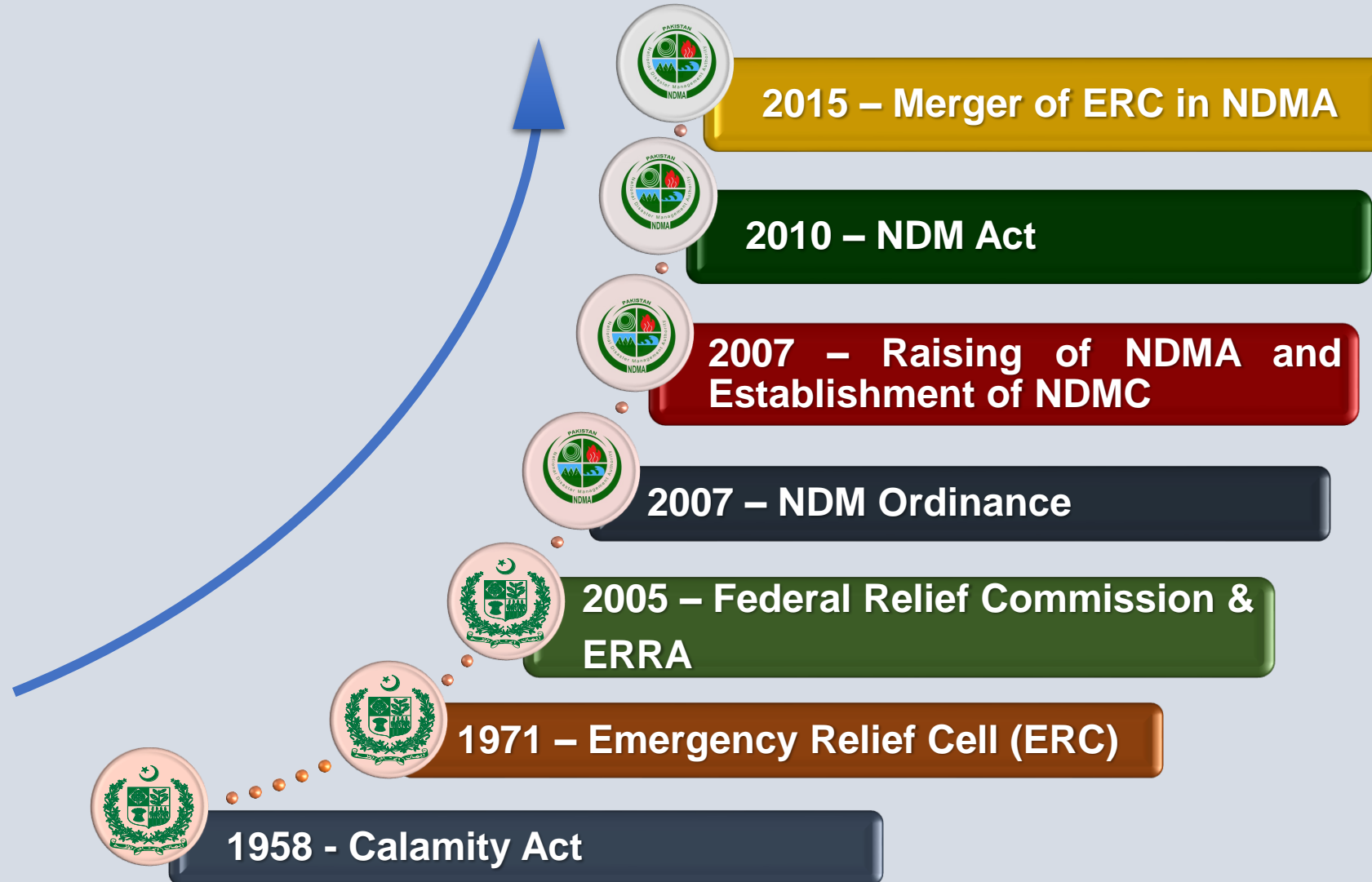
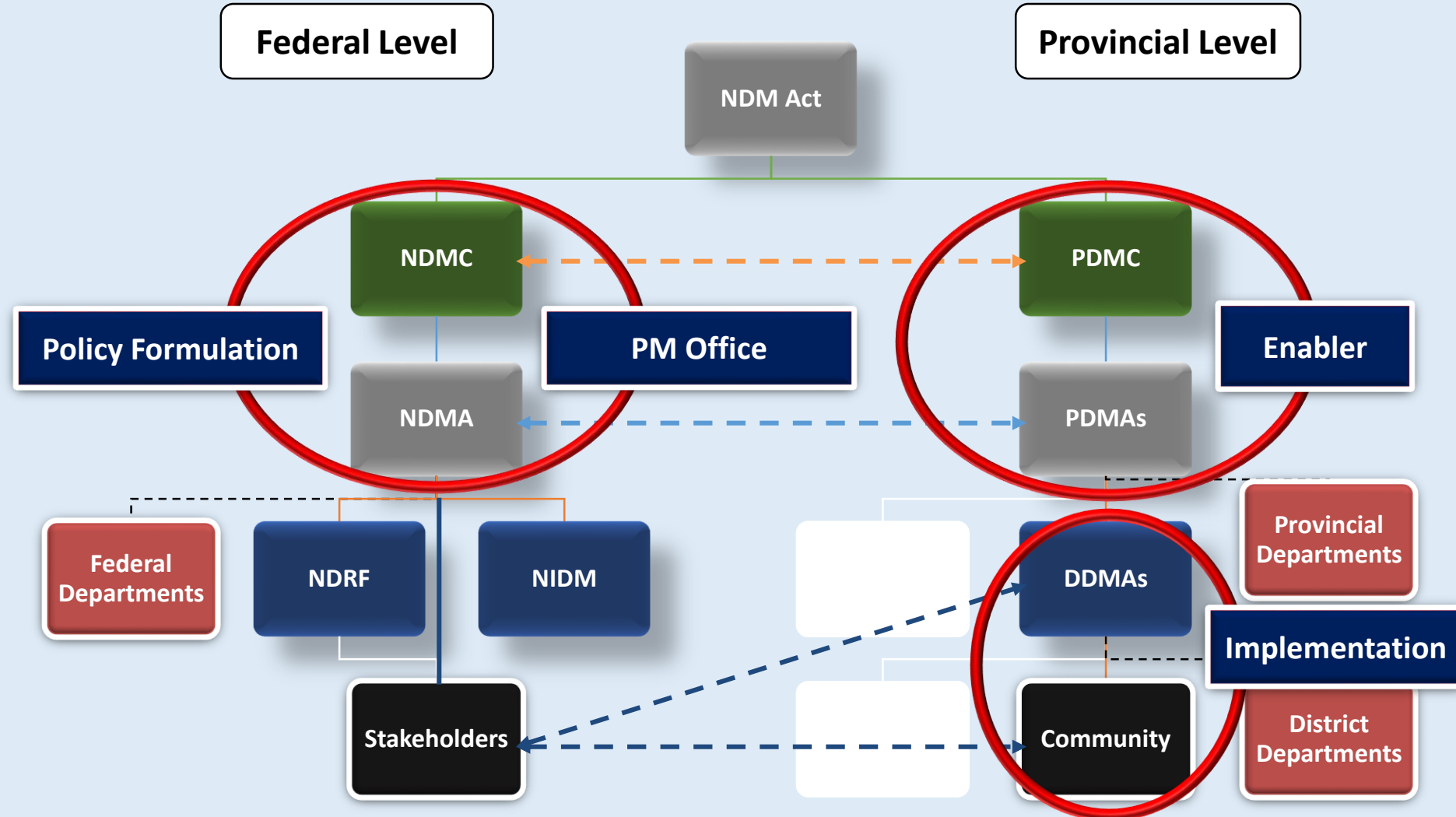


Evolution of Disaster Management System



Disaster Management Structure as per NDM Act





Emergency Operations Centres



- Disaster Management Authorities in Pakistan have established a number of Emergency Operations Centre.
- At Federal Level, there is the National Emergency Operations Centre (NEOC), Provincially, all the Provinces / Regions have established Provincial Emergency Operations Centres (PEOC) and at District level, there are District Emergency Operations Centres (DEOC)

Functioning of NEOC

- Analyse situation based upon **severity of the disaster**, initial damages / losses in coordination with concerned PDMA and activate NEOC on 24/7 basis
- Liaison for **information management** with:-

Federal Government	Provincial Government	Non Government
Prime Minister's Office (PMO)	Chief Secretaries	United Nations Agencies
Ministry of Climate Change (MoCC)	Provincial Disaster Management Authorities (PDMAs)	International Committee of the Red Cross (ICRC)
Ministry of Interior (MoI)	District Disaster Management Authorities (DDMAs)	Pakistan Red Crescent Society (PRCS)
Pakistan Meteorological Department (PMD)	Commissioners / Deputy Commissioners	Foreign Missions
Federal Flood Commission (FFC)	Rescue Services	Donor Agencies
Space and Upper Atmosphere Commission (SUPARCO)	Civil Defence	
Indus River System Authority (IRSA)	Irrigation Departments	
Pakistan Armed Forces	Police Services	

Functioning of NEOC



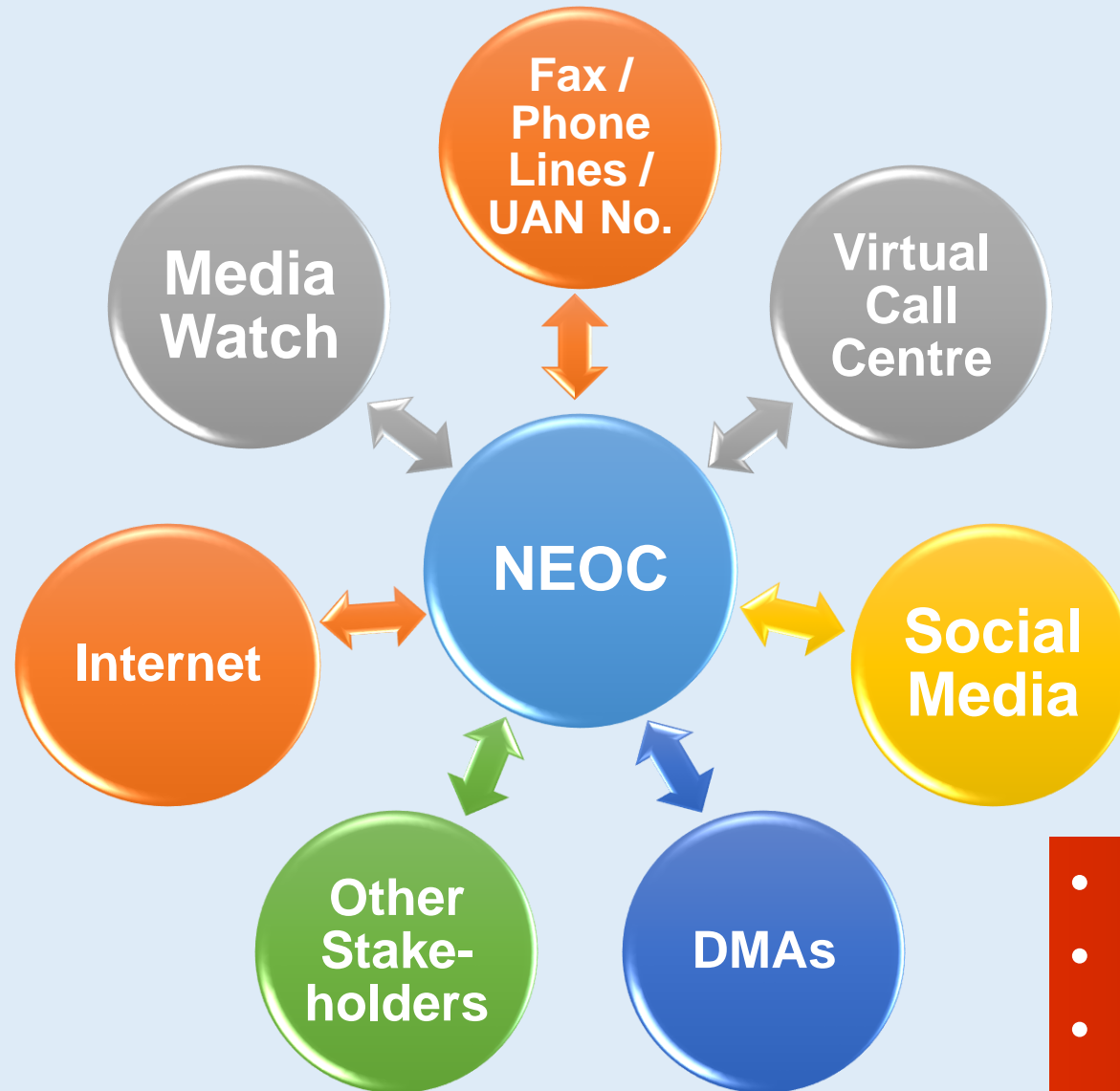
- Constant watch over **Media**
- Regular monitoring of **PMD Website** for any advisories / alerts
- **Advisory / Alert** issued to relevant stakeholders
- In case any damages / disaster are reported, concerned PDMAs is asked to initiate **Occurrence Report** followed by SITREP on given timelines as per SITREP SOPs
- After compilation of initial reports from PDMAs, NDMA issues SITREP to relevant stakeholders for information
- Compilation of **data & log book**

Functioning of NEOC



- Putting relevant stakeholders on alert especially **Armed Forces & USAR Teams**
- **SMS Alerts** (Roman Urdu) are generated in affected areas in coordination with concerned PDMA, PMD and PTA
- Before initiating any response, the lead taken from electronic / social media is referred to concerned PDMA / DDMA for **validation**
- **Preparation of brief** for high dignitaries

Flow of Information



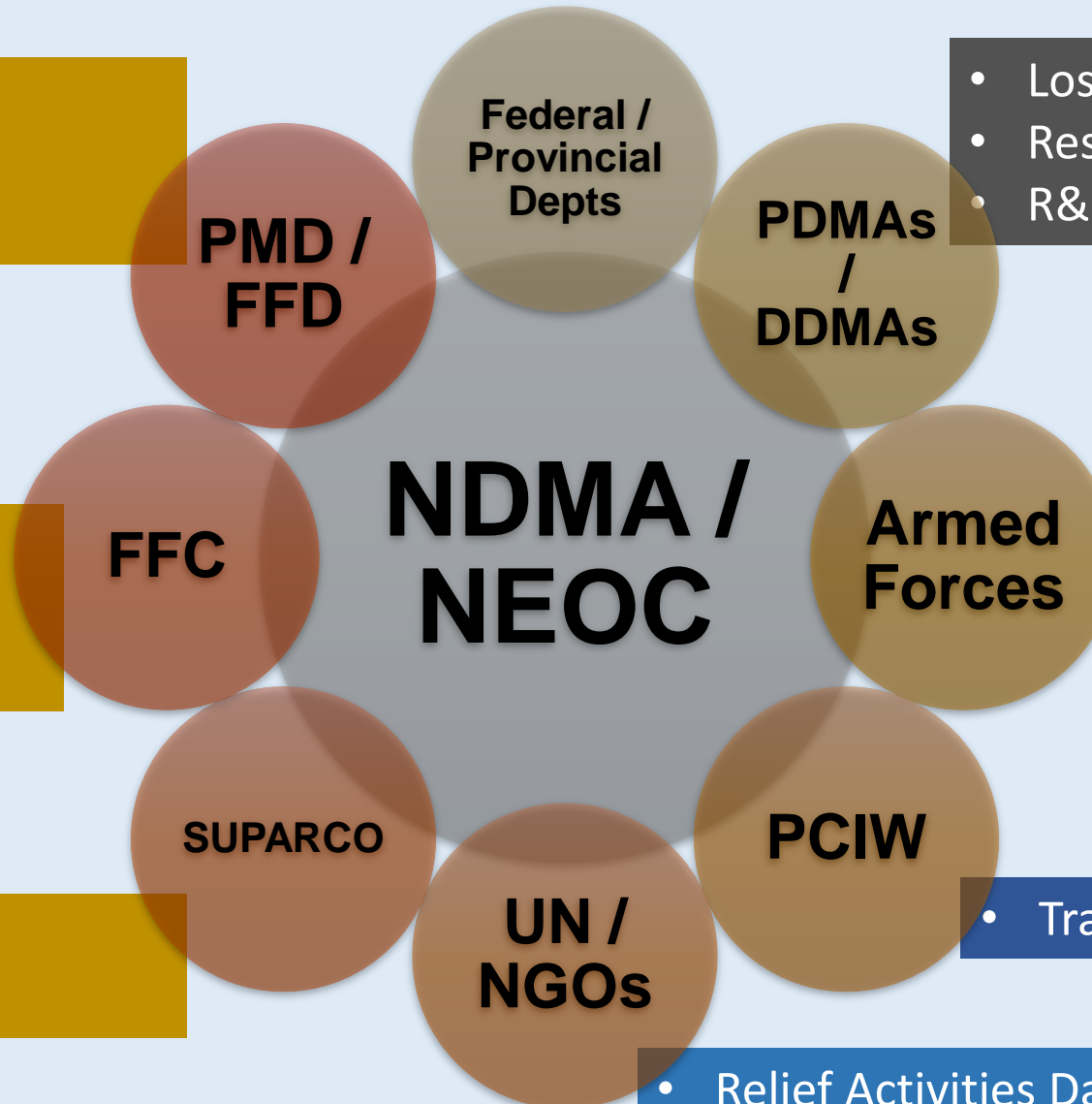
- Initial Incident Reports
- Daily Situation Reports
- Weekly Reports
- Post Disaster Reports

Sharing of Information

- Weather Forecasting
- Flood Forecasting
- Seismology

- River Flow Data
- Canal Flow Data
- Dams Data

- Satellite Imagery
- Imagery Analysis



- Losses / Damages Data
- Rescue / Relief Data
- R&R Efforts

- Losses / Damages Data
- Rescue & Relief Activities

- Transboundary Water Flow Data

- Relief Activities Data



Disasters Handled by NDMA



Disasters	Losses & Damages		
	Deaths	Injuries	Houses Damaged
Cyclone Yemyin (2007)	443	-	71,486
Floods (2008)	80	21	17,172
Ziarat Earthquake (2008)	164	173	9,761
Super Floods (2010)	1,985	2,946	1,602,765
Floods (2011)	520	1,180	1,604,406
Floods (2012)	571	2,902	636,438
Mashkel Earthquake (2013)	14	52	2,000
Floods (2013)	333	173	79,943
Awaran Earthquake (2013)	386	816	46,756
Floods (2014)	367	673	107,102
KP Tornado (2014)	49	267	-
Floods (2015)	238	232	10,716
KP Earthquake (2015)	272	856	96,152
Pre-Monsoon Heavy Rains (2016)	271	279	2,929
Floods (2016)	153	113	1,452
Floods (2017)	271	359	996



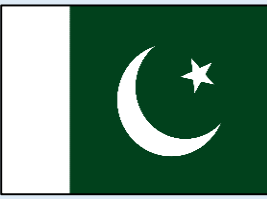
Disasters Handled by NDMA

Disasters	Major Relief Provided			
	Tents	Blankets	Mosquito Nets	Plastic Mats
Cyclone Yemyin (2007)	94,466	60,600	-	-
Floods (2008)	11,200	10,000	-	49,000
Ziarat Earthquake (2008)	23,660	216,969	-	20,836
Super Floods (2010)	488,782	1,915,058	290,262	128,892
Floods (2011)	315,240	41,950	-	-
Floods (2012)	132,892	130,154	-	-
Mashkel Earthquake (2013)	4,492	800	2,000	-
Floods (2013)	57,884	17,187	31,250	-
Awaran Earthquake (2013)	48,272	92,849	23,200	50,736
Floods (2014)	95,395	27,290	23,900	12,640
KP Tornado (2014)	8	100	630	354
Floods (2015)	133,421	10,197	-	29,907
KP Earthquake (2015)	47,054	80,088	-	12,094
Pre-Monsoon Heavy Rains (2016)	3,927	8,160	-	2,188
Floods (2016)	2,596	2,232	650	2,010
Floods (2017)	15,633	3,948	7,391	10,440

Foreign Relief Provided



Overseas Relief Assistance by NDMA



Nepal Earthquake - 2015



Afghanistan Avalanche - 2015



Afghanistan (Kunduz Insurgency) - 2015



Sri Lanka Floods - 2016

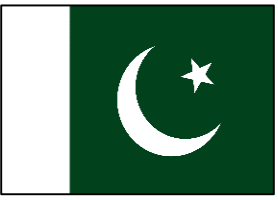


Tajikistan Earthquake - 2016



Iran Earthquake - 2017





MIRA Mobile Application

- **Easy to install and User friendly (Updating version)**
- **Better approach then paper based**
 - **Picture capture**
 - **Audio record**
- **Less Margin of error**
- **Compete form check**
 - **Percentage calculation check**

- **Works under limited data connectivity**
 - Data uploading even with no network
- **Auto transfer of data to the server**
- **Data filtered by ATT (Assessment Technical Team)**
- **Compete form check**
 - Percentage calculation check
- **Send to AWG (Assessment Working Group)**
- **All 8 sectors installed**

- **Developed for Android so far only**
- **Live demo**