

## Unlocking The Value of Digitization in Disaster Management and Incident Reporting

### About the Customer:

On 23rd December 2005, the Government of India took a defining step by enacting the Disaster Management Act, 2005, which envisaged the creation of the National Disaster Management Authority (NDMA)<sup>1</sup>. NDMA is the regulatory body in India to set up policies and guidelines for disaster management at the state and district levels. The authority is headed by the Prime Minister of India and envisions the development of an ethos of prevention, mitigation, preparedness, and response. The Himachal Pradesh State Disaster Management Authority (HP SDMA) is the government organization aiming to plan, develop, and implement measures to prevent and respond to disasters within and across Himachal Pradesh State.

Through working with the Asian Disaster Preparedness Center (ADPC), an autonomous international organization that works to build the resilience of people and institutions to disasters and climate change impacts in Asia and the Pacific, HP SDMA intended to plan and implement a holistic approach to enhancing the state's preparedness and response to disasters.

### The Challenge

Himachal Pradesh is considered one of India's top cities prone to natural disasters. According to [Himachal Pradesh Development Report](#), earthquakes, landslides, cloudbursts, floods, forest fires..etc have caused tremendous loss to the state. Besides the loss of lives, these natural disasters also strain the state exchequer.

Whilst Himachal Pradesh SDMA employs 4000+ trained personnel and 200,000+ other resources such as vehicles, medical equipment, fire extinguishers, lights etc; the communication across different state agencies and resources remained manual causing delayed incident reporting and ineffective response to disasters. The need to expand collaboration among agencies and utilize resources effectively heightened and HP SDMA officials envisaged the implication to integrate digital technologies for incident reporting and disasters response. Managing, tracking, and allocating state resources during the time of emergencies was also another key challenge for Himachal Pradesh.

### How Quantela Helped

The Incident Management and Reporting System powered by Quantela's platform was proposed to integrate various preparedness elements, resources inventory, geo-spatial maps and allow prompt response to real-time incidents through updates from SOP and Field Officer Mobile App for tracking different tasks.

Quantela's platform integrates with India Disaster Recovery Network (IDRN) on a single dashboard to provide real-time data to officials and decision-makers. The data analysis helps take precautionary measures as well as allocate trained personnel and resources in the time of incidents. The Incident Management and Reporting System creates an end-to-end workflow of incidents which includes data on losses and damages. The Field Officer Mobile App helps to provide the latest report of incident types with loss and damages done during incidents along with attachments of relevant photos.

### Himachal Pradesh

Located in the lap of the Himalayas

The State is known as the land of Gods

One of the top three states of India to have the highest human index

Ranks on number 11 as the most literate state of India with **83.78%** literacy rate



**4,000+**

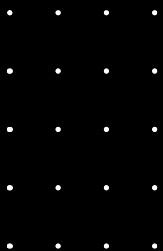
Users of the pilot  
solution

**20 min**

Incident reporting time

**70%**

Reduction of manual  
processes



Applying Quantela's solution helped HP SDMA with:

- Efficient and prompt incident reporting to authorities
- Evaluation of incidents and allocation of resources
- Monitoring resources across state locations to ensure their availability before incident happens
- Registering staff and volunteers who are going to be part of the disaster management plan
- Assessing losses and damages and ensuring that citizens get losses covered by the government
- Comprehensive view on resources and resource mapping
- Maintain database of Volunteers to be mobilized during incidents

In 2021, The HP SDMA project has been recognized to be amongst the top 10 finalist innovators in TechEmerge Resilience India Challenge conducted through the Asian Disaster Preparedness Centre (ADPC). Through ADPC, the project granted funds from the World Bank.

#### **Outcomes Delivered**

##### Increased Operational Efficiency:

- ✓ Incidents reporting time across HP state reduced to 20mins through Quantela's field officer app. Instead of reporting through WhatsApp and emails which took at least 2 to 4 hours to reach the higher authorities.
- ✓ Using digital reporting and communication reduced 70% of manual efforts in tracking incidents and generating reports.
- ✓ 4,000+ users include Panchayat, patwaris, health workers, Asha workers, Angad wadi worker, tehsildars, SDM, SHO, SDO, program officers, block officers, DEOCs, DC, SP etc. across all 12 districts.

##### Effective decision-making:

- ✓ The integration of the Field Officer App and the platform helped HP SDMA to generate and collate incident reports within 2 hours with less manpower.
- ✓ decisions are being made faster to avoid damages and losses as much as possible.

The pilot solution's development was completed in January 2022. The project was implemented and used by HP SDMA staff over the course of six months, from February 2022 to July 2022. It is currently being examined to be extended and used further by HP SDMA management in accordance with their usage requirements.