

2026



Preparedness of SDRF Team Punjab for Monsoon Season 2026

Presented by:- Smt. Vatsala Gupta, IPS >>>>

Introduction To SDRF Punjab

1 Specialized 01 team of SAP police personnel (Including 01 DSP & DSP Staff and Admin staff) attached from various police units (PAP, IRB & Commando) who are specially trained in MFR/CSSR & Water Rescue Course. SDRF Team is remain standby 24×7 for Emergent Duty.

2 Operates under Punjab government (SDMA).

3 Works in co-ordination with NDRF and District Administration.

4 Focused on saving lives, minimizing damage and rapid response.

5 SDRF act as Second responders.



CONTENTS

01.

Understanding
Monsoon
Challenges

02.

Resource
Management and
Allocation

03.

Operational
Planning and
Coordination

04.

Capacity Building
and Community
Engagement



PART 01

Understanding Monsoon Challenges





PUNJAB – RAINFALL, RIVER & FLOOD RISK MAP

MONSOON 2026 OUTLOOK



RAINFALL ESTIMATE (JUNE – SEPTEMBER 2026)



HIGH RAINFALL
700 – 900 mm

Pathankot, Gurdaspur, Hoshiarpur, Rupnagar



MODERATE RAINFALL
300 – 450 mm

Amritsar, Tarn Taran, Jalandhar, Kapurthala, SBS Nagar, Ludhiana, Fatehgarh Sahib, Patiala



LOW RAINFALL
150 – 300 mm

Bathinda, Mansa, Muktsar, Fazilka, Faridkot, Barnala, Sangrur

FLOOD RISK LEVEL



VERY HIGH RISK
(Flash Flood / River Flood)
Areas along Ravi, Beas & Sutlej and downstream districts



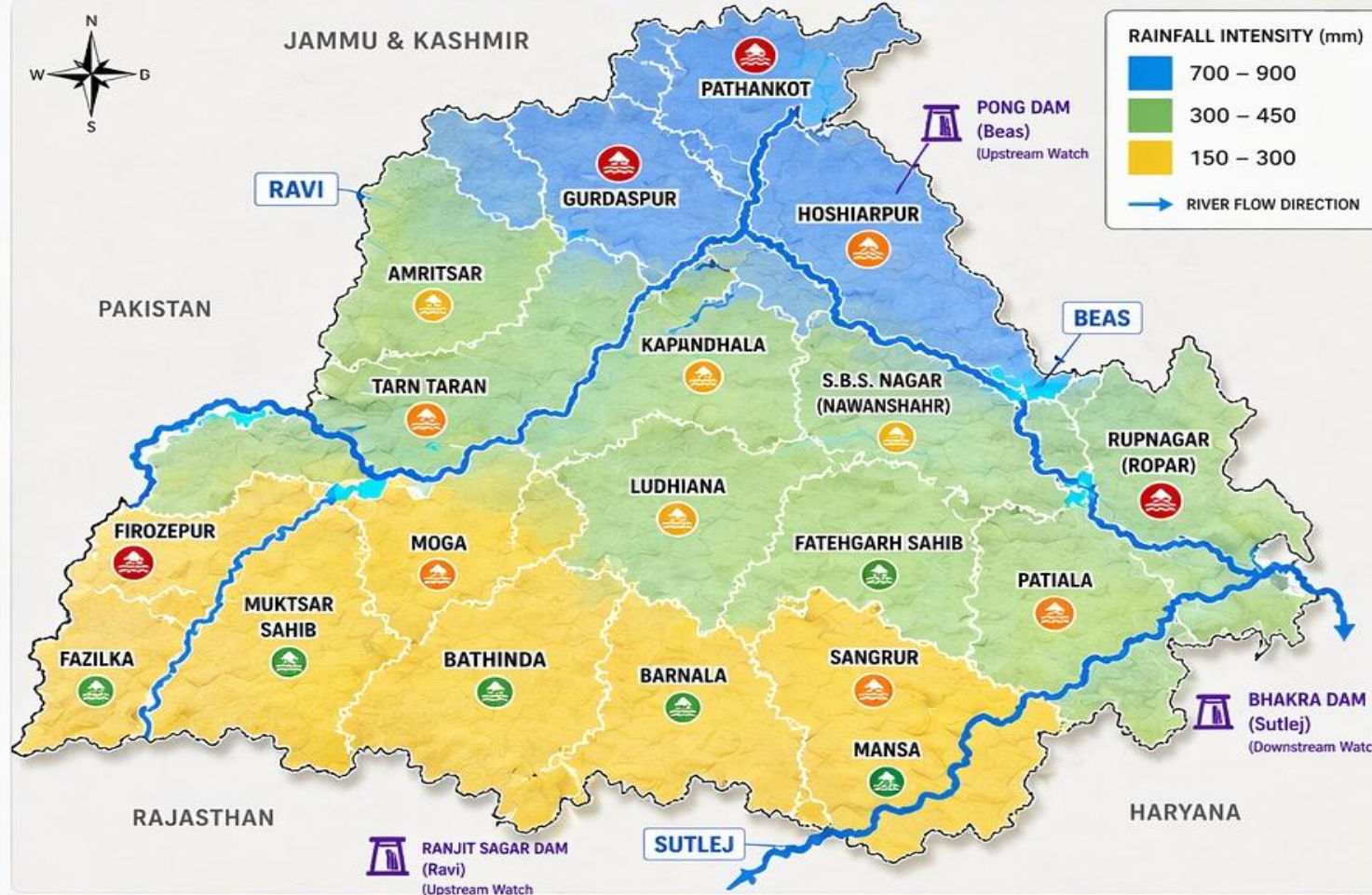
HIGH RISK
(River Overflow / Inundation)
Low lying & river belt areas



MODERATE RISK
(Waterlogging / Poor Drainage)
Urban & agricultural pockets



LOW RISK
(Generally Safe)
Higher elevation / well drained areas



RAINFALL INTENSITY (mm)

- 700 – 900
- 300 – 450
- 150 – 300

→ RIVER FLOW DIRECTION

MAJOR RIVERS

- RAVI**
Flows along Gurdaspur, Amritsar, Tarn Taran, Ferozepur
Key Risk: Flash Floods, Cross Border Inflow
- BEAS**
Flows along Hoshiarpur, Kapurthala, Rupnagar, SBS Nagar
Key Risk: Dam Release, River Overflow
- SUTLEJ**
Forms southern boundary of Punjab, affects Fazilka, Ferozepur, Muktsar, Bathinda, Mansa
Key Risk: Inundation, Backwater Effect

FLOOD RISK HOTSPOTS

- Gurdaspur – Pathankot – Hoshiarpur (Flash Flood Risk)
- Rupnagar – SBS Nagar – Ludhiana (River Overflow Risk)
- Ferozepur – Fazilka – Muktsar (Downstream / Backwater Risk)
- Low lying areas of Bathinda, Mansa, Sangrur (Waterlogging Risk)

KEY TAKEAWAYS

- North Punjab receives highest rainfall and faces flash flood threat.
- Central Punjab – River overflow & urban flooding risk.
- South Punjab – Waterlogging due to poor drainage & heavy local rainfall.
- 2026 Outlook: Below normal rainfall but intense short duration events likely.

LEGEND

- International Boundary
- State Boundary
- District Boundary
- ~ Major River
- 🏰 Major Dam
- 🔴 Very High Risk
- 🟠 High Risk
- 🟡 Moderate Risk
- 🟢 Low Risk

SDRF OPERATIONAL PRIORITIES

- Enhanced Surveillance in High & Very High Risk Districts
- Early Warning & Community Alert System
- Pre-position Boats, Rescue Teams & Equipment
- Strengthen Relief Camps, Medical & Essential Supplies
- Coordination with District Admin, Irrigation, Police, BBMB & Army

Flood & Land Vulnerabilities in Punjab



Flood and land vulnerability in Punjab (India) is a major environmental and disaster-management issue. It arises from a combination of natural geography, climate change, and human activities.

Flood Vulnerabilities:-

- Geographical Factors (Natural Vulnerability)
- Climatic Factor
- River & Dam Management Issue
- Weak Flood Protection Infrastructure (Dhussi Bunds)
- Human-Induced Causes



Land Vulnerabilities:-

- Soil Degradation Due to Floods
- Agricultural Vulnerability
- Water Logging & Salinity
- Groundwater & Land Use Issues

Act Before Flood Peak (Golden Window)

Flood surge reaches Punjab hours after upstream rainfall/dam release.

Lesson: Pre-deploy teams before water arrives
Do not wait for ground flooding reports.



PUNJAB FLOODS 2025 – OVERVIEW



TIMELINE

August – September 2025
(peak monsoon period)



NATURE OF DISASTER

One of the worst floods in Punjab since **1988**



MAIN CAUSES

- Heavy rainfall in Himachal Pradesh & J&K catchment
- Sudden release of water from Bhakra, Pong & Ranjit Sagar dams
- Overflow of Sutlej, Beas & Ravi rivers



WORST AFFECTED AREAS

📍 Gurdaspur, Amritsar, Ferozepur, Fazilka, Pathankot, Tarn Taran and surrounding areas



SCALE OF IMPACT



1400+
VILLAGES
AFFECTED



~35 LAKH
PEOPLE
IMPACTED



3.8 LAKH
PEOPLE
DISPLACED



50+
DEATHS
REPORTED

MAJOR RIVERS AFFECTED

- 🌊 SUTLEJ
- 🌊 BEAS
- 🌊 RAVI



KEY FEATURES



RIVER FLOODING
& DAM RELEASE
IMPACT



URBAN FLOODING
IN SOME CITIES



LARGE-SCALE CROP
DAMAGE



DAMAGE TO ROADS,
BRIDGES & INFRASTRUCTURE



DISRUPTION OF POWER,
WATER SUPPLY &
COMMUNICATION



SDRF COMMITMENT: SAVE LIVES – REDUCE SUFFERING – BUILD RESILIENCE



PUNJAB FLOODS 2025 – RESPONSE & GAPS

AUGUST – SEPTEMBER 2025



RESPONSE – KEY ACTIONS



MULTI-AGENCY DEPLOYMENT

SDRF, NDRF, Army, BSF, Punjab Police, Fire Services, Health & Revenue teams deployed.



SEARCH & RESCUE OPERATIONS

- 20,000+ people rescued and evacuated.
- Boats, drones and helicopters used.



RELIEF CAMPS & AID

- 100+ relief camps set up.
- Food, water, medical aid and essential supplies provided.



HEALTH & MEDICAL RESPONSE

- Mobile medical teams deployed.
- Disease surveillance and health camps in affected areas.



DAMAGE ASSESSMENT & SUPPORT

- Special Girdawari initiated.
- Compensation and ex-gratia announced for affected families.



COMMUNICATION & AWARENESS

- Public advisories, alerts and community announcements through multiple channels.

GAPS / CHALLENGES



EARLY WARNING & DISSEMINATION

Delay in forecasting & alerts from upstream catchments; last-mile alert delivery needs improvement.



INFRASTRUCTURE VULNERABILITIES

Weak/damaged embankments (Dhussi bundhs); inadequate drainage & encroachment of floodplains.



EVACUATION & SHELTER MANAGEMENT

Evacuation delays in some rural pockets; overcrowding and limited facilities in relief camps.



CONNECTIVITY & LOGISTICS

Roads, bridges & culverts damaged; logistics constraints in remote & cut-off areas.



HEALTH & WASH CONCERNS

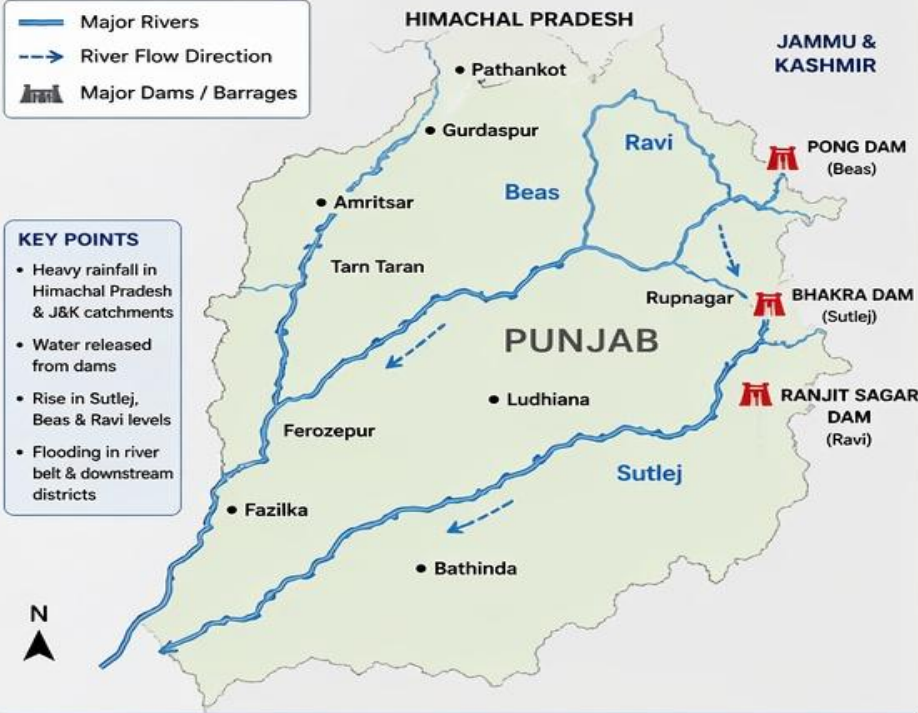
Risk of water-borne diseases after floods; shortage of sanitation facilities in some camps.



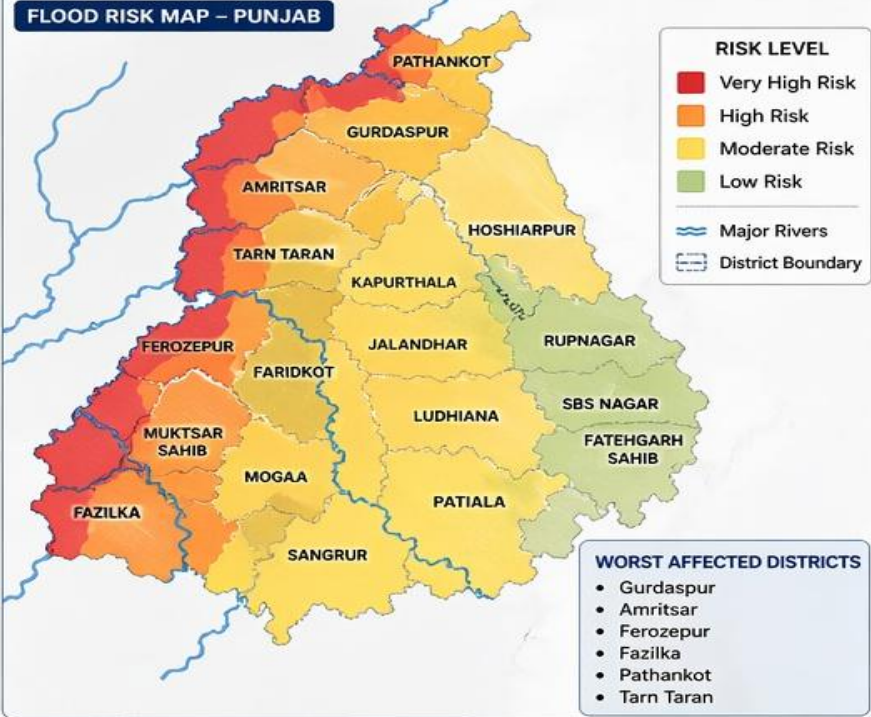
COORDINATION & INFORMATION SHARING

Need for real-time data sharing between departments; unified command & resource tracking system required.

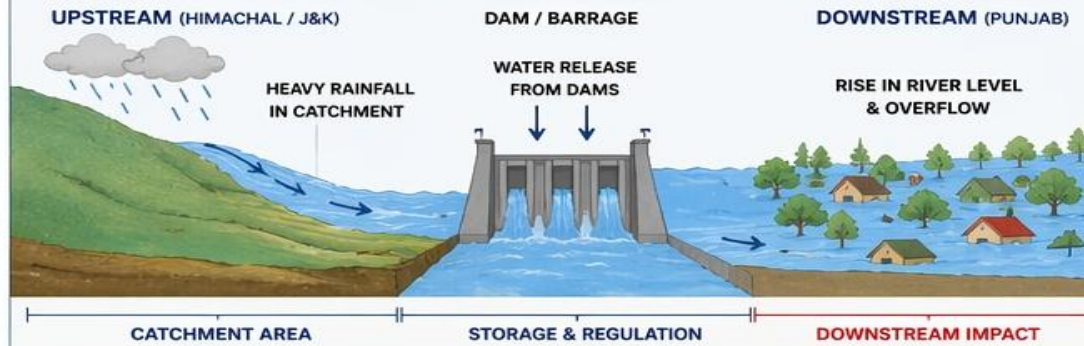
RIVER SYSTEM & FLOW DIRECTION



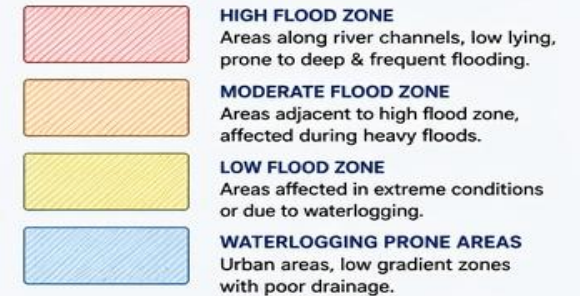
FLOOD RISK & AFFECTED ZONES



TYPICAL FLOOD SCENARIO – RIVER FLOW & INUNDATION



LEGEND – FLOOD ZONES



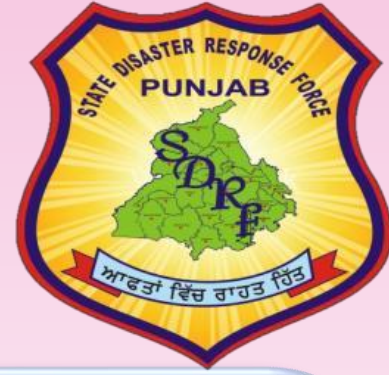
KEY TAKEAWAY:

Strengthen early warning, embankments, drainage, inter-agency coordination & community preparedness to build a flood resilient Punjab.



SDRF COMMITMENT

SAVE LIVES – REDUCE SUFFERING – BUILD RESILIENCE



PART 02

Resource Management and Allocation



Inventory and Equipment Readiness



Inflatable Boat with OBM



Scuba Set



Life Jacket



Life buoy

| FLOOD RESCUE EQUIPMENTS/ ITEMS | | | |
|--------------------------------|--|-----------|----------|
| | Name of Equipments | Qty. | |
| 1. | Inflatable boat with Yamaha OBM Engine 25 HP (Two Stroke) | 01 Nos | TOTAL=06 |
| 2. | Inflatable motor boats with OBM (8-10 seater) Yamaha 25 Hp 4 stroke | 02 Nos | |
| 3. | Inflatable motor boats with OBM (8-10 seater) Mercury 25 Hp 4 stroke | 03 Nos | |
| 4. | Under Water communication system with wire | 02 Nos | |
| 5. | Scuba set | 02 Nos | |
| 6. | Life Buoys | 90 Pcs | |
| 7. | Life Jackets | 337 Pcs | |
| 8. | Water Bottles | 64 Pcs | |
| 9. | Rain Coat | 71 Pcs | |
| 10 | Rain Gum Boot | 120 Pairs | |

Manpower Planning

- At present, one team comprising 41 personnel of SDRF Punjab.
- 545 Home Guards have been further approved to perform disaster related duties.
- Various divers have been enlisted as volunteers to perform rescue operation with SDRF as and when needed.
- Several resource persons and guides have been enlisted area wise for local KNOW HOW's

Regular Training and Skill Upgradation

- Training programs conducted throughout the year, often in collaboration with NDRF.
- Focus on enhancing operational efficiency and disaster response capabilities.

Specialized Training Modules

- Water rescue and flood rescue operations
- Medical first aid and CPR
- Earthquake search and rescue techniques

Continuous Practice and Drills

- Regular mock drills to reduce response time and improve operational readiness.
- Aim to minimize damage and ensure swift action during emergencies..





PART 03

Operational Planning and Coordination



Early Warning Systems



2025 showed delays in alerts reaching villages

Lesson:

Integrate IMD + BBMB + District Control Rooms

Weather Monitoring Tools

Utilizing advanced meteorological data and technology to provide timely alerts for potential weather-related hazards Like. Sachet App



Community Alert Mechanisms

NDMA Sachet App–Official Disaster alerts from Government

WhatsApp Groups – District → Block → Village Chain

Social Media Alerts–Twitter, Facebook for real-time updates

Location-based Alerts – GPS-triggered warnings in risk zones

Coordination with Agencies



01 SDMA and DDMA



02 Health Department



03 Fire Services



04 Home Guard & Civil Defence



05 NGOs and Volunteers



06 NDRF



PART 04

Capacity Building and Community Engagement



Training and Drills

Simulation Exercises



285 flood-related training exercises conducted by SDRF across Punjab.



Skill Enhancement

SDRF Team conducted 03 Flood related training programme in District Ropar, Moga & Amritsar and 396 volunteer Trained under Aapda Mitra Scheme.



Public Awareness Campaigns

Safety Guidelines Dissemination

95 Lecture-Cum-Demo/Awareness Programmes conducted by SDRF across Punjab to educate the public on risk prevention and response.



Community Participation Initiatives

396 volunteer Trained under Aapda Mitra Scheme.
12,012 volunteer Trained through Lecture-Cum Demo/Awareness Programmes conducted by SDRF across Punjab.





Key Take Away and Action Points Ahead



Despite large-scale efforts by multiple agencies, the floods of 2025 exposed critical challenges. **Strengthening preparedness, coordination and infrastructure is essential to reduce future risks.**

RESPONSE



MULTI-AGENCY DEPLOYMENT

- SDRF, NDRF, Army, BSF, Punjab Police, Fire Services,
- Health & Revenue teams deployed.



SEARCH & RESCUE OPERATIONS

- 20,000+ people rescued and evacuated.
- Use of boats, drones, and helicopters in high-risk areas.



RELIEF CAMPS & HUMANITARIAN AID

- 100+ relief camps set up.
- Food, water, medical aid, and essential supplies provided.



MEDICAL & HEALTH RESPONSE

- Mobile medical teams deployed.
- Disease surveillance and health camps in flood-affected areas.



DAMAGE ASSESSMENT & SUPPORT

- Special Girdawari initiated.
- Compensation and ex-gratia announced for affected families.



COMMUNICATION & AWARENESS

- Public advisories, alerts and community announcements through multiple channels.



RESCUE OPERATIONS



RELIEF CAMPS



AIR SUPPORT



RELIEF DISTRIBUTION

GAPS / CHALLENGES



EARLY WARNING & DISSEMINATION

- Delay in forecasting and alerts from upstream catchments.
- Last-mile alert delivery to villages needs improvement.



INFRASTRUCTURE VULNERABILITIES

- Weak/damaged embankments (Dhussi bundhs).
- Inadequate drainage and encroachment of floodplains.



EVACUATION & SHELTER MANAGEMENT

- Evacuation delays in some rural pockets.
- Overcrowding and limited facilities in relief camps.



CONNECTIVITY & LOGISTICS

- Roads, bridges and culverts damaged.
- Logistics constraints in remote and cut-off areas.



HEALTH & WASH CONCERNS

- Risk of water-borne diseases after floods.
- Shortage of sanitation facilities in some camps.



COORDINATION & INFORMATION SHARING

- Need for real-time data sharing between departments.
- Unified command and resource tracking system required.



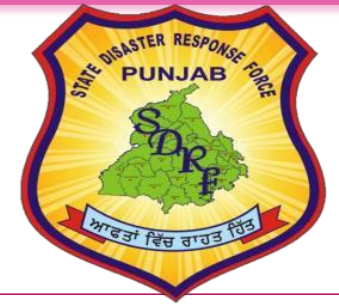
KEY TAKEAWAY

The 2025 floods highlight the need for stronger forecasting, infrastructure strengthening, community preparedness and real-time coordination to build a more disaster-resilient Punjab.



SDRF COMMITMENT
SAVE LIVES – REDUCE SUFFERING
BUILD RESILIENCE

2026



Thanks