Using Science & technology to Implement the Sendai Framework at the local level.

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Background

- A exemplary case of **Public Private Partnership** towards implementing the SDG's and Sendai Framework in DRR

- **Centre for Disaster Risk Resilience(CFDRR)** a registered Trust comprising of professionals with UN background in partnership with **2 Provincial governments** was the implementing agency for capacity building for the Nashik Kumbh Mela and Shri Mata Vaishno Devi Shrine Board

Profile of the Two Case Study's from India on how Science and Technology was used at the local level

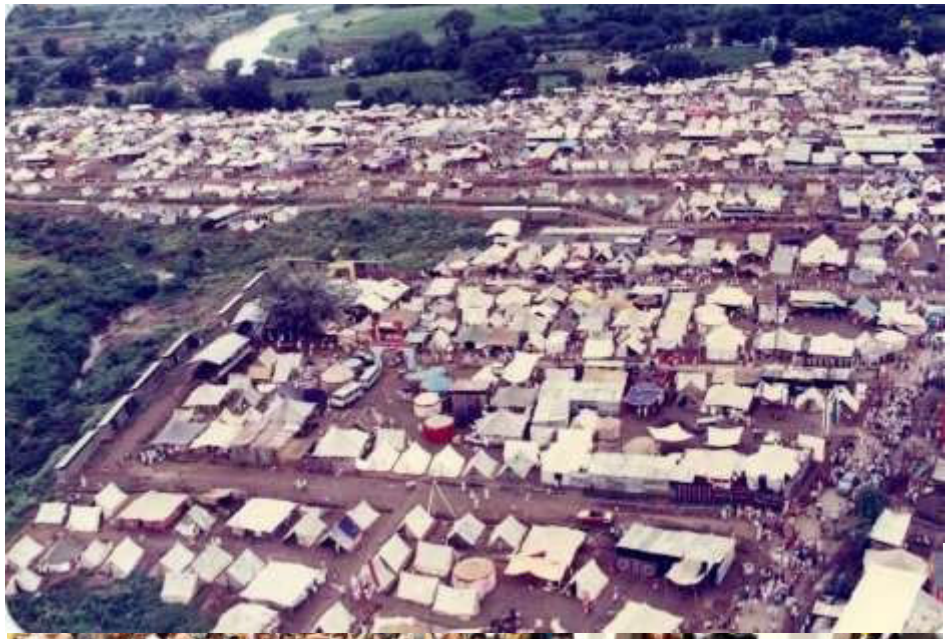
Shri Mata Vaishno Devi Shrine Board, Katra

- India's most revered shrine visited by 20 – 30,000 people per day is located at the Himalayan mountain at an altitude of 6,270.
- Vulnerable to Landslide, Cloud burst, Earthquake, Terror attack, stampede

Kumbha-Mela, Nashik

- Single largest religious event where more then 10 million people take a dip in the river on an auspicious time. In India, occurs at 4 places, once every 12 years at each place. Nashik's is 3rd largest.
- Vulnerable to drowning, epidemics, Stampede, terror attack

Over view Picture of Nashik Kumbh Mela

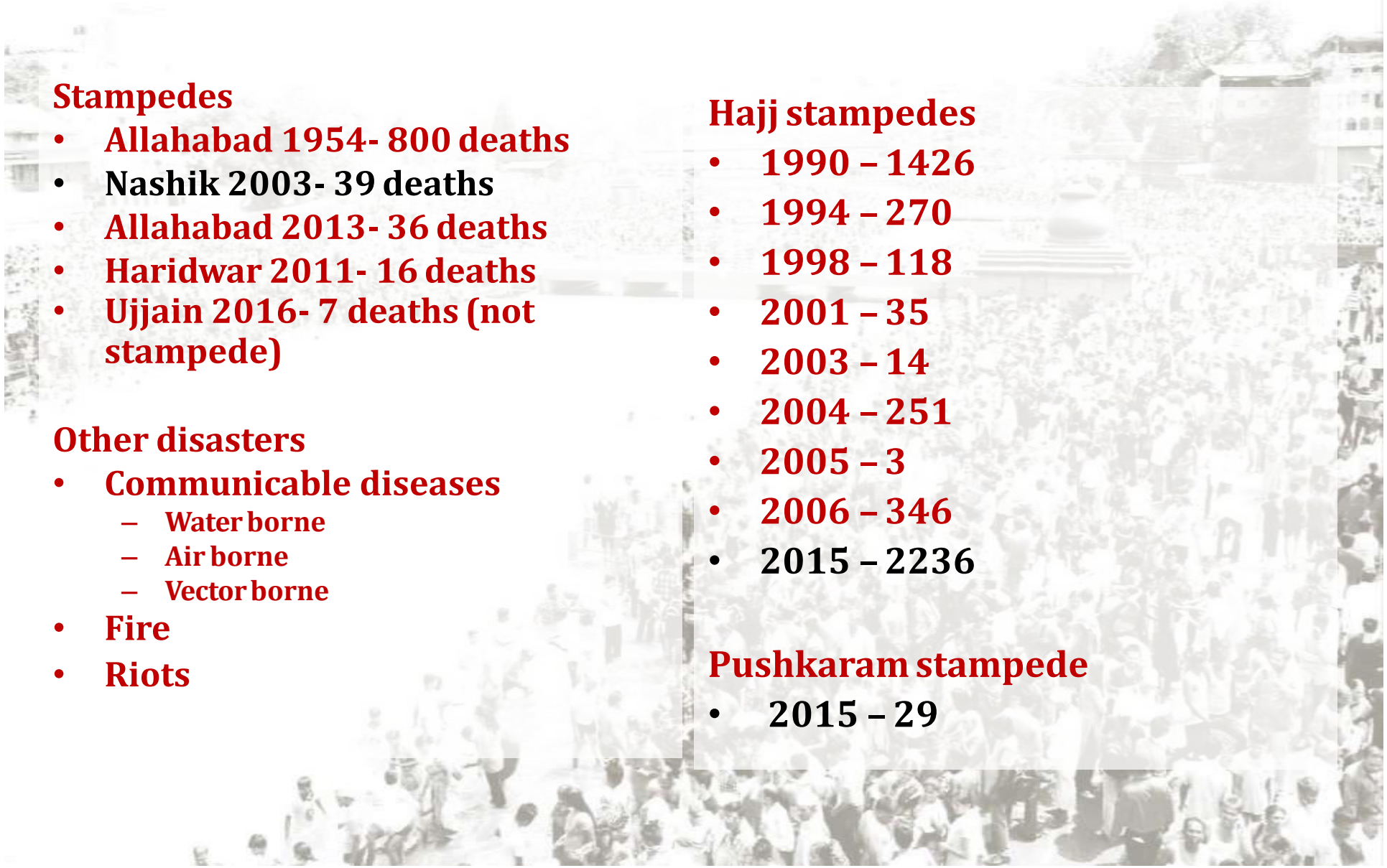


What is Kumbhmela?

- Hindu religious event.
- It is largest human congregation in the world.
- Takes place at 4 places, once every 12 years at each place.
- Nashik's is 3rd largest.

- The event goes on for more than a month.
- However three Auspicious days have maximum attendance of devotees & religious heads

Past History of Kumbh & Mass Gatherings
Priority 1: Understanding disaster risk



Stampedes

- Allahabad 1954- 800 deaths
- Nashik 2003- 39 deaths
- Allahabad 2013- 36 deaths
- Haridwar 2011- 16 deaths
- Ujjain 2016- 7 deaths (not stampede)

Other disasters

- Communicable diseases
  - Water borne
  - Air borne
  - Vector borne
- Fire
- Riots

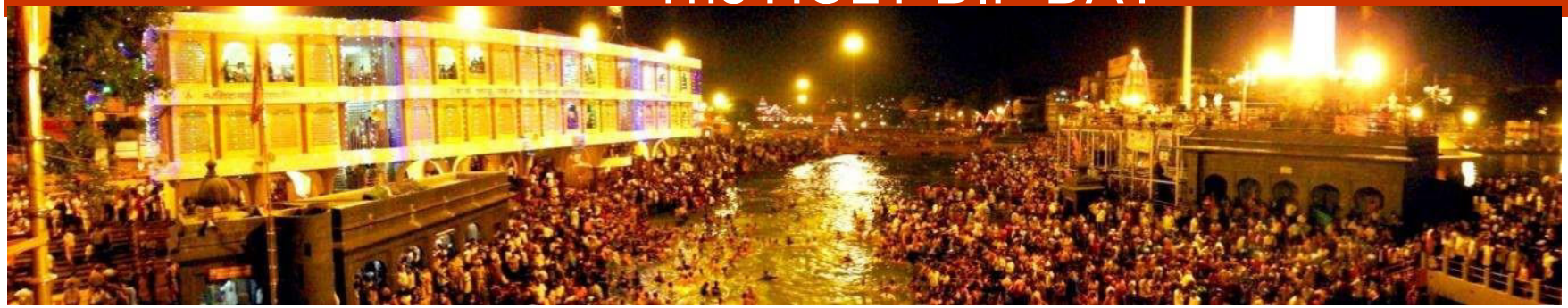
Hajj stampedes

- 1990 – 1426
- 1994 – 270
- 1998 – 118
- 2001 – 35
- 2003 – 14
- 2004 – 251
- 2005 – 3
- 2006 – 346
- 2015 – 2236

Pushkaram stampede

- 2015 – 29

The HOLY DIP DAY



Priority 1: Understanding disaster risk

- Administration related:-
- Command & control of the system
- Supervision of so many works

- Crowd related:-
- Rainy Season
- Accommodation
- Crowd management & security
  - Esp terror threats
  - Preparedness to handle disaster
- Hygiene & sanitation
  - Toilets, solid waste management
- Transportation & parking
- Water supply
- Medical facilities
- River & Environment

Priority 2: Strengthening disaster risk governance to manage disaster risk

- Detailed microplanning.
- Infrastructure development to be done in short time.
- Service delivery without any error.
- Taking everyone along.

Priority 2: Strengthening disaster risk governance to manage disaster risk

- 20 thousand citizens came together to clean up the rivers.
- 374 tonnes of garbage was cleared by them.

Priority 3: Investing in disaster risk reduction for resilience

Sadhugram

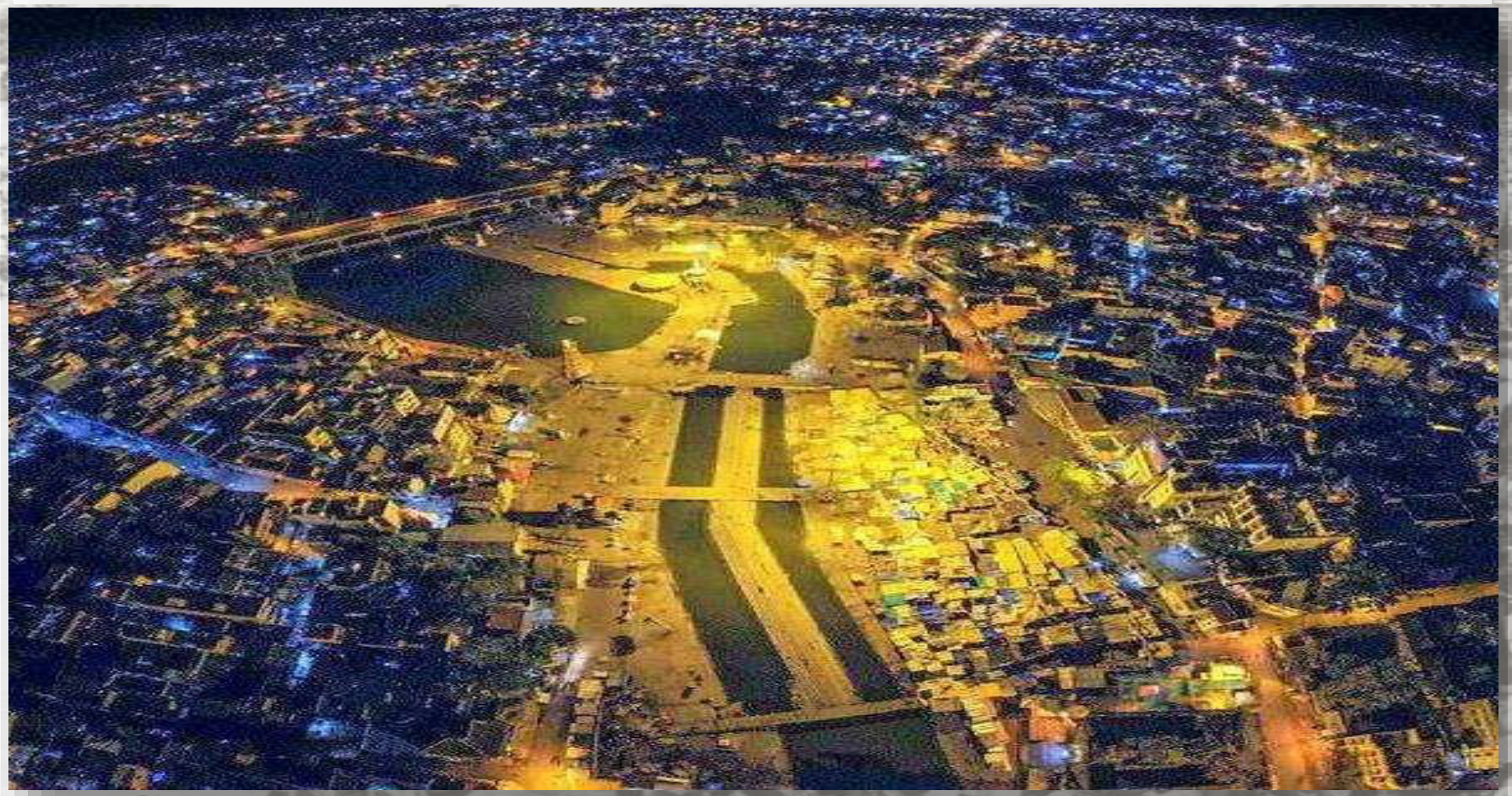
- 9029 Toilets
- 11290 Bathing Taps
- 2145 Standpost Taps
- 27 Km of Sewer Line
- 32 Km of Water Supply Line

Sadhugram

- 1269 Street Light Poles
- 22 Km of Internal Roads
- 16 Km of Service Roads

Ghats (Developed riverfronts)

- 5 kms of total ghats compared to 1.5 kms in 2003.



Roads & Bridges

- 629 km roads constructed/repaired/widened .
- 7 new bridges constructed/widened.

Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction Emergency Operation Centre

MIT KUMBHATHON
The Global KUMBHA Challenge 2015

- MIT, Boston, Govt, NMC, private companies & engineer came together for series of hackathons.
- This is now going to be formalised in the form of permanent innovation centre “Digital Impact Square”.

Case Study of Shri Mata Vaishno Devi Shrine Board,Katra, Jammu

Over-view Picture of Shri Mata Vaishno Devi Shrine
Priority 1: Understanding disaster risk

-Over 20 - 30,000 every day and
-More then 45,000 on Auspicious Days
-Narrow Track
-prone to Landslide, Shooting Stones, Earthquake, Fire, Cloud Burst, Terror Attack

Priority 2: Strengthening disaster risk governance to manage disaster risk

- Systematic DM Plan with Incident Response System
- Five Joint Control Room
- Location wise Inventory Build-up.
- Disaster Management Task Force has been created

Priority 3: Investing in disaster risk reduction for resilience

Priority 3: Investing in disaster risk reduction for resilience

Use of simple scientific methods for DRR

Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction

Disaster Management Task Force (DMTF)’ has been constituted and specially trained in relief and rescue. Capacity building measures *inter-alia* includes more than 80 supervised and professional training sessions in DM catering more than 2000 employees. Various other areas of trainings include *search and rescue*, *evacuation*, *emergency medical first responders* etc with emphasis on frequent mock drills at various stations. PL.see the 2 mts. Video.

Contd.

3 Minutes Training Video

Priority 4 contd.

- Six *Medical Relief and Care units* (with BLS, ACLS qualified doctors and paramedical staff), 230 bedded Shri Mata Vaishno Devi Naryana Super Speciality Hospital established in the vicinity.
- To integrate information technology in DRR, *underground network of OFC(Optical fibre Cable)* has been laid on the entire tortuous and daunting track of approx 12 Km length.
- 3 emergency helipads have been established as part of *emergency evacuation plan*.

Testimony to our fulfilment of the Framework:

- SMVDSB was in the Prestigious LONG LIST OF THE UN SASAKAWA AWARD,2015

www.wcdrr.org/sasakawa and click on the video

Thank you for your patience