning System and Disaster Management". Firstly Dr. Saumya showed a video clip of a news showcasing the disaster happening. As her topic was based on early warning systems, she differentiated between forecast and warning. Forecast is predicting a future event such as rainfall, sunny, cloudy etc where as warning signifies a definite amount of risk to life and properties and therefore merit urgent attention. After that she explained different phases of early warning system.

Early and relevant risk information constitutes one of the key elements of any disaster risk reduction strategy. She said that the ultimate goal of hazard forecasting and early warning is to protect lives. There are various questions regarding early warning system because of the inadequate lead time available in case of some disaster which have severe consequences such as earthquake and landslides. To which she cited the example of Japan as how it took the advantage of the travel time difference of primary and secondary seismic wave. Later she said that there are four elements of effective early warning system and these are:

- Knowledge of risk faced.
- Monitoring and warning services.
- Communication and dissemination of warning message.
- Capability to act on early warning.

After that she spoke about the scientific and technological institution of India such as

- Indian Meteorological Department (IMD) is the nodal agency for providing cyclone warning services.
- Central Water Commission(CWC) has a mandate for providing flood forecasts and
- Indian National Centre for Ocean Information Services (INCOIS) is responsible for providing tsunami warning.
- Ministry of Agriculture provides forecast about drought in India,
- National Institute for Communicable Diseases, Ministry of Health and Family Welfare is the nodal agency for giving warning and advisories about epidemics.

These agencies employ variety of tools and instruments

- To detect corresponding hazards,
- Monitor such hazards from its detection level to track its growth,
- Use various scientific models to construct future scenarios
- And according if required, forewarn all concerned and issue advisories or warning.

She said that there are two kinds of warning system that is dissemination and communication, the first one is one way spreading of knowledge which is done through radio, television while communication is two way discussion which can be done through telephone etc. She said that the two way communication is generally desirable however many times dissemination mechanism such as radio serves an important function and is often the only communication choice available to reach out to a large number of vulnerable populations.

The factors that are taken into account while designing the early warning communications mechanisms are

- Lead time,
- Coverage,
- Topography of the area,
- Access to warning devices,
- Cost,
- Maintenance
- Reliability.

As a rule, multiple redundancies are always recommended so that failures of a selected communication channel do not jeopardise the entire early warning system and thereby put the vulnerable people at life risk. She gave the example



of the devastation caused by the cyclone Nargis in Myanmar in 2008 was not due to a technical failure in the early warning service, warnings were provided by the Myanmar metrological service but due to a failure in the other elements of the EWS, especially communication and preparedness to act.

She also said that unless the last vulnerable person is informed during a warning period in a timely manner there will continue to be the loss of life and the objective of the early warning system is not fulfilled. She also mentioned about the warning sign that the locals used to use such as sirens, drums, signs, lights, loud speaker mounted on a vehicles, bells etc. which have been effective at the time of emergencies.

During these period, the response capabilities also plays an important role such as the capacity to act, capacity to interpret, and means to take protective

actions as recommended. She said that a range of response capacity can be made such as construction of safe drinking water, shelter, road communication, sanitation, food, medicines, and security. Capacity building at the community level need to be planned to ensure systematic preparedness programs, disaster management plans is in place and have been tested, community members have been adequately trained to know how to act after receiving early warning.

The early warning system must be integrated and link all actors in the early warning chain including the scientific and technical community, public authority and local communities. In the integrated system the risk scenario are constructed and reviewed, specific responsibilities throughout the chain are agreed and implemented, past events are studied and improvements made to early warning system, manual and procedure are agreed and published. Effective early warning system must be part of the national institution and legislature framework for disaster management. Early warning must be complemented by professional's services, training, and capacity building activities and allocation of resources to enable timely actions to be taken to avert loss. This session provided all the essential information related to early warnings that are issued at times of disaster and how it is operated, the challenges and limitations and it was very informative

### **13. SIXTH SESSION - PANEL SESSION**

This session was chaired by Prof. Tomo Riba, Registrar, Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.

**Speaker: Shri Umesh Kumar Thapliyal, Commandant, 12 BN NDRF**

**Topic: Mock Drill and Capacity Building in Disaster Response; Rescue, Relief, and Rehabilitation Services**

The session started with the introduction of the panel members and the chairman led the session by handing over to the first speaker Shri Umesh Kumar Thapliyal. Mr Thapliyal firstly introduced himself and addressed the audience such as welcoming the scholars, the resource persons, the members of NDRF and all the students that were present. So as his topic was on mock drill, he being the Commandant of NDRF told the audience about the background of NDRF. He said that the full form of NDRF is National Defence Response Force. He said that the whole nation is divided into 12 battalions and he is in the 12<sup>th</sup> battalion. He even said that in a battalion there are 1000 members. And in northeast there are two battalions deployed and under him there are 3 and half states that is Arunachal Pradesh, Upper Assam, Manipur and Nagaland. And it is a team consisting of 30-40 members in a station. NDRF is a national agency that works in the national level to mitigate the disaster. It works for the rescue and relief of the people in times of hazards. He even said that their work is similar to that of National Security Guard.



He said that during this time also his 6 teams are deployed into various settings in ready position. Suppose if something happens at the moment, and it has been agreed by him then his team would reach there within 15 minutes of time consisting of 40 people and four vehicles with tools would move out to that spot. The team is also equipped with ration for ten days and all the tools they need for the operations. He even said that even if anyone visits the place, then they would find the 40 people are in ready position with their uniforms on them and vehicle also ready. He said that as being in alert position, there is one team out of four teams known as alert team. He even said that in every 15 days the ration that is being put in the vehicle is always being changed. They look and keep their equipments ready according to the season say that during monsoon there is more change of flood and landslides so they keep those tools in major number which are needed.

In state level also there is a group of force know as SDRF. State Defence Reponse Force. In every state, there is SDRF or if not it is in process of being established. There is also SDRF in Arunachal Pradesh but there is difference between the tools and equipment available between NDRF & SDRF. He said that maximum of instrument are there with NDRF than SDRF. He that they have advance equipments which are being sometimes borrowed by the other agencies, here he cited the example of how once the engineer who were making dams asked for their magnetic equipment as they have lost their instrument under water as the depth was so much they sought the help of NDRF equipment. As the metal that was fallen under water was heavy they could not pull it off so they thought of again making the equipment improved through the drawback that they have known from it. So he said that every time they carry an operation they analyse how it was carried out and try to think for more effective ways so that next time the operation can be more successful with less number of loss of lives. He said that they always monitor the areas so 24x7 there is local news channel always going on and the lines of phone connection and electricity are always there, so that no information is missed out by them. He could only provide an overview of NDRF and its function and could not proceed with his topic due to paucity of time.

**Speaker: Shri Vimersh Yadav, Airport Authority of India, Gauhati Airport**

**Topic: The Role of Airport in Disaster Response**

Firstly he said that the airport facilities and infrastructure must be built in a well planned manner so that no hazard could disturb the operation of its function. He spoke about the aviation critical infrastructure that is the Airport, Airlines, Air cargo, military aviation, air traffic control system, security system, skilled personnel. After that he explained about the difference between the

runway and taxiway by means of pictures that the runways are where the aircrafts run where as the taxi way is the narrow path that is smaller compared to that of runway and has less friction as it cannot be used for runway. After that he said that why must we focus on the airports as there are NDRF and many road ways facilities that are available to us? He said that airports are necessary because it acts as a receiving and sending aid in times of disaster and catastrophic events. The airports are fixed assets - they are valuable, expensive to replace and hard to repair if damaged. He further added that planes and people can be moved but airports can't be moved.



He said that during the disaster there is more flight operation than the normal and there is change of degradation of airport facilities to which he gave the example of how the toilets would become dirty as the number of people using the toilets would increase and the worker's work would increase which would

stress the workload on the workers. During this time, there are changes of closing down of airports. During these hours, there will be delay in arrival and departure of aircraft due to more runway occupancy time, there would be need for more parking bay and increase in airport activities. After that he spoke about the roles of airport in disaster that is receiving aid, dispatching aid, quarantine (initial), helicopter base rescue, logistic hub, communication, backup EOC, security area. He even said about the inappropriate role of airport that is the airport must not act as a command and control center, mobile hospitals, reunification, temporary morgues, logistic storage. So he said that airport must be protected from inappropriate uses, after that he showed a photo clip of the northeast and how many airports does it have that is operational and non operational. Arunachal Pradesh has a total of five non operational and one operational airport would be established soon in Hollongi.

He later on said that during disaster, it involves airport internally and airport in a community context, and also there must be coordination and cooperation among airports is needed. Lastly he said that in no circumstances the normal activities of the airport must be disturbed. It was a very interesting session as it provided a totally new dimension related to disaster and the session was also well appreciated by the participants.



The chairman of the session concluded the panel discussion by sharing that he was very interested to listen to both the speakers in detail, but due to the time constraints, the session had to end. He also shared his story that how his village was caught up in fire twice and during this time how they lost their assets that belonged to their forefather and how now they are keeping watch on their village, by putting a male member to keep a watch on whole village and he also shared about his various visits to different places aftermath of the natural calamities. He added to that by saying that most of the lives are lost due to the carelessness of the people such as more people died due to the collapse of building during earthquake rather than the earthquake itself.

#### **14. VALEDICTORY SESSION**

The three day National Level Training of Trainers (TOT) concluded with a valedictory session held on the 26<sup>th</sup> of March, 2019 at 2.30 pm at the SMART Theater, CSE Department, RGU. Prof H S. Yadav, Director of NERIST was the Chief Guest along with the Guest of Honour, Prof. S K. Singh, Dean, Social Sciences RGU graced the occasion. After the formal felicitation, Dr. Kaushalendra delivered the welcome address. Two of the participants provided



feedback on the TOT wherein they appreciated the manner in which it was organized and the different sessions that were handled. The need to include indigenous knowledge and practices of the tribal communities in designing and planning disaster preparedness training was expressed by Dr. Kento Kado, Assistant Professor from Pasihat JNC College. He also requested for such kind of trainings to be an Annual Event and to include women, NCC, NSS cadres and

also to include Disaster Management as part of B Ed courses so that the awareness can reach out to many students.

Prof. Yadav considered it a privilege to be part of this exposure on DM. in his address, he stressed on the need for disaster preparedness and the difference between nuclear fusion and nuclear fission, where it has to all be part of the controlled process and only when it goes to the realm of uncontrolled process,



disasters occur. He also said that management cannot be the key to control disaster as there is no lock and key model. He spoke about nature being the best example of equilibrium and how it had the potential to reverse the direction and undo any changes that happen. As challenges still persist in this area, it is important for science, engineering, and social science fields to work together with the community and understand what they need. The need to incorporate

women and the young in the panels was a recommendation put forth by Prof Yadav.

The Dean of Social Sciences, Prof S K Singh highlighted the importance of equipping oneself and being better prepared to face any eventuality. The electronic hazard is an area that needs to be handled appropriately according to him in the era of technological advancements.



The NDRF Commandant, Shri Umesh Kumar Thapliyal in his address focused on the integration of theoretical and practical components, and presented an overview on the roles and responsibilities of NDRF. Certificate of participation was awarded to all the participants of the TOT.





## **15. FIELD VISIT TO DHEMAJI**

The final day of TOT was focused on a practical exposure to the field and participants were taken to NDRF units and the field locality at Dhemaji, Assam. The NDRF members demonstrated rescue operations in flood situation in a very realistic manner. Initially, they oriented the participants to use the locally available tools for rescue and only in situations beyond their control, NDRF tools can be deployed. It was a great day of learning that was well appreciated by the participants.



# Annexure

## Annexure 1: Media Coverage

The Arunachal Times, Tuesday, March 26, 2019

LOCAL / National

3

# ToT on disaster mgmt underway

**RONO HILLS, Mar 25:** A three-day national level training of trainers (ToT) on disaster management got underway at Rajiv Gandhi University (RGU) here on Monday.



The objective of the training is to sensitize local representatives and other stakeholders on key concerns related to disasters, and to equip them with the capacity to build a community-based disaster management system.

The programme is being organised by RGU's Centre for Youth Development and Leadership Studies (CYDLS), in collaboration with Tamil Nadu-based Rajiv Gandhi National Institute of Youth Development (RGNIYD).

Addressing the gathering, RGU Vice Chancellor Prof Saket Kushwaha stressed on the need to respect nature and protect the

environment. He advised the trainers to stay updated with the latest information on disaster to play a constructive role.

"India is one of the 10 worst disaster-prone countries in the world, and the Northeast region has witnessed many natural calamities in the recent past, thereby making it imperative to train people on disaster preparedness, response and management," he said.

NDRF 12 Bn Commandant Umesh Kumar Thapliyal spoke on the importance of interdepartmental coordination in organising ToT programmes.

CYDLS Chairperson Dr KP Singh and RGNIYD Chairperson Dr Indrajeet Singh Sodhi dwelt on the value of organizing training programmes incorporating theoretical and practical aspects related to disaster.

The first day's sessions

were coordinated by Prof Prabhat Kumar Dutta (Institute of Development Studies, Kolkata), Dr AK Sinha (Sashastra Seema Bal, Tezpur), and Dr Saumya from IGNOU, New Delhi.

The thrust of the sessions were on the emerging dimensions of disasters in the Northeast, the role of panchayati raj institutions, and the need to mitigate and respond to disasters.

A panel discussion was

held to deliberate on the impact of disasters in the region, and an exhibition on various tools deployed in rescue operations was organised.

About 50 participants, besides faculty members from various colleges and private universities, NGO representatives, NSS programme officers, and members of local governance are participating in the programme.

## ToT on 'disaster management' comes to an end



**ITANAGAR, Mar 26:** A national level Training of Trainers (ToT) concluded today at the Rajiv Gandhi University complex.

Gracing the valedictory programme, Prof H S Yadav, Director NERIST stressed on the difference between nuclear fission and nuclear fusion wherein disasters go beyond the realm or control of management mechanisms and emphasized on the need for disaster preparedness.

The ToT that commenced yesterday was jointly organized by the Centre for Youth Development and

Leadership Studies (CYDLS) and the Rajiv Gandhi National Institute of Youth Development (RGNIYD), Tamil Nadu and brought together different stakeholders from different regions to capacitate them with knowledge and skills to be better prepared in handling and responding to disasters.

The Dean of Social Sciences, Prof S K Singh highlighted the importance of equipping oneself and be better prepared for any eventualities in this era of technological advancements.

The Commandant of 12 Bn

NDRF, Umesh Kumar Thapliyal focused on the integration of theoretical and practical components and provided a broad overview on the roles and responsibilities of NDRF and how they respond to disasters in the country.

The technical sessions of the day focused on institutional mechanisms and policy measures to deal with disasters, warning systems, role of airports in responding to disasters and the four R's related to disasters - Response, Rescue, Relief and Rehabilitation services.

Experts in the field like Prof

Nandini Singh, Dean of Environmental Science, RGL, Dr Saumya, IGNOU, New Delhi, and Vimersh Yadav, Airport Authority of India, Guwahati attended the programme.

The Registrar of RGU, Prof Tomo Riba, who chaired the panel discussion, shared his personal experience related to disasters in the region.

The need to include the rich indigenous knowledge and practices of tribal communities in Arunachal Pradesh in designing and planning of any disaster preparedness training was ex-

pressed by the participants.

The ToT shall formally conclude tomorrow with a field visit to NDRF, Doimukh and Dhemaji where practical demonstration on Disaster Management and Rescue Operations shall be organized with the help of the NDRF.

On the whole, comprehensive components dealing with both theoretical and practical aspects of disaster were offered to the participants to mould them into 'equipped' disaster management professionals to deal effectively in any disaster situation.

The Arunachal Times, Wednesday, March 27, 2019

LOCAL / National

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## ToT on disaster mgmt concludes

RONO HILLS, Mar 26:

The three-day national level training of trainers (ToT) on disaster management concluded at Rajiv Gandhi University (RGU) here on Tuesday.

Addressing the valedictory function, NERIST Director Prof HS Yadav emphasized the need for disaster preparedness, and stressed on "the difference between nuclear fission and nuclear fusion, wherein disasters go beyond the realm or control of management mechanisms."

RGU Social Sciences Dean Prof SK Singh highlighted the importance of equipping oneself and being better prepared for any eventuality.



NDRF 12 Bn Commandant Umesh Kumar Thapliyal focused on the integration of theoretical and practical components, and presented an overview of the roles and responsibilities of the NDRF.

The technical sessions focused on institutional mechanisms and policy

measures to deal with disasters, warning systems, role of airports in responding to disasters, and the four 'R's related to disasters - response, rescue, relief and rehabilitation.

RGU Environmental Science Dean Prof Nandini Singh, Dr Saumya from IGNOU, New Delhi, and

Vimersh Yadav from the Guwahati branch of the Airports Authority of India were the resource persons.

RGU Registrar Prof Tomo Riba chaired the panel discussion, and shared his personal experience related to disasters in the region.

The need to include indigenous knowledge and practices of the tribal communities in Arunachal Pradesh in designing and planning disaster preparedness training was expressed by the participants.

The ToT was jointly organized by the Centre for Youth Development and Leadership Studies, and the Rajiv Gandhi National Institute of Youth Development, Tamil Nadu.

The programme will formally conclude on Wednesday with a field visit to the NDRF units in Doimukh and Dhemaji, where practical demonstration on disaster management and rescue operations will be presented.

Wednesday 27 March 2019

ARUNACHAL FRONT  
ARUNACHAL | NORTHEAST | NATION

3

## National level ToT at RGU on disaster management concludes

RONO HILLS, Mar 26:

The three-day national level Training of Trainer's (ToT) concluded today at Rajiv Gandhi University. The valedictory programme was graced by Prof. H. S. Yadav, Director, NERIST. He stressed on the difference between nuclear fission and nuclear fusion wherein disasters go beyond the realm or control of management mechanisms and emphasized on the need for disaster preparedness.

The ToT that commenced yesterday was jointly organized by the Centre for Youth Development and Leadership Studies (CYDLS) and the Rajiv Gandhi National Institute of Youth Development (RGNIYD), Tamil Nadu and brought together different stakeholders from different regions to capacitate them with knowledge and skills to be better prepared in handling and responding to



disasters.

The Dean of Social Sciences, Prof S.K. Singh highlighted on the importance of equipping oneself and be better prepared for any eventuality in this era of technological advancements. The Commandant of 12 BN, National Disaster Response Force (NDRF), Umesh Kumar Thapliyal focused on the integration of theoretical and practical components and provided a broad overview on the roles and responsibilities of NDRF and how they respond to disasters in

the country.

The technical sessions of the day focused on institutional mechanisms and policy measures to deal with disasters, warning systems, role of airports in responding to disasters and the four R's related to disasters – Response, Rescue, Relief and Rehabilitation services.

Experts in the field like Prof. Nandini Singh, Dean of Environmental Science, RGU, Dr. Saumya, IGNOU, New Delhi, and Vimersh Yadav, Airport Authority of

India, Guwahati. The Registrar of RGU, Prof Tomo Riba chaired the panel discussion for the day and shared from his personal experience related to disasters in the region. The need to include the rich indigenous knowledge and practices of the tribal communities in Arunachal Pradesh in designing and planning of any disaster preparedness training was expressed by the participants.

The ToT will formally conclude tomorrow with a field visit to NDRF,

Doimukh and Dhemaji where practical demonstrations on Disaster Management and Rescue Operations will be organized with the help of the NDRF. On the whole, comprehensive components dealing with both theoretical and practical aspects of disaster was offered to the participants that shall mould them into equipped disaster management professionals to deal effectively in any disaster situation.

Indian

## **Annexure 2: Resource Person**



**Prof. Tomo Riba**

**Registrar, RGU, Rono Hills, Doimukh, Arunachal Pradesh.**

Email Id: [tomo.riba@rgu.ac.in](mailto:tomo.riba@rgu.ac.in)

Prof. Tomo Riba is a professor in the Department of Geography at Rajiv Gandhi University. He currently holds the position of Registrar In-charge, Rajiv Gandhi University. He has vast experience as an academician. He has published many international and national publications and presented papers as well. He has visited various countries. He has worked as UN consultant to prevent Drug Abuse.



**Prof. Prabhat Kumar Datta**

**Institute of Development Studies,**

**Kolkata, West Bengal.**

Email Id: [dattaprabhat@gmail.com](mailto:dattaprabhat@gmail.com)

Professor Prabhat Kumar Datta held the Centenary Chair of Public Administration in the Department of Political Science, University of Calcutta for more than two decades. Currently, he is the Adjunct Professor, Institute of China Rural Studies, Central China Normal University, Wuhan, People's Republic of China. He is also currently the Honorary Professor, Institute of Development Studies, Kolkata (promoted by the Government of West Bengal as the Centre of Excellence in Social Sciences). He was awarded the prestigious Surendranath Banerjee Gold Medal by the University of Calcutta for standing first in MA Examination in Political Science. He was DAAD Professorial Fellow (awarded by the Government of the Federal Republic of Germany) at the University of Heidelberg, Germany in 2008. He worked as a member of the

University Grants Commission's Panel in Political Science and Public Administration and as a member of the Executive Committee of the Indian Political Science and Indian Public Administration Associations. He worked in Moulana Abul Kalam Azad Institute as a nominee of the Government of India. He was elected to the Board of Directors of the Asian Association of Public Administration (2014–2017). He is member of the Editorial Board of the journal, Asian Journal of Rural Studies published by Asian Rural Sociological Association in association with Hasinuddin University, Indonesia. A widely traveled scholar, Professor Datta worked for nearly two decades as the Honorary Advisor, State Institute of Panchayats and Rural Development and Institute of Local Government and Urban Studies, Government of West Bengal. He was also the chairperson of the State Level Technical Advisory Committee, Jawaharlal Nehru Urban Renewal Mission under the Departments of Municipal Affairs and Urban Development, Government of West Bengal. He has authored and co-authored 28 books. His articles have been published in the distinguished national and international journals. His papers have been translated into Chinese and published in the Third Sector Research, Jiatong University, Shanghai. He has contributed to the news magazines like Frontline, Mainstream and in weeklies like Economic and Political Weekly. His articles have also been published in English dailies like The Telegraph and dailies in Bengali like Ananda Bazar Patrika, Bartaman, Sambad Pratidin published from Kolkata. He has presented papers in many national and international conferences as invited speakers. He has worked with scholars from International Universities. He has delivered invited lectures in many Asian, European and Australian universities. His special academic interests include local governance, gender and politics in India.



**Shri Umesh Kumar Thapliyal**

**Commandant, 12 BN NDRF, Doimukh, Arunachal Pradesh.**

Shri Umesh Kumar Thapliyal is currently a Commandant of the 12 BN NDRF at Doimukh Arunachal Pradesh. Shri Thapliyal is originally a Sashastra Seema Bal (SSB) Cadre Officer who is presently on deputation with NDRF. He did his Graduation from Delhi University and Masters in Economics from Jamia Milia Islamia, New Delhi. He also completed two PG diploma courses in Mass Media and Creative Writing from Jamia Milia Islamia, New Delhi and Criminology & Police Administration from Dr. Hari Singh Gour Vishwavidyalaya, Sagar, MP. In the field of Disaster Management, Shri Thapliyal has undergone "Critical Incident Management Course organized by US Department of State at New Delhi under Anti-Terrorist Assistant Programme during 2012. Presently as Commandant of NDRF BN, he is responsible for Disaster Management in four major states of Northeast i.e. Arunachal Pradesh, Nagaland, Manipur, and Assam (Upper Assam). As creative writer, Mr. Thapliyal is regularly contributing articles in various departmental magazines under Ministry of Home Affairs (MHA). His Articles on professional issues have been published by Bureau of Police Research and Development (BPR & D). Mr. Thapliyal is one of the most experienced Officers from SSB and NDRF who is having practical experience of working in Northeast Region of India.



**Prof. Nandini C Singh**

**Dean, Faculty of Environmental Science,**

**Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.**

Prof. Nandini C Singh is a Professor in the Department of Geography at Rajiv Gandhi University. She currently holds the position of Dean, Faculty of

Environmental Sciences. She is a meritorious scholar and rank holder at graduation level and gold medalist at Master Degree. Prof. Nandini achieved outstanding performances at the M.Phil. and Ph.D. level. Prof. Nandini has contributed to the area of research in urban and social and cultural Geography through a number of publications in National and International journals and books. She was a Project Fellow of Indian institute of Advanced Study, Shimla for a period of three years and is also UGC Research Awardee. She was granted and has completed major UGC Projects. Prof. Nandini specialises in Social and Cultural Geography, with a research interest in Gender Geography. With a vast teaching experience of over 27 years, Prof Nandini has guided a number of Ph.D. and M.Phil. Scholars. Currently 8 Ph.D. scholars are registered under her supervision. She has been member of number of committees in the University Administration including EC, AC and is also the current court member of the University. An avid traveler, she has visited many countries of the world as invitee and participant to international and national conferences, seminars and workshops.



**Dr. Saumya**

**School of Social Work, Indira Gandhi National Open  
University,**

**Maidan Garhi, New Delhi.**

Email Id: saumya@ignou.ac.in, saumyapandey@yahoo.co.in

Dr. Saumya is a faculty at School of Social Work, Indira Gandhi National Open University (IGNOU), New Delhi, India. She did her Bachelors in Sociology from Miranda House and Masters in Social Work at Department of Social Work, University of Delhi (was awarded University Gold Medal) followed by a year of policy research at Action Aid, Chhattisgarh, India in the area of 'Right to Food'.

She holds a Ph.D degree in Social Work from University of Delhi, and was recipient of Junior & Senior Research Fellowship from UGC between 2003 and 2006. Prior to joining IGNOU, she taught at University of Delhi as Lecturer in Department of Social Work. She has 11 years of teaching and research experience. She has received Visiting Fellowship to Shanghai Open University, China in 2014 and Commonwealth Fellowship in 2018. She has won 2018 Young Innovator Award for her paper at 32<sup>nd</sup> Annual Conference of The Asian Association of Open Universities (AAOU). She has published books and many articles and presented several papers in national and international seminars. Her areas of research include Open and Distance Learning, Tribal Issues, Adolescent and Reproductive Health and Community Organization.



**Dr. A K Sinha**

**DM-Training Coordinator, Sashastra Seema Bal, RTC-  
Salonibari, Tezpur, Assam.**

Email Id: aks.ndma@gmail.com

Dr. A K Sinha, Astit. Commandant (Vety) is a Veterinary Science Post Graduate from Jabalpur Veterinary College, working with Sashastra Seema Bal (SSB). During his nineteen yrs long service, Dr. Sinha has served in remote and far flung border areas of Himachal Pradesh, Bihar, Uttar Pradesh and Assam. Dr. Sinha also specializes in Disaster Management and has served in National Disaster Management Authority (NDMA) between 2010-15. As Senior Research Officer, his duties involved Policy Planning, Research, Project Programming, Implementation and Interagency Coordination. As a NDMA's Core Group Member on Disaster Management, he has contributed in drafting of National Plan of Disaster Management (NPDM), National Plan for Protection of Animals & Livestock, National Guidelines on Biological Disaster Management, National

Guidelines on Minimum Standard of Relief, Pandemic Preparedness beyond Health, Management of Dead in the Aftermath of Disaster, and National Plan for Protection of Water Bodies from Nuclear Contamination. Dr. Sinha also specializes in Weapon of Mass Destruction (WMD). As technical expert on Bioterrorism, Dr. Sinha has represented India to the United Nation's Biological Toxin and Weapon Convention 2008 & 2011, World Bio-defense Congress Kualalampur 2011, ASEAN Regional Forum on Bio-security in 2012, MDG Meeting of State Parties, United Nation HQ NewYork 2014. Presently posted at SSB's proposed Disaster Management Training School (DMTS) at Salonibari Tezpur (Assam), Dr. Sinha is coordinating training and capacity building programs of SSB for disaster management.



**Shri Vimersh Yadav**

**Manager (CNS), Guwahati Airport, Airport Authority of India,  
Guwahati, Assam.**

Mr. Vimarsh Yadav is working in Airports Authority of India in the capacity of Manager (ATSEP). He is a B.Tech graduate from Delhi College of Engineering in Electronics & Communication stream. In his 21 years of service he has worked at various airports including corporate office at Delhi. He is responsible for provision and maintenance of Communication Navigation and Surveillance facilities for safe, efficient and regular aircraft operations over Indian airspace. He is a member of Airport Disaster Management Committee for the last 3 years which is responsible for post disaster management at the airport. He is also actively involved in GARD (Get Airport Ready for Disaster) programme responsible to handle surge of air operations, passengers and cargo in the aftermath of a disaster.

**Annexure 3: List of Participants**

<b>NDRF 12 Bn, Doimukh, Arunachal Pradesh (10)</b>	
1	Mr. Vivek Kumar
2	Mr. Kunwar Pal Singh
3	Mr. Marbom Riba
4	Mr. S Rambabu
5	Mr. Augustus Lakra
6	Mr. Vinay
7	Mr. Deepu Kumar Das
8	Mr. Sushil Kumar
9	Mr. Bikash Ch. Barman
10	Mr. Bikash Gupta
<b>Elected Representative from UP (2)</b>	
11	Mr. Ashok Kumar Maurya
12	Mr. Sanjay Kumar Maurya
<b>Oju Welfare Association (2)</b>	
13	Ms. Yiken Dabi
14	Mr. J Tangjang
<b>IGSSS (2)</b>	
15	Mr. Gollo Joseph
16	Ms. Yano Tayor
<b>NEIDA (2)</b>	
17	Mr. Tanop Tatin
18	Ms. Kesang Yeshi
<b>NSS PO from JNC, Pasighat, Arunachal Pradesh (1)</b>	

19	Dr. Kento Kadu
NSS PO from Govt. College Yachuli, Arunachal Pradesh (1)	
20	Mr. Nabam Tabang
NSS PO from Govt. Model College Roing, Arunachal Pradesh (1)	
21	Mr. Iken Rumdo
NSS PO from Govt. College Kamki, Arunachal Pradesh (1)	
22	Mr. Teli Momu
NSS PO from Vivekananda Kendra College of Teachers Education, Nirjuli, Arunachal Pradesh (2)	
23	Mr. Sumit Kumar Baral
24	Mr. Gouranga Biswas
NSS PO from Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh (3)	
25	Mr. Bhaskar Jyoti Chutia
26	Dr. Vivek Singh
27	Mr. Gomar Basar
NSS PO from NERIST, Arunachal Pradesh (3)	
28	Dr. Kunal Borah
29	Dr. Dibyendu Pal
30	Md. S. Mujaheed Khan
NSS PO from Bini Yanga Govt. Women College, Lekhi, Naharlagun, Arunachal Pradesh (1)	
31	Mr. Raja Ram Riram
NSS PO from Government College Doimukh, Doimukh, Arunachal Pradesh (1)	
32	Mr. Dagbom Chisi
NSS PO from Hills College of Teacher Education, Lekhi, Naharlagun, Arunachal Pradesh (1)	

<b>Pradesh (2)</b>	
33	Dr. (Ms.) Reter Potom
34	Mr. Alok Singh Yadav
<b>NSS PO from Dera Natung Governement College, Itanagar, Arunachal Pradesh (1)</b>	
35	Mr. Tok Dominic
<b>NSS PO from Himalayan University, Jollang, Arunachal Pradesh (2)</b>	
36	Ms. Rumpu Nguri
37	Ms. Tana Naso
<b>NSS PO from Arunodaya University, Lekhi, Arunachal Pradesh (2)</b>	
38	Ms. Moneswari Boro
39	Mr. Toli Nyodu
<b>Department of English (3)</b>	
40	Dr. Doyir Ete
41	Ms. Bompi Riba
42	Dr. C K Panda
<b>Department of ECE (2)</b>	
43	Mr. Kurmendra
44	Ms. Champa Tanga
<b>Department of Sociology (1)</b>	
45	Mr. Bekash Bage
<b>Department of Social Work (3)</b>	
46	Dr. K P Singh
47	Ms. Chaphiak Lowang
48	Dr. Rachel Kabi
<b>Department of Anthropology (1)</b>	

49	Ms. Bengia Seemo
Department of Physical Education (1)	
50	Dr. K Rojeet Singh

## Annexure 4: Programme Schedule

### First Day: 25<sup>th</sup> March, 2019 (Monday)

Registration: 9.00 am to 9.30 am

Inaugural Session: 9.30 am to 11.00 am

First Session: 11.30 am to 1.00 pm

Resource Person

Dr. A K Sinha

Sashastra Seema Bal, RTC-Salonibari, Tezpur, Assam

Topic

Emerging Dimensions of Disaster in India with special reference to North East Region (NER) of India

Lunch Break: 1.00 pm to 2.00 pm

Second Session: 2.00 pm to 3.30 pm

Resource Person

Prof. Prabhat Kumar Datta

Institute of Development Studies, Kolkata, West Bengal

Topic

Disaster Management in Rural India: Role of the Panchayati Raj Institutions

Tea Break: 3.30 pm to 3.45 pm

Third Session: 3.45 pm to 5.00 pm

Panel Discussion

Chairman

Prof. Prabhat Kumar Datta

Institute of Development Studies, Kolkata, West Bengal

Speaker

Dr. A K Sinha

Sashastra Seema Bal, RTC-Salonibari, Tezpur, Assam

Topic

Disaster and Community Issues: Disaster Risk Reduction

Speaker

Dr. Saumya

School of Social Work, IGNOU, New Delhi

Topic

Disaster Management Cycle: Mitigation, Response, and Recovery

### Second Day: 26<sup>th</sup> March, 2019 (Tuesday)

Fourth Session: 10.00 am to 11.00 am

Resource Person

Prof. Nandini C Singh

Dean, Faculty of Environmental Science, R&U, Rono Hills, Doimukh, Arunachal Pradesh

Topic

Institutional Mechanism and Policy Measures for Disaster Management in India

Tea Break: 11.00 am to 11.15 am

Fifth Session: 11.15 am to 12.15 pm

Resource Person

Dr. Saumya

School of Social Work, IGNOU, New Delhi

Topic

Early Warning System and Disaster Management

Sixth Session: 12.30 pm to 1.30 pm

Panel Discussion

Chairman

Prof. Tomo Riba

Registrar, R&U, Rono Hills, Doimukh, Arunachal Pradesh

Speaker

Shri Umesh Kumar Thapliyal

Commandant, 12 BN NDRF, Arunachal Pradesh

Topic

Mock Drill and Capacity Building in Disaster Response: Rescue, Relief, and Rehabilitation Services

Speaker

Shri Vimersh Yadav

Airport Authority of India, Guwahati, Assam

Topic

The Role of Airports in Disaster Response

Lunch Break: 1.30 pm to 2.30 pm

Valedictory Session: 2.30 pm to 4.00 pm

### Third Day: 27<sup>th</sup> March, 2019 (Wednesday)

Field Visit to NDRF and Dhemaaji from 8.30 am onwards

Demonstration on Disaster Management and Rescue Operations will be conducted at Dhemaaji by 12 BN NDRF, Doimukh, Arunachal Pradesh

### **Annexure 5: Organizing Committee**

**Dr. Kaushalendra Pratap Singh**

**Coordinator**

Head i/c, Department of Social Work and Chairperson, CYDLS,  
Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.  
Email ID: gaur.kpsingh@gmail.com

**Ms. Chaphiak Lowang**

**Member**

Assistant Professor, Department of Social Work  
and Coordinator, Counselling Resource Cell (CRC), CYDLS,  
Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.

**Mr. John G. Gangmei**

**Member**

Assistant Professor, Department of Social Work  
and Coordinator, Youth and Community Engagement Cell (YCEC),  
CYDLS,  
Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.

**Mr. Gomar Basar**

**Member**

Member Secretary, CYDLS,  
Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.

**Dr. Rachel Kabi**

**Member**

Guest Faculty, Department of Social Work,  
Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh.