# handling disaster,
# Jammu & Kashmir Floods, 2014

BY
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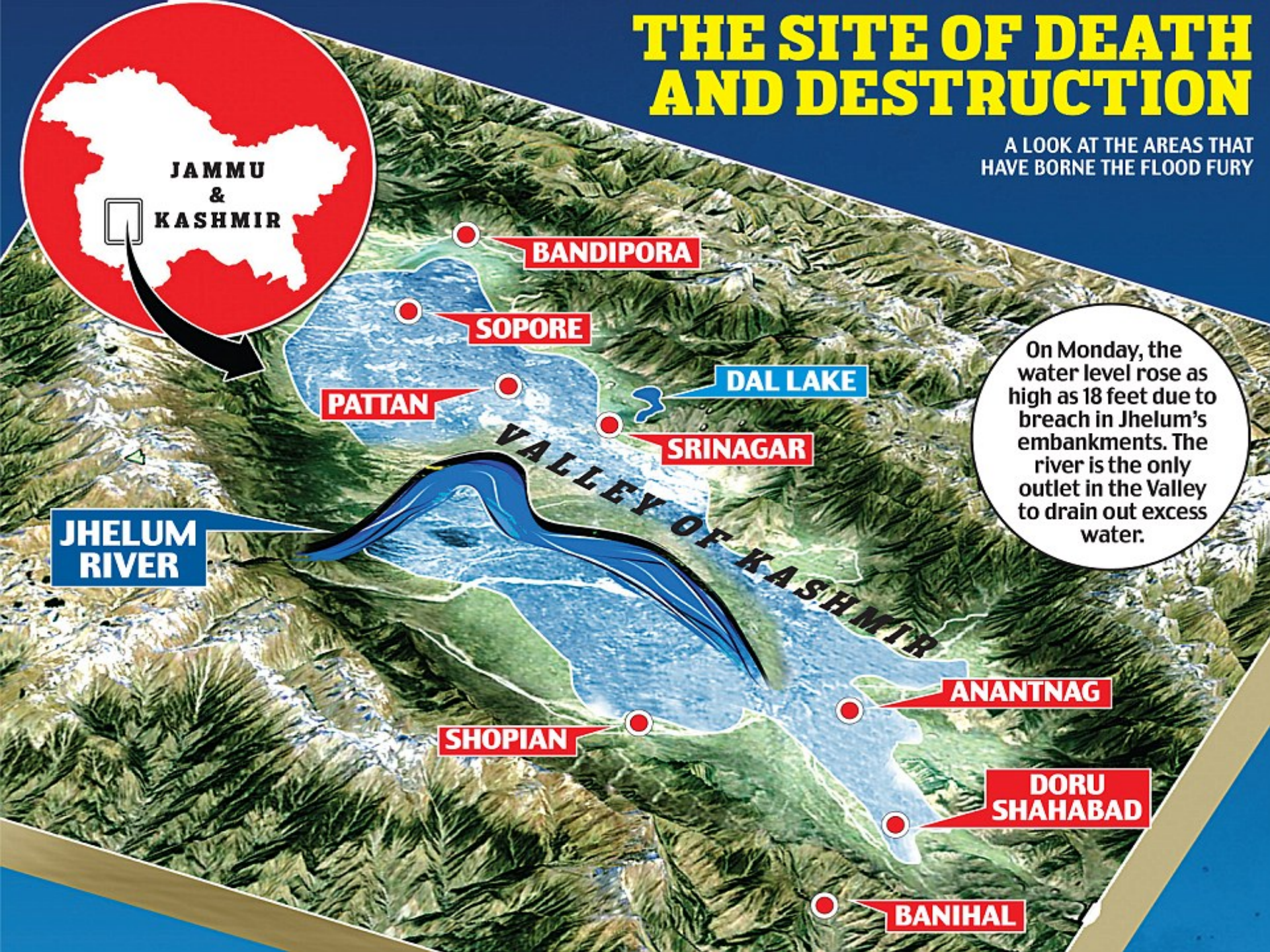
# THE SITE OF DEATH AND DESTRUCTION

A LOOK AT THE AREAS THAT HAVE BORNE THE FLOOD FURY



# Historical Perspective.

| Flood duration observed during some major floods in the past:- | | | |
|---|---|---|---|
| | SANGAM | RAM MUNSHIBAGH | ASHAM |
| 1973 | 5 days(8/8/1973 to 13/8/1973) | 6 days (9/8/1973 to 14/8/1973) | 7 days (10/8/1973 to 16/8/1973) |
| 1975 | 3 days (15/7/1975 to 18/7/1975) | 7 days (15/7/1975 to 21/7/1975) | 7 days (16/7/1975 to 22/7/1975) |
| 1976 | 10 days (31/7/1976 to 9/8/1976) | 12 days (31/7/1976 to 11/8/1976) | 13 days (1/8/1976 to 13/8/1976) |
| 1992 | 6 days (9/9/1992 to 14/9/1992) | 7 days (9/9/1992 to 14/9/1992) | 8 days (10/9/1992 to 17/9/1992) |
| 1995 | 8 days (25/7/1995 to 1/8/1995) | 8 days (26/7/1995 to 2/8/1995) | 14 days (27/7/1995 to 9/8/1995) |
| 1996 | 6 days (20/6/1996 to 25/6/1996) | 10 days (19/6/1996 to 28/6/1996) | 21 days (20/6/1996 to 10/7/1996) |
| 2006 | 5 days (2/9/2006 to 6/9/2006) | 5 days (3/9/2006 to 7/9/2006) | 7 days (3/9/2006 to 9/9/2006) |
| 2010 | 3 days (28/5/2010 to 30/5/2010) | 2 days (29/5/2010 to 30/5/2010) | 4 days (30/5/2010 to 2/6/2010) |
| **Peaks of 2014 Floods:-** | | | |
| GAUGE | 10.579M (34.70 FEET) | 8.994M (29.50 FEET) | 5.588M (18.33 FEET) |
| DISCHARGE | 3262CUMEC (1,15,218 CUSEC) | 2055.316CUMEC (72,585 CUSEC) | 1347.84CUMEC (47,600 CUSECS) |
| DATE/TIME | 1 AM on 6/9/2014 | 2 AM on 8/9/2014 | 5 PM on 8/9/2014 |

- Kashmir is no exception to floods.
- Floods have occurred at regular intervals in the past like 1903, 1905, 1909, 1928, 1948, 1950, 1951, 1953, 1954, 1956, 1957, 1959, 1962, 1963, 1964, 1969, 1972, 1973, 1976, 1986, 1992, 1995, 1996, 2006 and 2014.
- Out of all these floods, the floods of **1903 & 1959** were considered to be the worst of all till **2014.**
- The flood of **2014** is in no doubt the most devastating breaking all the previous records.

Devastating flood of 1903 ( inundated whole valley & Srinagar city remained submerged for two Years


Flood 2014

# Srinagar condition during floods

Existing Safe Carrying capacity (in city) about 36000 cusecs (28000+8000)

## Flood Discharge = 120000 cusecs

**It was like putting 3 buckets of water in 1 bucket**

# Jehlum & It's rising water levels.

The quantity of water passing through the breaches which had occurred on the both side of the site till then.

The quantity of water over flowing the embankments.

The peak discharge

The rising trend of the flood at Ram Munshi Bagh G& D site began to reverse from 4 am to 11 am (7 hours) on 6/9/1014 when the gauge at the site came down from 22.45 feet to 21.70 feet (0.75 feet) respectively.

# RIVER JHELUM

## PRIOR FLOODS




# RIVER JHELUM

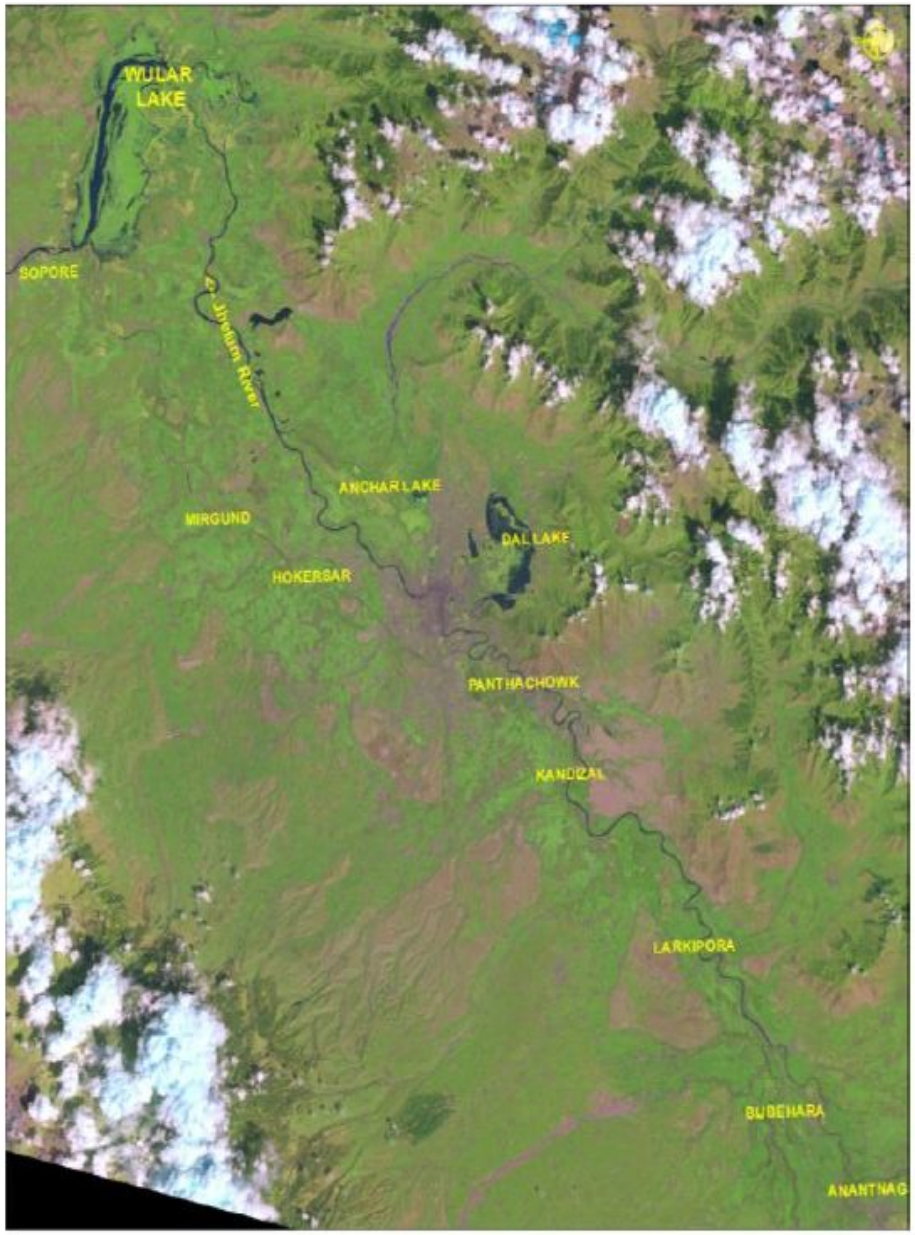
## AFTER FLOODS

# Causes -----Natural

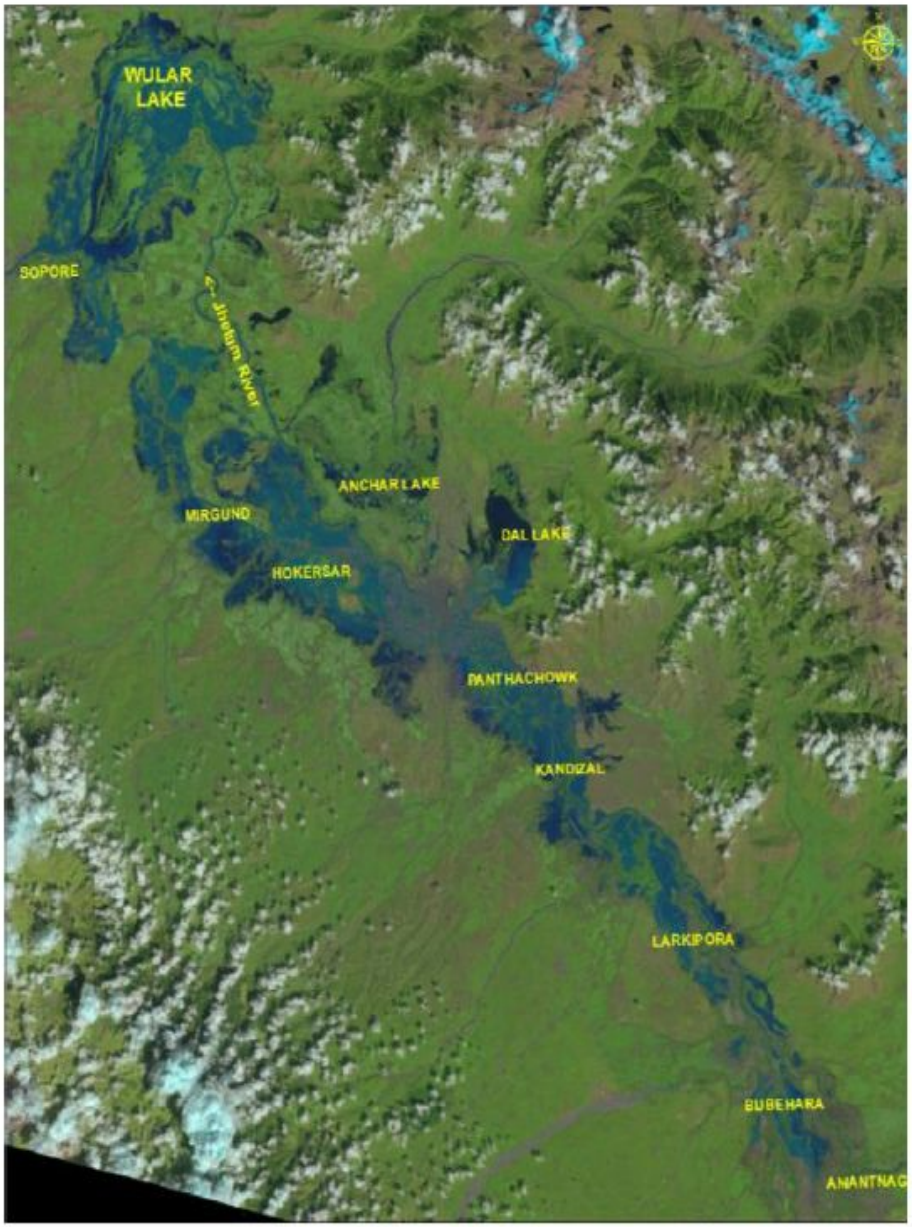
- Precipitation
- Inadequate capacity (within banks)
- Bank erosion and silting
- Land slides
- Poor drainage
- Snow melt and glacial out bursts

# Causes - - - - -Manmade

- Indiscriminate encroachment
- Increasing economic and developmental activities in flood plains
- Lack of regulations
- Inadequate drainage system
- Inadequate maintenance
- Lack of disaster preparedness




**PRE-FLOOD**
**LANDSAT-8 Satellite Image showing**
**Floods as on 25 August, 2014**




**POST-FLOOD**
**LANDSAT-8 Satellite Image showing**
**Floods as on 10 September, 2014**

# Consequences

- **Economic effects**
  - Infrastructure Damage (Public / Private)
  - Livelihood / Employment
  - Tourism & Industry
  - Agriculture & Horticulture
- **Physical and Psychological impact on human life**
- **Social Impact**

  Homelessness, Destitution,Crimes,WCD

# Impact on administration

- Breakdown of Communication –mobile,landline,radio,TV
- Administrative Control lost causing anarchy
- Lack of command & control structure
- Abject shortage of resources at hand to manage the disaster- Boats, Divers, communication systems lost to the deluge
- Govt. offices flooded, rendered inaccessible
- Surface transportation axis lost in many districts
- All major Hospitals lost to floods
- Majority of the PS's /PCR's flooded in Kashmir
- Electricity transmission Shut down-Total blackout
- Water Supply plants lost-Shortage of drinking water


# 6975

**Fully Damaged Houses Pacca ( 4462) , Kacha (222) & Residential Sheds ( 2291)**

Permanently inhabitable & cannot be repaired and must be demolished if it is still standing.

# 13659

**Severely Damaged Houses Pacca ( 12783) & Kacha ( 876)**

Sustained damage that will require significant work to repair, and is unsafe to residents in its current state.

# 49406

**Partially Damaged Houses Pacca ( 48621) & Kacha ( 785)**

Sustained damage makes them uninhabitable, but minor temporary repairs can be made to enable the resident to return & reduces burden on temporary shelter services





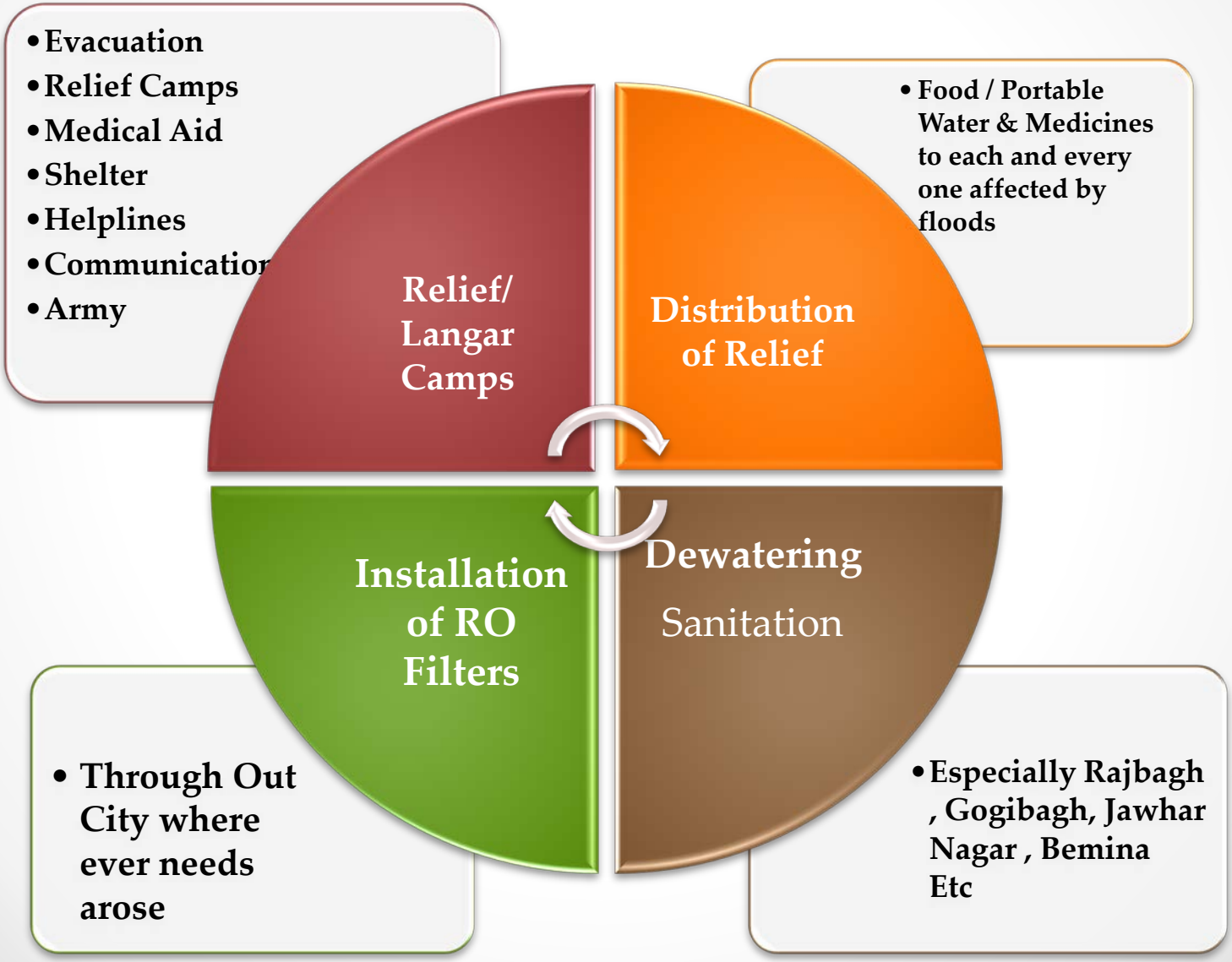




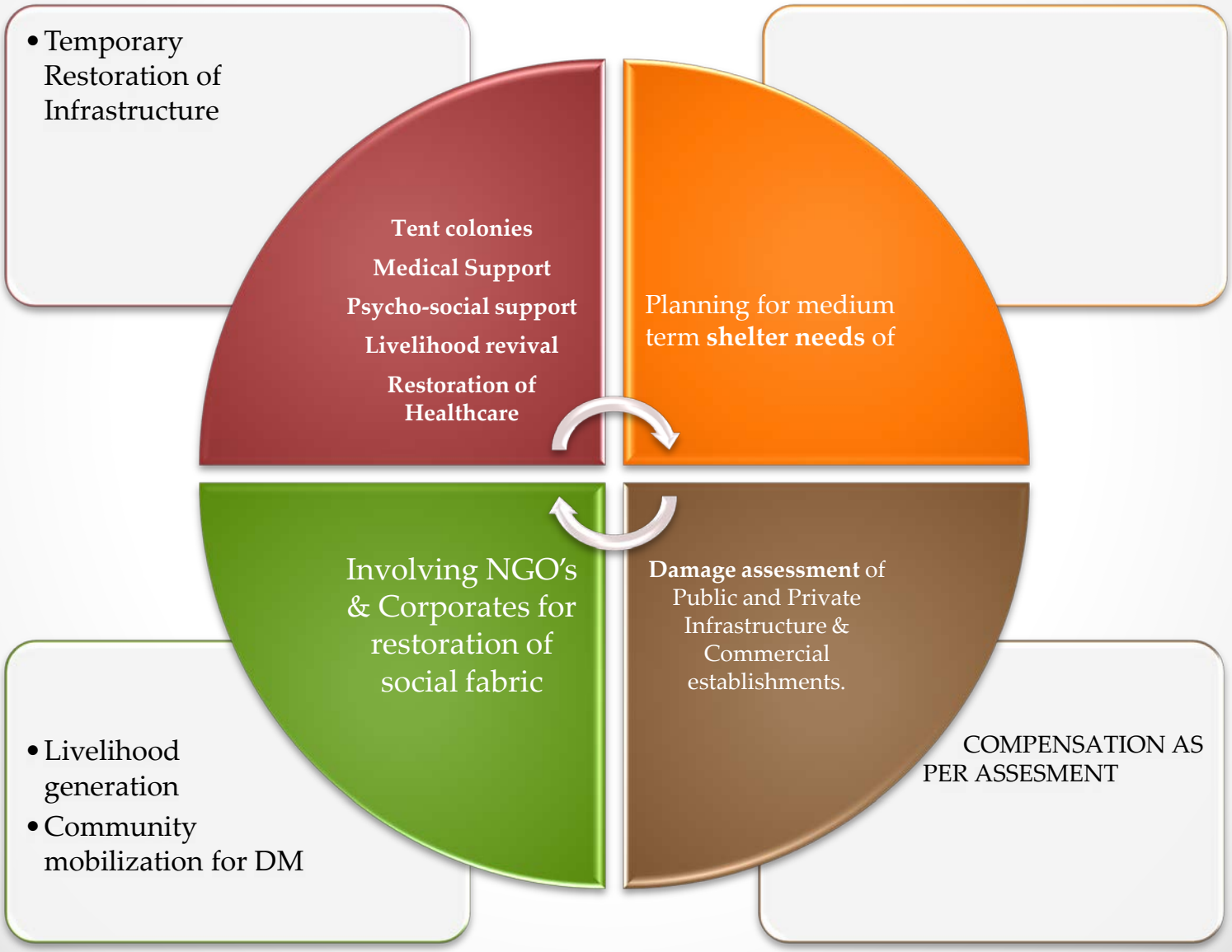

AP


GULISTAN TAILORS
RIPPLE STAR CLOTH HOUSE
MIR PHARMACY
MAX

# IMMEDIATE RELIEF



# SHORT TERM RELIEF



# Learnings as an Administrator

- Need for disaster preparedness- Resources & more units of specially trained SDRF
- Need for planned development to pre-empt Disasters
- Communication is the vital link in any disaster situation
- Chain of command during Disaster Management & Officers with designated AOR's
- Incident Response System and its importance in Disaster Management Incident Response System.pptx
- Emergency Control Rooms with elaborate facilities are critical for managing disaster
- Coordination with Armed Forces / Civil Military Liason
- Role of Armed Forces during Disaster Management
- Role of Civil Society, Civil Defence and NGOs
- Community participation in disaster response—The first responders
- Post Disaster Rehabilitation Phase and its challenges
- From 3R's to 3P's

Best Wishes for a wonderful future

Bon Voyage…