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# Mosul Dam Emergency Preparedness in Iraq



# Overview

- A. Project Introduction
- B. Project activities and progress
- C. Lessons learnt



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# A- Project Introduction

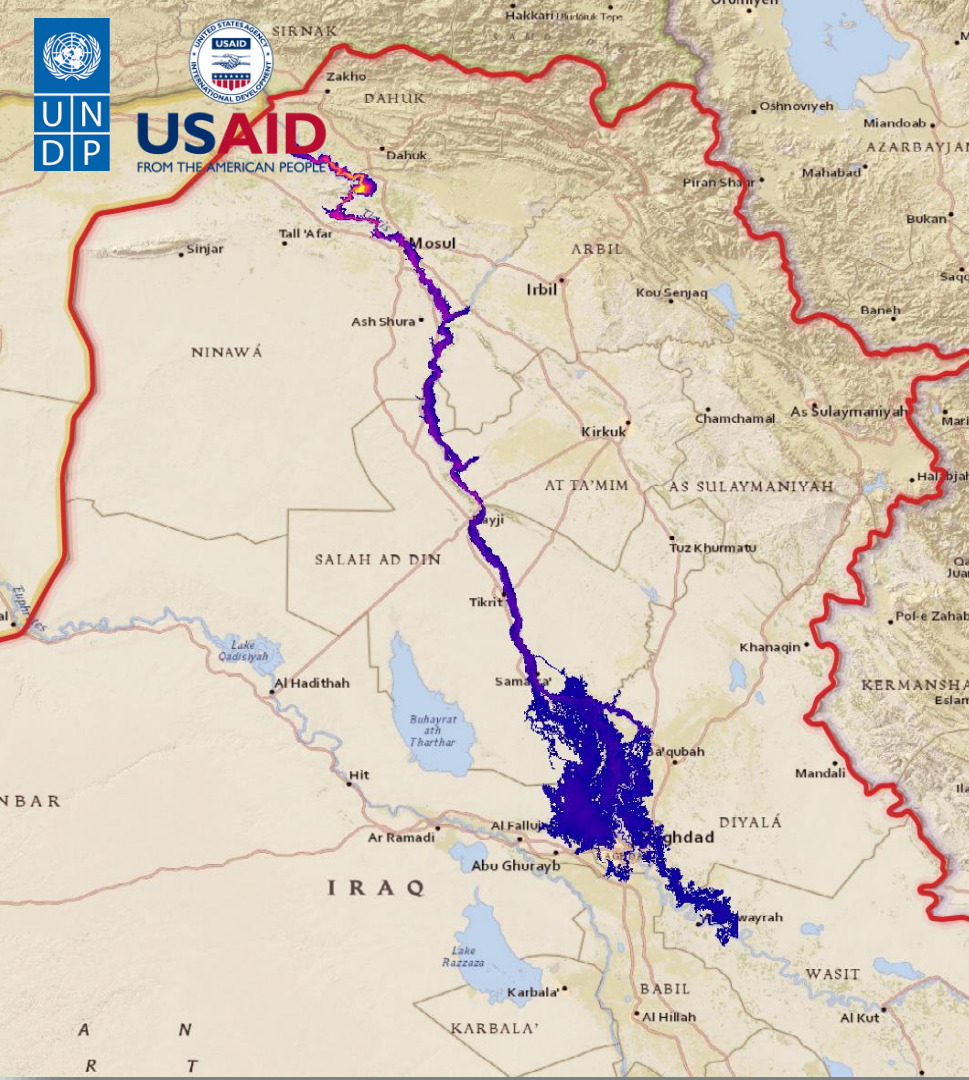


# MDEP Project Basic Information

<b>Project Title</b>	Mosul Dam Emergency Preparedness in IRAQ
<b>Project Period</b>	March 2019 – October 2021
<b>Donor</b>	<b>USAID</b>   Bureau for Humanitarian Assistance (BHA)
<b>Focal Point</b>	Prime Minister's National Operations Center (PMNOC)
<b>Main Objective</b>	Safeguarding the lives of vulnerable populations and major installations/ facilities along the Tigris flood path through provisioning technical assistance to the Government of Iraq (GoI).



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# Project Locations



- Ninewa Governorate
- Salahuddin Governorate
- Baghdad Governorate



# MDEP Project Counterparts & Partners

## National

- PMNOC
- MoWR, MoHEnv, CD/MoI
- KR (3/5/6/7)

## Governorate

- Governor's Office  
(Ninewa/Baghdad/Salahuddin)
- DoH, DoEd, DoWR, DoEnv, CD
- KR (1/2/3/4/7)

## Community

- Local communities
- KR (2/4/7)

## Responsible Partners

UNICEF  
WHO  
IRCS

# MDEP Key Results



#1 Deploy training and tools to operationalize the Gov. preparedness plans



#2 Risks advocacy for the vulnerable communities (IRCS, WHO, UNICEF)



#3 Simulations /drills conducted (WHO, UNICEF)



#4 Volunteers network for community EW and evacuation (IRCS)



#5 Emergency preparedness of major Dams strengthened



#6 Major facilities protected along the Tigris flood plain



#7 Environmental risks of toxic and chemical pollution mitigated



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# B- Project Activities and Progress

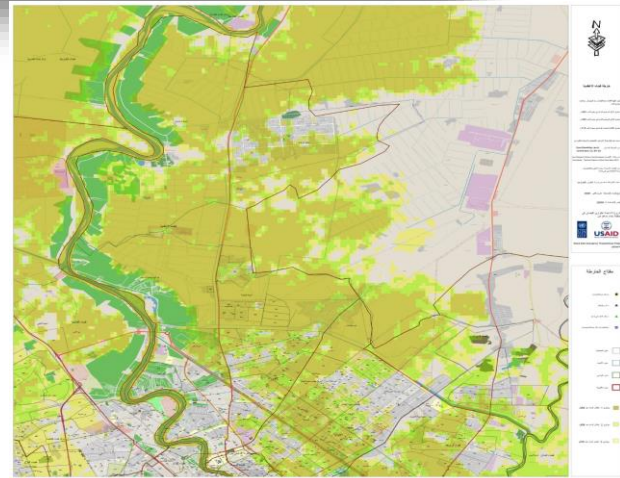




# Flood Preparedness & Response Plans



Key Result 1	Indicators	Results Achieved
<b>Rapid deployment of preparedness training and tools to operationalize the Governorate preparedness plans</b>	Training of local and emergency officials on response and preparedness	204 officials
	Training of governorate officials in multi-hazard early warning	107 officials
	Training to operationalize local preparedness plans	78 officials
	Activation of civil defense management committees	47 committees





# Community Flood Risk Awareness



Key Result 2	Indicators	Results Achieved
<b>Risks advocacy for the vulnerable communities expanded and strengthened/WHO</b>	Analysis of risk perceptions.	
	Persons targeted in at-risk communities through risk awareness messages along the Tigris	261,289
	Messages disseminated to at-risk communities through various media and social media platforms	- 4 million SMSs 3,680,176 Facebook, Instagram & Twitter - 4 Short videos



# Community Flood Risk Awareness



Key Result 2	Indicators	Results Achieved
	Capacity building of hospitals for emergency preparedness.	<ul style="list-style-type: none"> <li>- 211 nurses &amp; paramedics</li> <li>- 117 doctors</li> <li>- Equipment to ERTC Baghdad</li> <li>- 59,000 Community awareness</li> </ul>
	School preparedness and awareness	<ul style="list-style-type: none"> <li>- Upgrade works in 78 schools as evacuation centers</li> <li>- Teachers' training</li> <li>- Student awareness</li> </ul>

# Community Flood Risk Awareness



Governorate	Events	Beneficiaries	Females	Males	Folders	Posters	Guides
Baghdad	3060	78650	25,164	53,486	77891	7474	194
Ninewa	4440	89984	31,070	58,914	89984	7496	296
Salah Al-Din	2460	53414	13,605	39,809	53414	6850	164
Diyala	900	40000	14,754	25,246	40000	3000	150
<b>Total</b>	<b>10860</b>	<b>262048</b>	<b>84,593</b>	<b>45,177</b> <b>5</b>	<b>261289</b>	<b>24820</b>	<b>804</b>

# Emergency Response Drills



Key Result 3	Indicators	Results Achieved
<p><b>Simulations/drills conducted to ensure readiness and strengthen emergency preparedness at all levels (WHO, UNICEF, UNDP)</b></p>	National level drills	2 national drills
	Governorate level drills	6 drills
	School-based drills	100 drills
	Hospital-based drills	1 drill



# Emergency Response Drills





# Community volunteers network



Key Result 4	Indicators	Results Achieved
<b>Volunteers network strengthened for community EW and evacuation</b>	Community volunteers recruited and trained for Community Early Warning and Evacuation	<ul style="list-style-type: none"><li>- 200 volunteers trained</li><li>- Community level early warning network setup by volunteers</li></ul>





# Community volunteers network



# Dam Safety Measures



Key Result 5	Indicators	Results Achieved
<b>Emergency preparedness and safety measures of major Dams strengthened</b>	Dam managers and staff trained in emergency preparedness and safety of dams.	124 officials trained
	Dam Safety guidelines developed	1 set of guidelines
	Dam operational plans developed	Operational plans developed for Mosul, Darbandikhan, Dukan, Haditha Dams.



# Dam Safety Measures





# Protection of Critical Facilities



Key Result 6	Indicators	Results Achieved
<b>Major facilities protected along the Tigris flood plain to avoid domino impacts</b>	Contingency plans/business continuity Plans prepared for the Critical Infrastructure Facilities	Contingency plans prepared for 10 facilities



# Critical Infrastructure Protection



	Facility	Location /District	Governorate
1	Al-Doura oil Refinery (Midland Refinery Company)	Al-Doura	Baghdad
2	Al-Doura Thermal Power Plant,	Al-Doura	Baghdad
3	Al-Karkh Water Treatment Plant,	Al-Taji	Baghdad
4	Battery Production Plant,	Waziriya	Baghdad
5	Rustamiya Sewage Treatment Plant,	Rustamiya	Baghdad
6	Al- Mishraq Sulfur Plant	Qayyara	Ninewa
7	Al-Taji Gaz Plant	Al-Taji	Baghdad
8	Tikrit Hospital	Tikrit	Salah Al-Din
9	Al Salam Teaching Hospital	Mosul	Ninewa
10	Al-Jamhury Teaching Hospital	Mosul	Ninewa

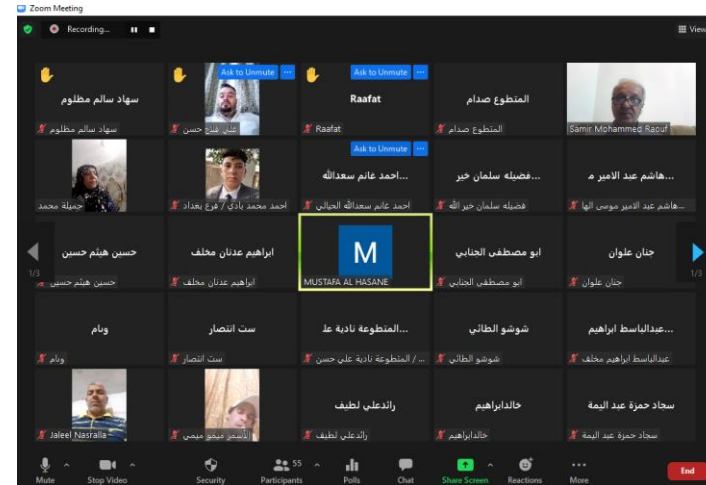


# Chemical and Toxic Risk Mitigation



Key Result 7	Indicators	Overall Targets	Results Achieved	Status
Environmental risks of toxic and chemical pollution mitigated	<u>Indicator 1:</u> Risk response and mitigation plan developed.	1 plan	1 plan developed	Completed
	<u>Indicator 2:</u> # of first responders trained on response to hazardous emergencies (CD and IRCS).	20 first responders	41 completed	Completed
	<u>Indicator 3:</u> # of key national officials trained.	40 officials	42 completed	Completed
	<u>Indicator 4:</u> # of targeted risk communication products developed.	2 communication products	- Two risk awareness workshops	Completed

# Chemical and Toxic Risk Mitigation





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# C- Lessons Learnt





# Lessons learned

- Risk of Mosul Dam collapsed has reduced due to the grouting works carried out.
- Many other dams remain vulnerable to damage and collapse due to earthquake risk and lack of maintenance
- Due to the growing risk of drought at the one hand and the occasional flooding, sustainable management of water in the reservoirs is crucial for Iraq's future



# Lessons learned

- Capacity building on flood preparedness contributed to overall improvement of national and local systems to deal with other hazards/crises;
- Engagement of locally rooted civil society organizations like the IRCS is crucial for reaching out to communities and sustainability;
- Online technologies of communication have a great potential to introduce global best practices and reduce costs
- Social media has emerged as a critical tool to reach out to larger communities quickly with customized messages at low cost.



**THANK YOU**