



DISASTER RESILIENCE LEADERSHIP TRAINING

25th June 2021 to 12th July 2021

**Report submitted by
SUSTERA Foundation**

Disasters have become an impending part of our lives. We have faced disasters of all kinds and learned to survive, cope and alter our living patterns according to the new normal. We believe that **building resilience capacities** among vulnerable communities to cope better and adapt swiftly is what we can do as a strengthening measure as it is humanly impossible to exactly predict or stop a natural disaster from occurring.

Sustera Foundation in collaboration with KSDMA, KILA, ATREE and fortune IAS academy designed a unique, interdisciplinary experience for young participants in Disaster Resilience. Disaster Resilience Leadership Program (DRLP) aimed to address how young leaders could be absorbed in a disaster response action plan. DRLP Commenced on JUNE 25th 2021. A two weeks, extensive training on tools to build resilient communities with the guidance of experts from state disaster management and local administrative bodies.

 **DISASTER RESILIENCE LEADERSHIP PROGRAM**



A diverse set of 50 participants from across the state including college students, Emergency response team (ERT) members, professors, lawyers, practitioners came together for 2 weeks to discuss and learn various aspects of Disaster Resilience.

Experts in disaster management and local government authorities with experience in effectively coordinating a disaster response plan in the past joined us to share their expertise and experience. The DRLP platform encouraged a co-learning environment where our participants expressed their views on each topic. We had the opportunity to learn from some of our participants about their specialisations. Our participants engaged in group activities and social media campaigns to raise awareness on Disaster Management.

Key Outcomes

The Key outcomes of DRLP,

- We were successful in creating a cohort of enthusiastic young leaders who can now support crisis-affected communities using their multi skill set as a team.
- DRLP enabled participants to develop resilience through engaging sessions and provided them with tools to convey it and empower their communities.
- Participants interacted with Experts in the field of Disaster Management and posted relevant questions.
- DRLP Participants could learn from real life experiences on Disaster Management plans from grassroots activists.
- Participants were given an opportunity to share their expertise with the group. This encouraged the co-learning experience enriching the training environment.
- DRLP engaged participants in campaigns and other activities as part of the training program to improve conversation around disaster resilience among a larger audience.
- Participants were divided into groups and organized 8 Social media campaigns on various Disasters.

Day 1: Inaugural Session

The inaugural session of The Disaster Resilience Leadership program conducted by Sustera Foundation partnered by KILA and KSDMA started with the inaugural remarks of Sanju Soman, director, Sustera Foundation. He explained that the concept of disaster resilience gains more importance in a state like Kerala where the population is densely located amidst a geography that is ecologically diverse and fragile. He also explained that the program envisages developing grassroots leaders in disaster resilience by learning from real life on the ground experience of the participants.

This was followed by an icebreaker session led by Deepa Ananthapadmanabhan, Director, Sustera foundation in which she urged participants to share a positive experience or memory that they had during the testing times of 2018 Kerala floods. The experiences shared by Nishath when he worked as a HAM radio operator during the floods and the service he was able to carry out, the one shared by Pratheesh about how he was a part of the emergency response team at Kavalappara landslides in 2019 and his first hand exposure to a disaster, the one shared by Fathima where she was taken aback by the overwhelming influx of relief materials that came in at flood relief collection centers at Trivandrum etc. were enriching ones. The responses from the participants exhibited the academic, cultural and social diversity of the training's participants.

The following informative session was handled by Sriram, the LSG Disaster Management Plan Coordinator for Trivandrum and provided a comprehensive outlook on the basics of disaster management and resilience. The session explained the classifications of various disasters, explained the concept of disaster risk and its measurement while focusing on the three pillars of disaster resilience: Prevention, Preparedness and Mitigation. The session concluded by detailing the importance and need of scaling up local level actions to concrete disaster management plans.

Sriram's session was followed by a disaster resilience activity led by Sanju conducted in the form of an online poll, aimed at understanding the participant's basic disaster response skills and knowledge. The poll yielded some interesting results: more than half of our participants did not know how to swim, which can be seen as a vital observation considering the spread of water bodies in the state of Kerala. Majority of the respondents seemed confident that they can cook food for 20 people or more when needed and also that they can drive a four wheeler. Lion share of the participants were well aware of local resources and contact points in case of a disaster emergency and also said that they were able to identify a point of high elevation and an open area as well in the case of an emergency.

Post this activity Souparna of Sustera foundation explained the structure and importance of activities of this training program and urged participants to take an active involvement in the activities. She also gave the participants an activity to work upon during the weekend asking their response about disaster vulnerability, preparedness and foresight.

Day 2: Disaster preparedness, Management and Kerala State Disaster Management Authority by *Fahad Marzook*

The session on Day 2 of the program on Disaster preparedness and Management and Nature of work with Kerala State Disaster Management Authority was led by Fahad Marzook, Hazard Analyst, at KSDMA. Fahad being a meteorologist works as Climate hazard analyst focusing on specific disasters such as Cyclones, lightning etc. He briefed about the overall functions and vision of KSDMA and said his role in the agency's overarching focus on assimilating climate

change and its repercussions onto mainstream discussions of disaster management. The session was organized as an interactive one in which Fahad responded to various queries from participants.

Arun asked about the effects of recent cyclones in Kerala and about being better prepared towards cyclones. Fahd explained the multiple processes behind the formation of cyclones and the increasing effect that climate change and extreme weather events have on cyclones. He said that due to the geological advantage of Kerala cyclones have not reached landfall and that has been advantageous to the state. He explained KSDMA's objective of ensuring coastal hazard risk reduction which is achieved through a multi-pronged strategy that focused on developing efficient early warning systems, building multipurpose coastal shelter homes, capacity building in coastal communities and building awareness amongst bureaucrats involved in coastal disaster management efforts.

Fahad briefed about KSDMA's lightning action plan and the importance of the state specific disaster of lightning. He opined that more and improved lightning warning systems which would facilitate more information dissemination regarding lightning events was the need of the hour. He also explained KSDMA's vision of developing a scientific and factual Kerala Model of disaster response and management which focused on improved risk information communication and increased public participation.

On questions regarding impacts of sea level rise in Kerala and efforts aimed at its response, Fahad explained the various anthropogenic, geological and climatic influences upon coastal erosion and sea level rise in Kerala. He explained the heterogeneity of the Kerala coast and said that on a larger perspective localized reaction plans based on the behavior of local coasts is essential in meeting such challenges. He also explained KSDMA's vulnerability linked rehabilitation projects - like Punarageham - aimed at rehabilitating the densely populated coasts of Kerala.

Fahad also responded to queries about the formation of cloud bursts by briefing the process behind cloud bursts and its impact on a region. He further explained the climatic processes/events that caused the 2018 Kerala floods as well as the anthropogenic influences that exacerbated its effects in detail. He said that although there has been a spike in the number of extreme climate events in Kerala in recent years, there is no concrete data available to connect the Kerala floods of 2018 with the global climate change pattern as of now.

Sanju in his closing remarks explained the openness and flexibility of KSDMA as well as its vision. He also urged participants to explore the opportunities of associating with Kerala's apex agency in disaster management by explaining their multi-disciplinary and inter agency projects as well.

Souparna briefed about the next day's session and explained in detail about the scorecard activity for the participants and winded up the session.

Day 3: Landslide Management - Narrative of Real life experience in Disaster Management- the Meppadi Story: Mr. Sahad Ex panchayat president Meppadi

The session on Day 3 was a narrative of a natural disaster: the landslides in Meppadi, Wayanad Kerala. The session was led by the former panchayath president of Meppadi Panchayath Mr. Sahad, who was a first line emergency responder and leader at the time of the disaster. He gave a brief history of settlement at Meppadi, the geography of the hilly terrain, its demographic details and explained the timeline of the disaster in August 2019. He said that although torrential rains contributed to the disaster, the monoculture estates that cultivated cash crops along the hillocks of Meppadi aggravated the disaster's impact and that the landslide took place at an area that they least expected it to occur. He said that the relocation efforts and preparations before the disaster contributed immensely in reducing the loss of human life during the landslides.

Sahad explained that the key task in front of the responders in the face of a natural disaster like the one at Meppadi was to reinstall the confidence and help the survivors and the community to pick up their morale to respond to the disaster that struck them. He explained how he and early responders formed a team and expanded it to involve youth and voluntary organizations in and around Meppadi for rescue and rehabilitation efforts. He stressed upon the role played by youth and volunteering organizations in the post disaster efforts at Meppadi. Sahad, from his experience from Meppadi, said that a post disaster strategy must focus on the three pillars of Leadership, essential goods and supplies and well equipped and organized group activity. He opined that the lack of local awareness regarding the terrain and its suitable land use pattern and proper land management resulted in the large-scale disaster at Meppadi and that there should be local land use plans that demarcate areas for specific land use.

In response to the participants' questions regarding the takeaways from landslide prone areas from the Meppadi incident, Sahad emphasized upon the importance of well guided research to understand the capacity and land use of each terrain and that activities must be guided based on that research for ex: the deeply dug cardamom pits at Meppadi reduced the terrains water holding capacity and has contributed to the landslide. He also gave vital inputs on the natural precursors of a landslide like the natural streams increased flow, groundwater level rise, small cracks upon the soil etc. which might help to identify an impending landslide On questions regarding post disaster activities at Meppadi, Sahad also explained the efforts aimed at increasing awareness regarding the importance of scientific land use and organizing emergency response teams composed of local volunteers while training them for emergency response.

Day 4: Dealing with a Public Health Crisis - Dr.Vinayak,WHO

The session on Day 4 led by Dr. Vinayak, State Medical Surveillance officer under World Health Organization, focused on the importance of medical surveillance and availability of reliable data during a medical emergency such as a pandemic. Dr. Vinayak started the session by urging the participants to share their views on the importance of medical surveillance and its impact on the public health position of a region. Dr. Vinayak explained the importance of continuous medical data surveillance that provided reliable and prudent data for decision makers of public health. He emphasized that such data attains increased importance at times of pandemics wherein a large proportion of the public is exposed to a health risk. He explained how India effectively overcame Polio to become a polio free nation through an efficient system of medical surveillance.

He explained that using effective surveillance in Disaster Management decisions can make such decisions targeted and actionable and that surveillance has a major role to play in shaping disaster resilient individuals and communities. He further explained how data precision has aided in identifying risk factors in a situation thus leading to better decision-making. Dr. Vinayak further explained the rationale behind the state level Covid management strategy that is aided by data collection and monitoring wherein various assessments of level of transmission, health system capacity, level of vaccination etc. is factored in while making decisions. He also explained the statewide network of medical data surveillance in which each district is placed under a medical surveillance officer who monitors the working of PHCs by keeping in touch with field health officers. This helps in assessing and advising state public health officials to take necessary precautions before a public health disaster

Day 5: Leadership Skills and Disaster Resilience : Sunil Devaduthum

The session on Day 4 concentrated on the key leadership skills that are essential for resilience leaders in their frontline efforts. The session was led by leadership trainer Mr. Sunil Devaduthum who designed the session as an interactive and participative session. The session kick started with an activity in which the participants were encouraged to share a quality associated with them that started with an alphabet from their name. All the participants responded positively to this activity from which, Sunil picked out and highlighted the importance of leadership qualities amongst the ones shared. He stressed upon the important traits that a leader must possess by enumerating them as: Vision, Understanding, Clarity and Agility which he said were key skills for a leader in an emergency situation such as a disaster. The session also explained the importance and key components of delegation and communication skills and enumerated ways to develop them as well. He also emphasized on the need of being creative in a crisis, which separated leaders from others during the time of a disaster as disasters often are unprecedented

events and need innovative solutions. The session dealt in detail with the necessity of teamwork where a leader's interpersonal skills are of utmost importance. The session also inspired the participants to become situational leaders who spread positivity by motivating others into swift thought and action during crises such as disasters.

Day 6: Disaster Resilience and Grassroots activism - Badusha N, Wayanad Prakriti Samrakshana Samiti

The session on the sixth day of the Disaster resilience leadership program focused on the importance of grassroots activism in building disaster resilience. The session was led by Badusha.N, President of Wayanad Prakriti Samrakshana Samiti. Badusha has been involved in climate litigation and grassroots level climate activism for more than four decades and shared his vast experience and knowledge in the field with the participants. His session detailed his experiences and observations with the ecology and natural life of wayanad over the past couple of decades. He detailed the history of Wayanad's fragile ecosystem and its natural resources along with how it has been exploited over the years. These resources have been used sustainably by the early settlers of wayanad and the increased exploitation has also altered their natural lives as well. He said that the natural disasters of Wayanad and surrounding areas can be attributed to this unscrupulous exploitation of nature. Disasters such as forest fires, landslides, floods, man-animal conflicts - which are also an ecological disaster - are exacerbated by the anthropogenic interference of wayanad's fragile ecology. 255 large landslides have occurred in wayanad where tourist spots have been developed and new constructions have been made. The puthumala landslide has been aggravated by quarrying activities and logging in and around wayanad. He also remarked about increasing desertification around the shores of the Kabini River where the river's natural inlets are drying up.

He detailed how the government projects such as monoculture plantations and hydroelectricity projects have disrupted the biodiversity of the region. He opined that development has translated into a slang word wherein the natural habitats and terrain has been altered and damaged to give way to non-feasible and disruptive infrastructure projects which will eventually collapse, leading to further degradation of natural ecosystems. Beyond this, he also briefed how local and decentralized activism and resistance have paved way in stopping this exploitation in wayanad. Grassroots activism and movements had serious impacts in stopping quarrying in Wayanad as well as in amending municipal building rules across the district.

On a concluding note in response to the various queries raised by the participants as to how to reverse such ecological disasters, he urged the younger generation to stay aware and open to what is happening to the natural ecosystems around them to catch a hold of the reality. He remarked that once we are aware of the grave situation of our ecology, it would eventually translate into meaningful action towards protecting our natural ecosystems.

Day 7: Disability Inclusive Disaster Management - Joe John George, KSDMA

The seventh session of the climate resilience leadership was based on Disability Inclusive Disaster Management and was led by Joe John George, State Project Officer, and Kerala State Disaster Management Authority. Every year Kerala faces a major disaster event. In such events so often the recovery, resistance and resilience of the disabled is often undermined. When 2.23% of Kerala's population consists of differently abled people, due consideration should be given to their ability to be resilient in disaster events.

The KSDMA, with this motive has developed and is implementing initiatives to strengthen emergency response capabilities of persons with disabilities since 2015. Joe John explained the details of the project and how it is designed to manifest the vision of the state to become a safer state for the differently abled. The Disability Inclusive Disaster Risk Reduction Project (DIDRRP) specifically tries to translate this vision into action. The project was conceptualized through ground level consultations with DRR and Disability experts and also with persons with disabilities. KSDMA has designed disability appropriate training materials for disaster risk reduction and has been conducting state wise training programs for persons with disabilities. KSDMA has also developed a 24*7 helpline with sign language, an inclusive early disaster warning system and a system of information dissemination in sign language as well.

During the pandemic, KSDMA has followed a strategy of Disability Inclusive Covid response system wherein the Covid response as well as information sharing has been done in an inclusive manner. Joe John also shared an incident where KSDMA had coordinated efforts to supply hearing aid batteries to the needy during the early phase of the pandemic in the state when the state went under lockdown restrictions. On the question on gender specificities in DM training, he responded that KSDMA has recently designed training programs that venture into gender minorities and aims to explore further into gender specific needs as well in disaster training. On the participant's question regarding the safety of persons with disabilities in disaster relief camps, Joe John responded that KSDMA has released an 'Orange Book' as a guide containing instructions for differently abled care and that the relief camps are operated based on that guide document. In response to the question regarding the absence of universally inclusive design in infrastructure and public design, he remarked that it was a hindrance in providing disaster friendly DM plans but expressed his optimism that things were getting better by the day in this area.

Day 8: Resilient Kerala and Sustainable Tourism - Gopinath Parayil, Co-founder Chekutty and Founder of the Blue Yonder

Session on day 8 was led by Gopinath Parayil, co-founder of Chekutty and the founder of sustainable tourism enterprise The Blue Yonder on the subject of Kerala's disaster resilience and the scope of sustainable tourism in the state's context. Gopinath Parayil with his expertise from first line response during the Kerala floods of 2018 shared his views on the resilience of Kerala, especially the grassroots organizations contribution, in order to bounce back from the impact of the disaster. He explained how organizations such as The Blue Yonder functioned as first responders during the floods and how they kept in constant touch with the ground level reality during the disaster. He further explained how networking by Blue Yonder and similar organizations helped to tide over the difficulties faced during the times of the disaster and the importance of assessment and targeting of relief operations during a crisis.

He explained the much needed shift towards sustainable tourism, in which the focus should be placed on localization of tourist destinations as well as resources. He opined that such projects should essentially aim at motivating local livelihoods while catering to the needs of tourists as well. He stressed upon the importance of the tourism industry's increased investments in local practices and produce. Gopinath further explained that Climate change specific policy making and implementation in tourism is the need of the hour. By which each individual should be able to map and measure the climate crisis faced by their respective communities and plan accordingly. He presented a good example of how a community merged climate change responsive policy and localization into developing a climate resilient food initiative. The - Ezhikkara co-operative Service bank started cultivating the rice variety of 'Pokkali' which is a climate change resilient local food produce. They also presented the rice to tourists as an indigenous food item while linking local produce and farmers to the tourism industry thus ensuring them with a sustainable income generation platform.

On a concluding note, Gopinath remarked that the future of Kerala's tourism must be rooted in encouraging resilient communities that support local ecosystems. For this, he said that there should be increased government support and effective use of cost effective modern technological inputs to strengthen and develop new local tourism initiatives and products.

Day 9 : Local Self Governments and Disaster Management Planning - Neha Kurian,KILA

The ninth session of the Disaster Resilience Leadership training focused on an important topic in developing disaster resilience: the role of local self-governments in disaster management and planning. The session was led by Neha Kurian from Kerala Institute for Local Administration and was based on the structure and involvement of LSG in Kerala's disaster management efforts.

She explained the State's disaster risk response system that functioned at the local self-government level and its breakup into specific response teams composed of local and community volunteers.

She explained the renewed strategy of KILA in Disaster Management that has changed focus from disaster rescue to improved Disaster risk reduction by empowering local actors. KILA aimed to develop this strategy through its 13th working group composed of experts in ecosystem management, climate change, environment protection and disaster resilience and risk reduction focusing on sustainable DM planning at the local level. Under this scheme all local self-governments were encouraged to develop their own local disaster management plans which would act as a preliminary guide in the event of a disaster. Neha also explained the contents and composition of the DM plans and hierarchy of the state's disaster management flowchart in detail. She stressed upon the importance of local participation and involvement in ensuring the success of a community's local DM plan wherein the grama sabha should function as the basic unit where DM plans should be assessed and revised based on a community's need and capacity.

During the interaction post the session multiple participants shared the utility and effectiveness of KILA's local DM plans. Many participants who were part of emergency response teams during local and state wide disasters shared their experience where these DM plans acted as their primary reference point for action. In her closing remarks Neha remarked that the success of a DM plan is entirely dependent on a quality of data collection and involvement by a community who are the benefactors of such a plan and that potential disaster resilience leaders must take an active role in redesigning their local DM plans.

Day 10: Sridhar Radhakrishnan, Environmentalist

The session on day 10 was led by noted environmentalist and nature activist Sridhar Radhakrishnan. Sridhar's session focused on the importance of recognizing and addressing the magnitude of our planet's environmental and ecological destruction. The session also aimed at motivating students and the youth in making conscious efforts in ecological restoration and protection. By citing several examples of severe environmental destruction caused due to human intrusion into natural ecosystems, he stressed upon the importance of having a multi-disciplinary expertise in addressing complex issues such as climate change. He elaborated on the interconnections in the natural world and how ecosystems support and complement each other and also how amoral and unscrupulous human interactions alter the balance.

Further he said that reclaiming our connection with nature and the ways of the natural world is the way forward in tackling our challenges. Our exploitative mindset towards natural resources must be replaced by a regenerative and restorative mindset. In this context he elaborated on the importance of the current decade of ecosystem restoration and the vital role played by different

ecosystems. He stressed upon the need of understanding local ecosystems along with their diversities and aligning our actions based on the nature of specific ecosystems.

In the context of Kerala, he opined that the state's development model does not fit the state's natural landscape. Kerala's indigenous ecosystems such as marine, coastal, shola, hilly ecosystems must be restored and left unaltered by development projects and that these projects must essentially include ecologically sensitive landscape planning. Restoration efforts should be localized and sensitive to a natural ecosystem's need and capacity and an all pervasive restoration model will not yield positive results. On a concluding note, he remarked that our priorities must be reimagined to be more restorative and regenerative whereby our linear extractive economic models must be replaced with the circular economic models.

Day 11: Disasters and ecosystems: disaster resilience in a changing climate based on nature-based solutions - Hameed Hussain, District Coordinator ()

The session on Day 11 was led by Hameed Hussain, District Coordinator () based on the topic of nature based disaster resilience. Hameed's session was anchored on the relevance and importance of ecosystem based disaster risk reduction (Eco DRR) and climate change adaptation which aimed at achieving multiple socio economic benefits that can be generated regardless of the effects of disasters. The session focused on the need of mainstreaming natural based approaches for disaster risk reduction into developmental and planning processes. The session also dealt in detail with the components of disaster risk and methods to reduce or mitigate disaster risks. Hameed explained the importance of inculcating climate change adaptation into the gamut of disaster risk reduction as our exposure towards climate change vulnerability is on the rise in recent years.

Through the session, Hameed detailed the capacity of natural ecosystems to mitigate disasters as different ecosystems offer increased disaster resilience capacities to communities worldwide. He explained the concept as well as importance of Eco DRR that entails sustainable management of ecosystems with DRR methods, such as Early Warning Systems and Emergency planning in order to promote effective disaster prevention and to support speedy disaster recovery. He opined that well managed natural ecosystems such as wetlands, Marine ecosystems and forests act as natural infrastructure that reduces the physical impact of disaster by raising the socio-economic resilience of people and communities. He also shared many examples of successful Eco-DRR initiatives from across the globe such as the Swiss Alps, Slope stabilization in Brazil, Mountain EBA program in Nepal etc.

Hameed also briefed about the various planning tools for Eco-DRR and adaptation such as GIS and Remote Sensing for DRR, while also sharing valuable inputs about sustainable economic tools for Ecosystem based disaster risk reduction and adaptation.

Day 12. **Presentations**

The participants were divided into 8 groups and assigned various disasters. On the final day of the training program, all participants presented their research outcomes on the assigned Disaster. The groups discussed best practices from across the globe to mitigate the impact of the respective Disaster. The last day of DRLP provided great insights and reflected the dedication with which each team member worked.

The DRLP team is all set to take up new challenges as leaders of Disaster Resilience. Few of our participants have taken up an effort to extend support to a coastal community near Veli, Vettucad region, affected by Tauktae cyclone.

The few challenges we faced in organising DRLP were,

- The virtual mode of training compromised on a lot of interactions that would have been otherwise possible.
- 2 weeks and 12 Sessions limited the scope of interaction to our chat boxes. With the time constraint it was not practical to hear from all 50 participants.

We look forward to further widening the scope of the Disaster Resilience Leadership Training by rectifying the limitations of DRLP 1. We have planned several follow up activities for strengthening our very bright cohort of DRLP 1 leaders.

Please see below the testimonial from a few of our participants.

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The Disaster resilience leadership program

addressed the emotional, human side of disasters while giving scientific inputs into disaster resilience and recovery. The programme provided me with more clarity on the topic while instilling a confidence in me to work as a frontline leader in disaster Resilience.

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ASWATHY M S
Pursuing B.Ed in Social science
Calicut University

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The Disaster resilience leadership program

was an enriching learning experience for me.

It provided me with exposure to fellow disaster resilience leaders across the state while acting as an engaging platform for peer learning and networking. The grassroots level experiences of my fellow participants were absolutely inspirational.

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**UMA LEKSHMI**

Masters in Sustainable livelihoods
and Natural Resources governance
Tata Institute of Social Sciences

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The Disaster resilience leadership program

provided me with a platform to learn from the experiences of frontline leaders in the field of disaster management hailing from different walks of life. The experiences shared by the session leaders as well as the participants was my major takeaway from the program. The opportunity provided by the program to present the various aspects of a disaster was a learning curve which has boosted my confidence in the field of disaster management. All my best wishes for your future endeavours.

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