



Ministry of Defence
Sudan Mine Action Programme
IMSMA Monthly Report November 2022



Abbreviations

DA	–	Dangerous area
SHA	–	Suspected Hazardous Area (result of Level 1 Survey)
MF	–	Mine Field (Result of Technical survey of DA or SHA. It has defined boundary)
CHA	–	Confirm Hazardous Area
APM	–	Anti Personnel Mines
ATM	–	Anti Tank Mines
UXO	–	Unexploded Ordinance
SAA	–	Small Arms Ammunition
EOD	–	Explosive Ordinance Disposal
BAC	–	Battle Area Clearance
GMAA	–	General Mine Action Assessment
EORE	–	Explosive Ordnance Risk Education
NMAC	–	National Mine Action Center
IMSMA	–	Information Management System for Mine Action



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1. Sudan participated in the 21st Meeting of Ottawa Treaty's Member States, which was held at the UN Palace in Geneva in the period 21-25 Nov 2022. The Sudan's delegation to the meeting was headed by Brigadier-General Khalid Hamdan Adam – the Director of the National Mine Action Centre (NMAC), who was accompanied by the Programme Director, Victims Assistant and NMAC Technical Consultant.
2. Sudan was among the other seven Ottawa Treaty's Member States that submitted their request for an extension period. In order to fully comply with the articles stipulated by the Treaty, Sudan has submitted its request for extension for a new period. Sudan's delegation to the meeting presented an integrated presentation for four years which was met with wide support of the Member States and its efforts were finally culminated by unanimous approval for another extended period of four years.
3. The schedule of the meeting included reports submissions from the Member States of Ottawa Treaty concerning the others articles of the treaty. Likewise, Sudan's delegation submitted a report on the issues concerning cooperation and assistance enhancement committee, and another report on issues concerning collaborative compliance and a third one on issues related to the destruction of the stockpiles of Anti-personnel landmines. Sudan delegation has also joined two days sideline meeting on victim's assistance.
4. With the participation of twenty-eight states, Sudan took part in the workshop of "Mine Action, Challenges and Opportunities" which held in Baku the capital of Azerbaijan. Sudan delivered a presentation on an integrated approach in the application of the creative technology in mine clearance and another presentation on the role of the Sudanese woman in mine action.
5. On the other hand, the field activities of mines and explosive remnant of war clearance are progressing very well in Blue Nile region and South Kordofan State, during the month of November 2022 the following have been achieved:
 - a. **6 Hazard was registered during this month No any are cleared. (See table 1-1).**
 - b. **20,470 sqm were cleared during this month (see table 2-1).**
 - c. **total of 1 (APM), 1 (ATM), were destroyed during this month (See table 3-1).**
 - d. **No Accident was reported (see table 4.1).**
 - e. **14,062 beneficiaries of EORE activity this month (see table 5.1).**
6. Since 2002 Sudan Mine Action Programme has had registered 5,032 hazard areas, where 4,634 have been cleared. In 2022 total of 238 hazardous area have been registered while 191 hazard areas have been cleared, total of 398 hazard areas remained within area of 33,928,209 sqm (see table 1-1).
7. Since the beginning of the programme the total of 137,621,340 sqm cleared and handed over to the local communities. While In 2022 a total of 891,412 sqm cleared from Mines/ ERW (see table 2-1).
8. Since 2002 total of 10,392 Anti-Personnel Mines (APM), 3,349 Anti-Tank Mines (ATM), 173,816 Unexploded Ordnance (UXO) and 5,811,075 Small Arms Ammunition (SAA) have been destroyed. While in 2022 a total of 26 Anti-Personnel Mines (APM), 14 Anti-Tank Mines (ATM), 2,175 UXOs and 24,721 Small Arms Ammunition (SAA) destroyed (see table 1-3).
9. Since 2002 till November 2022(2,572) victims were reported, from the mentioned total (1,933) injured and (639) killed. In 2022(23) victims were reported (4) Killed and (19) Injured. (See table 4-1).
10. To mitigate the risk of Mines/ ERW accidents, the National Mine Action Center (NMAC) in collaboration with the National and International NGOs (FPDO, JSMAR, AAR and NADA Alazhar) Mine/ ERW risk education activities have been conducted to 4,979,571 persons from the beginning of the programme and 208,703 persons during this year . (See table 5-1).
11. Since the beginning of the programme and till today a total of 38,529 km roads have been opened and cleared (see table 6-1).

Note:

Due to ongoing data cleanup, differences in figures might be noticed in total figures of this month as compared to previous of months.



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Summary of the contamination and progress:

Table 1.1: Contamination:

Period	Registered			Cleared						Remain		
	CHA	SHA	Total	CHA		SHA		Total		CHA	SHA	Total
				New	Old	New	Old	New	Old			
November	6	0	6	0	0	0	0	0	0	6	0	6
2022	226	12	238	163	16	11	1	174	17	63	1	64
Running Total	1,311	3,721	5,032	1,082		3,552		4,634		229	169	398

Table 2.1: Area Released:

Period	EOD	BAC Sub Surface	BAC Surface	Battle Area Released	Cancelled	Manual Mine Clearance	Mechanical Mine Clearance	Mine Detection Dogs (MDD)	Mined Area Released	Cancelled GMAA	Total Area Released
November	19,375	0	0	19,375	0	1,095	0	0	1,095	0	20,470
2022	33,336	478,900	297,495	809,731	0	69,181	0	0	69,181	12,500	891,412
Total	2,242,767	7,428,246	65,198,691	74,869,704	12,692,971	10,917,553	2,901,977	2,214,995	28,727,496	34,024,140	137,621,340

Table 3.1: Devices Destroyed:

Period	AP	AT	SAA	UXO
November	1	1	0	0
2022	26	14	24,721	2,175
Running Total	10,392	3,349	5,811,075	173,816

Table 4.1: Casualties:

Period	Killed						Injured						Total
	Men	Women	Boys	Girls	Not Specified	Total	Men	Women	Boys	Girls	Not Specified	Total	
2022	1	0	3	0	0	4	2	1	11	5	0	19	23
Running Total	260	33	157	35	154	639	882	96	495	112	348	1,933	2,572

Table 5.1: EORE:

Period	Boys	Girls	Men	Women	Not Specified	Total
November	5,556	4,947	1,454	2,105	0	14,062
2022	58,167	52,952	50,571	47,013	0	208,703
Running Total	1,424,466	1,205,944	1,078,203	1,067,147	203,812	4,979,571

Table 6.1: Road Opened:

Period	Road Assessed (Km)	Road Verified (km)	Road Opened(km)
2022	64.12	0	0
Running Total	36,448	2,081	38,529

2. Detailed Report on Mine Action Activities in Sudan

Table 2.2: Area Released by year:

Year	EOD	BAC Sub Surface	BAC Surface	Battle Area Released	Cancelled	Manual Mine Clearance	Mechanical Mine Clearance	Mine Detection Dogs (MDD)	Mined Area Release	Cancelled GMAA	Total Area Released
2002	1,782	0	0	1,782	0	48,480	0	0	48,480	0	50,262
2003	0	0	0	0	0	465,882	0	0	465,882	0	465,882
2004	25,965	0	0	25,965	0	268,606	0	0	268,606	0	294,571
2005	37,823	0	1,050	38,873	0	140,138	0	92,400	232,538	0	271,411
2006	87,700	36,000	880,227	1,003,927	0	175,702	0	0	175,702	0	1,179,629
2007	18,381	157,760	18,260,000	18,436,141	0	666,474	0	3,812	670,286	0	19,106,427
2008	7,311	251,036	178,263	436,610	0	943,254	0	10,808	954,062	0	1,390,672
2009	37,248	478,922	1,827,405	2,343,575	1,195,514	968,567	95,354	104,229	2,363,664	0	4,707,239
2010	26,003	1,111,084	459,494	1,596,581	645,074	458,315	1,218,951	608,470	2,930,810	22,757,677	27,285,068
2011	1,523,284	1,305,956	17,762,979	20,592,219	0	369,709	894,061	222,763	1,486,533	154,224	22,232,976
2012	7,520	357,648	261,500	626,668	0	422,196	128,965	0	551,161	0	1,177,829
2013	58	361,067	584,625	945,750	1,821,301	385,770	313,734	74,770	2,595,575	7,784,366	11,325,691
2014	87	270,761	297,000	567,848	285,212	2,280,689	63,364	125,315	2,754,580	898,524	4,220,952
2015	45	65,250	1,182,024	1,247,319	0	278,401	30,104	114,653	423,158	0	1,670,477
2016	2,001	297,810	1,205,630	1,505,441	2,337,945	776,780	89,690	177,634	3,382,049	1,503,676	6,391,166
2017	15,011	311,930	2,536,057	2,862,998	259,551	575,439	67,754	64,141	966,885	74,875	3,904,758
2018	399,105	523,207	15,450,378	16,372,690	21,017	689,898	0	289,550	1,000,465	0	17,373,155
2019	25	501,100	898,725	1,399,850	6,127,357	621,718	0	254,850	7,003,925	0	8,403,775
2020	0	528,026	2,280,964	2,808,990	0	285,799	0	68,000	353,799	0	3,162,789
2021	20,082	391,789	834,875	1,246,746	0	26,555	0	3,600	30,155	838,298	2,115,199
2022	33,336	478,900	297,495	809,731	0	69,181	0	0	69,181	12,500	891,412
Total	2,242,767	7,428,246	65,198,691	74,869,704	12,692,971	10,917,553	2,901,977	2,214,995	28,727,496	34,024,140	137,621,340

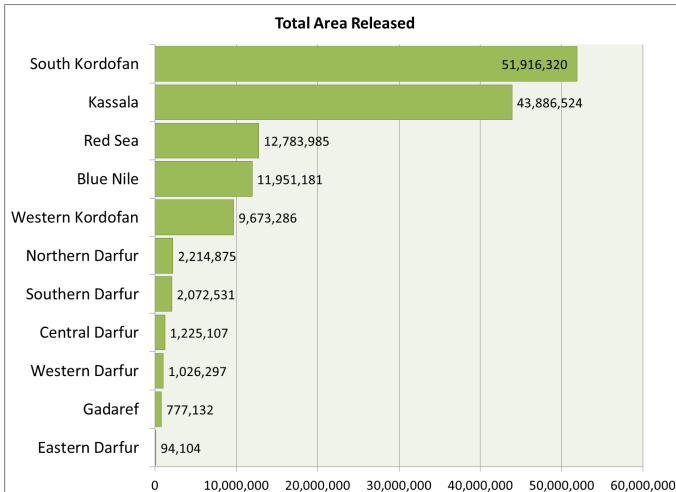
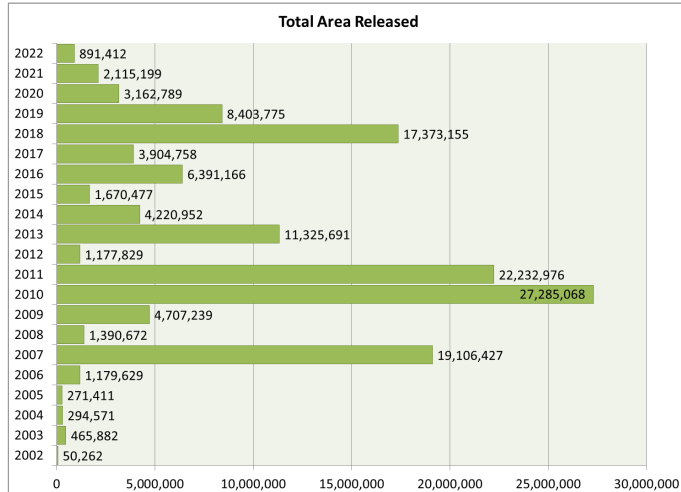
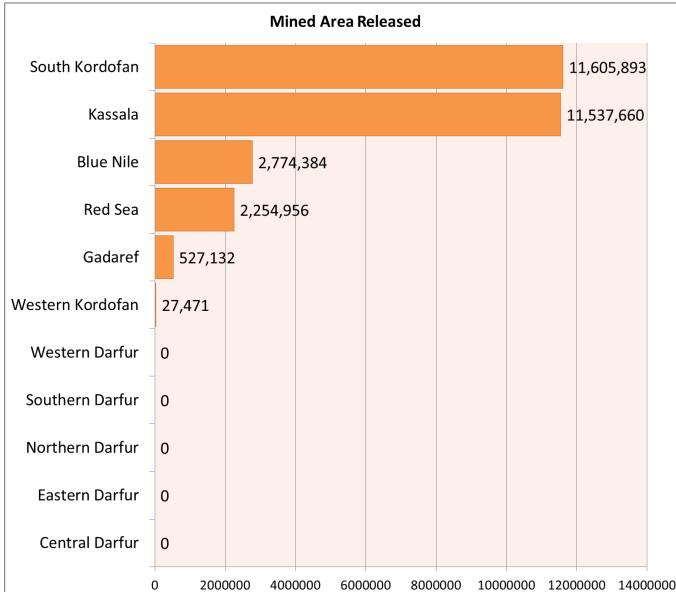
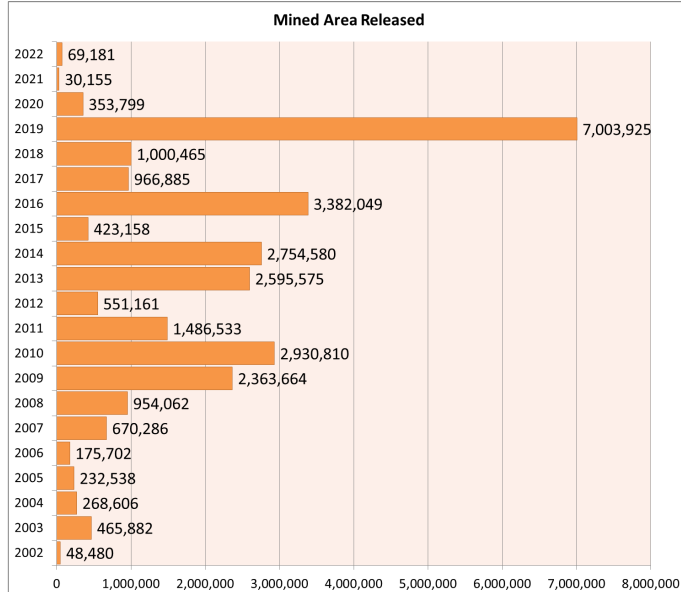
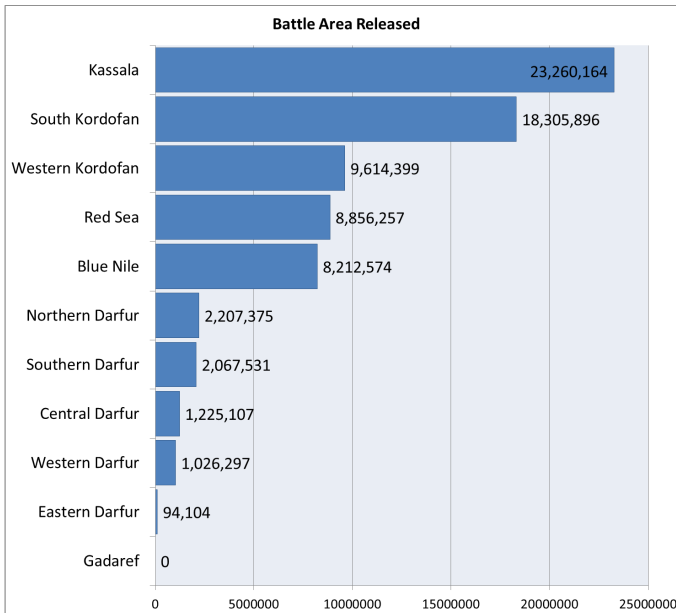
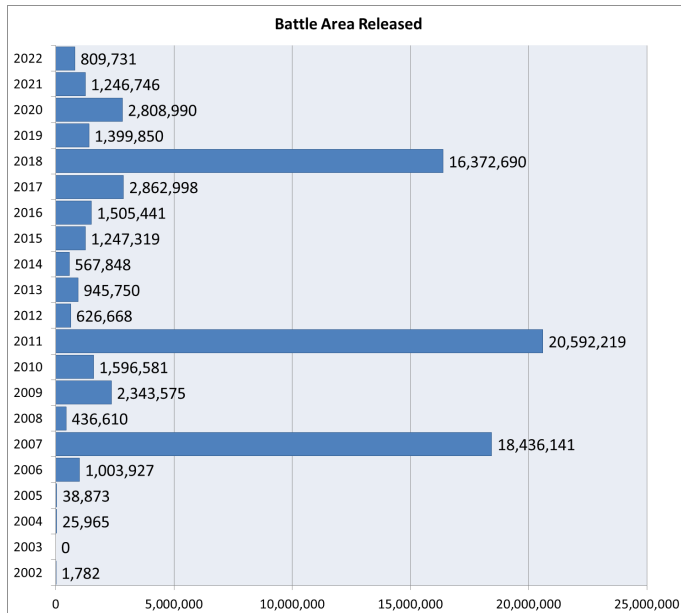
Table 2.3: Area Released by State:

Period	State	EOD	BAC Sub Surface	BAC Surface	Battle Area Released	Cancelled	Manual Mine Clearance	Mechanical Mine Clearance	Mine Detection Dogs (MDD)	Mined Area Release	Cancelled GMAA	Total Area Released
2022	Blue Nile	5,000	478775	187,495	671,270	0	26037	0	0	26037	0	697,307
	Central Darfur	1,636	0	100,000	101,636	0	0	0	0	0	0	101,636
	Northern Darfur	1,600	0	0	1,600	0	0	0	0	0	7,500	9,100
	South Kordofan	0	125	10,000	10,125	0	43,144	0	0	43,144	0	53,269
	Southern Darfur	5,200	0	0	5,200	0	0	0	0	0	5,000	10,200
	Western Darfur	19,900	0	0	19,900	0	0	0	0	0	0	19,900
	Grand Total	33,336	478,900	297,495	809,731	0	69,181	0	0	69,181	12,500	891,412
Total	Blue Nile	120,702	2,146,519	5,945,353	8,212,574	392,138	1,085,060	921,763	375,423	2,774,384	964,222	11,951,181
	Central Darfur	214,152	100	1,010,855	1,225,107	0	0	0	0	0	0	1,225,107
	Eastern Darfur	21,704	30,000	42,400	94,104	0	0	0	0	0	0	94,104
	Gadaref	0	0	0	0	182,633	233,235	0	111,264	527,132	250,000	777,132
	Kassala	522,652	2,542,239	20,195,273	23,260,164	4,286,379	4,662,981	1,672,630	915,670	11,537,660	9,088,700	43,886,524
	Northern Darfur	59,158	549,185	1,599,032	2,207,375	0	0	0	0	0	7,500	2,214,875
	Red Sea	26	176,096	8,680,135	8,856,257	1,214,413	714,413	279,930	46,200	2,254,956	1,672,772	12,783,985
	South Kordofan	269,329	1,609,502	16,427,065	18,305,896	6,617,408	4,194,393	27,654	766,438	11,605,893	22,004,530	51,916,320
	Southern Darfur	5,241	183,728	1,878,562	2,067,531	0	0	0	0	0	5,000	2,072,531
	Western Darfur	1,020,040	6,257	0	1,026,297	0	0	0	0	0	0	1,026,297
	Western Kordofan	9,763	184,620	9,420,016	9,614,399	0	27,471	0	0	27,471	31,416	9,673,286
Grand Total	2,242,767	7,428,246	65,198,691	74,869,704	12,692,971	10,917,553	2,901,977	2,214,995	28,727,496	34,024,140	137,621,340	

Note :

Since the declaration completion of the clearance of the registered dangerous areas in Eastern States, NMAC remains handling residual risk which mainly represented in the explosive remnant of war, according to the international and national standards.

Chart 2.4: Area Released:



Released Hazard By State



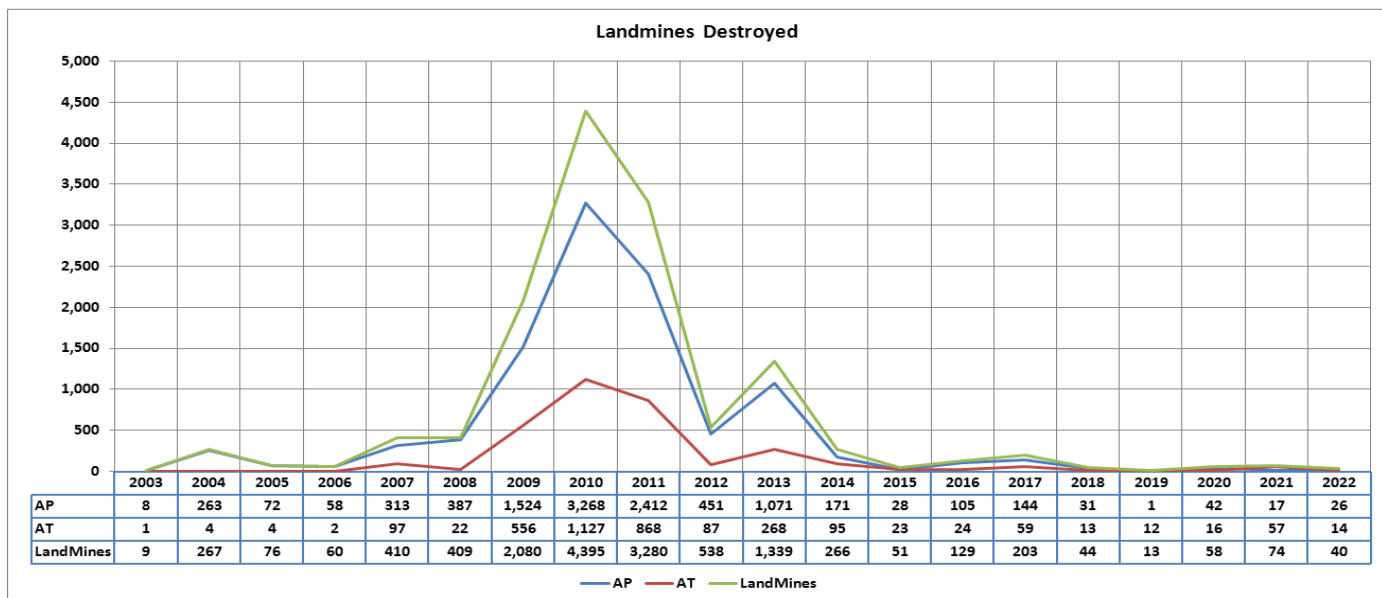
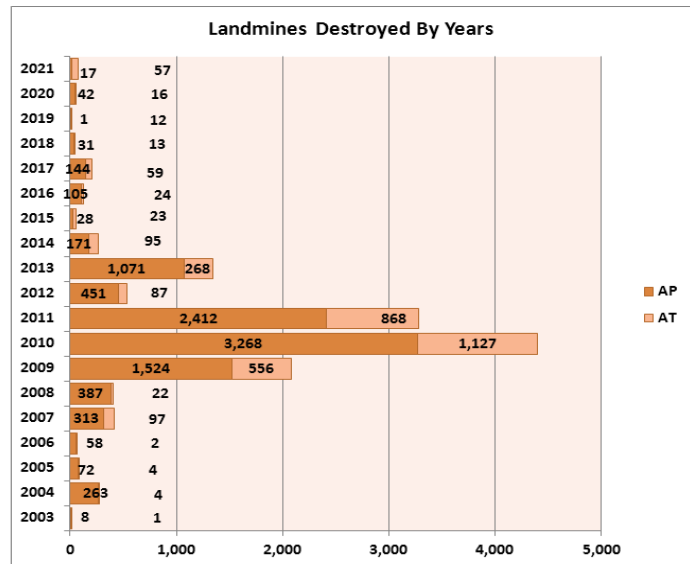
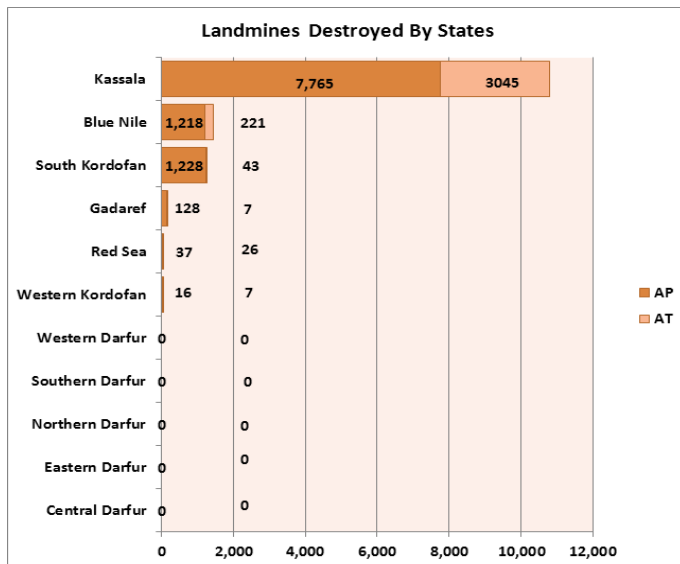
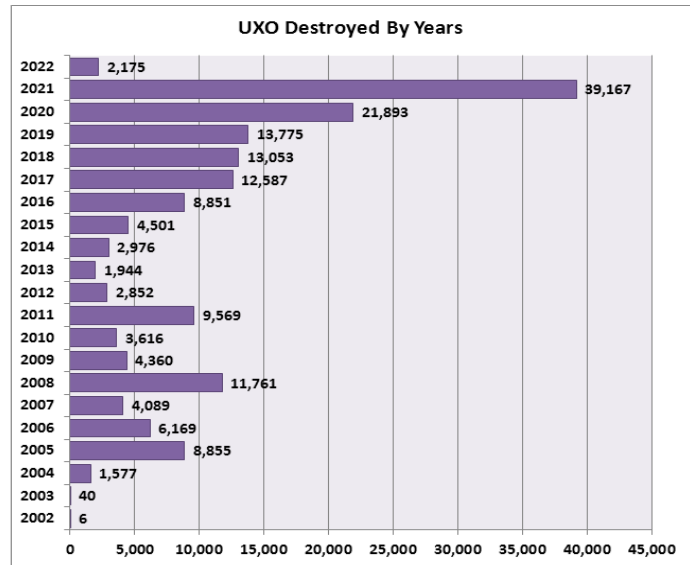
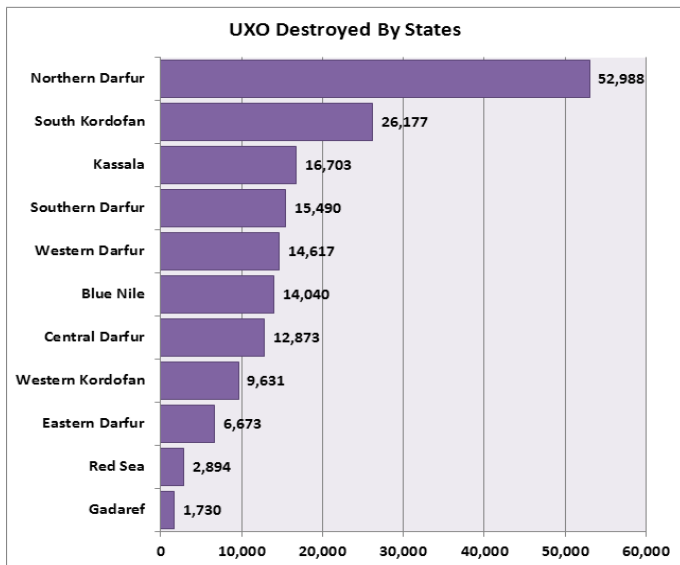
Table 3.2: Devices Destroyed by year:

Year	AP	AT	SAA	UXO
2002	0	0	345	6
2003	8	1	0	40
2004	263	4	500	1,577
2005	72	4	56,198	8,855
2006	58	2	45,727	6,169
2007	313	97	153,385	4,089
2008	387	22	82,389	11,761
2009	1,524	556	9,795	4,360
2010	3,268	1,127	20,253	3,616
2011	2,412	868	15,776	9,569
2012	451	87	8,334	2,852
2013	1,071	268	10,924	1,944
2014	171	95	14,020	2,976
2015	28	23	61,329	4,501
2016	105	24	258,255	8,851
2017	144	59	86,298	12,587
2018	31	13	696,144	13,053
2019	1	12	74,412	13,775
2020	42	16	837,147	21,893
2021	17	57	3,355,123	39,167
2022	26	14	24,721	2,175
Total	10,392	3,349	5,811,075	173,816

Table 3.3: Devices Destroyed by State:

Period	State	AP	AT	SAA	UXO
2022	Blue Nile	15	9	17,844	1,108
	Central Darfur	0	0	3,921	464
	Northern Darfur	0	0	0	16
	South Kordofan	11	5	2,939	520
	Southern Darfur	0	0	0	39
	Western Darfur	0	0	17	28
	Total	26	14	24,721	2,175
Total	Blue Nile	1,218	221	306,703	14,040
	Central Darfur	0	0	121,940	12,873
	Eastern Darfur	0	0	94,736	6,673
	Gadaref	128	7	28,619	1,730
	Kassala	7,765	3,045	15,776	16,703
	Northern Darfur	0	0	3,762,730	52,988
	Red Sea	37	26	16,697	2,894
	South Kordofan	1,228	43	346,273	26,177
	Southern Darfur	0	0	982,239	15,490
	Western Darfur	0	0	130,307	14,617
	Western Kordofan	16	7	5,055	9,631
Total	10,392	3,349	5,811,075	173,816	

Chart 3.4: Devices Destroyed:



Landmine Destroyed By State



ERW Destroyed By State



Table 4.2: Casualties by States:

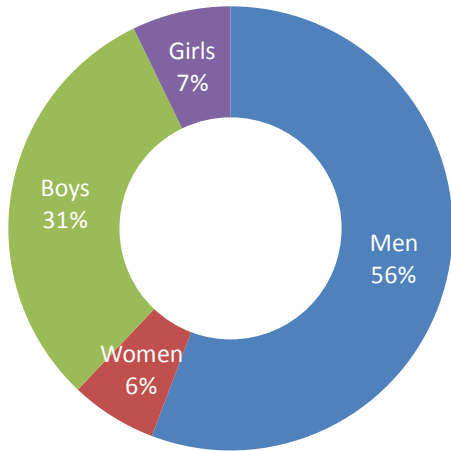
Period	State	Killed						Injured						Total
		Men	Women	Boys	Girls	Not Specified	Total	Men	Women	Boys	Girls	Not Specified	Total	
2022	Blue Nile	0	0	0	0	0	0	0	0	3	0	0	3	3
	Central Darfur	1	0	0	0	0	1	1	0	0	0	0	1	2
	Eastern Darfur	0	0	0	0	0	0	0	0	1	0	0	1	1
	Northern Darfur	0	0	2	0	0	2	0	1	4	2	0	7	9
	South Kordofan	0	0	0	0	0	0	1	0	0	0	0	1	1
	Southern Darfur	0	0	1	0	0	1	0	0	2	0	0	2	3
	Western Darfur	0	0	0	0	0	0	0	0	1	3	0	4	4
	Total	1	0	3	0	0	4	2	1	11	5	0	19	23
Total	Blue Nile	84	1	32	3	29	149	187	15	59	4	50	315	464
	Central Darfur	1	0	7	3	2	13	25	10	47	11	4	97	110
	Eastern Darfur	3	2	9	3	2	19	16	1	32	10	2	61	80
	Gadaref	1	0	1	0	1	3	3	0	1	0	1	5	8
	Kassala	79	8	20	4	10	121	268	16	63	9	41	397	518
	North Kordofan	1	0	0	0	0	1	0	0	0	0	0	0	1
	Northern Darfur	5	3	29	3	7	47	29	9	75	16	23	152	199
	Red Sea	15	3	6	1	2	27	28	0	3	1	3	35	62
	South Kordofan	60	10	26	12	92	200	251	29	99	27	174	580	780
	Southern Darfur	2	2	9	4	3	20	34	13	79	14	3	143	163
	Western Darfur	2	1	16	2	0	21	24	1	34	20	6	85	106
	Western Kordofan	7	3	2	0	6	18	17	2	3	0	41	63	81
Total	260	33	157	35	154	639	882	96	495	112	348	1,933	2,572	

Table 4.3: Casualties by Year:

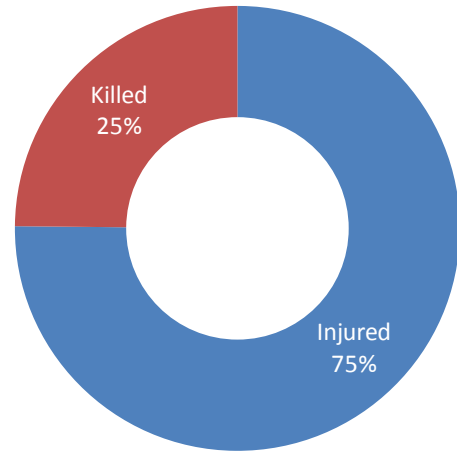
Year	Killed						Injured						Total
	Men	Women	Boys	Girls	Not Specified	Total	Men	Women	Boys	Girls	Not Specified	Total	
Before 2012	241	28	108	23	131	531	721	51	270	62	298	1,402	1,933
2012	7	2	15	2	9	35	31	4	27	3	35	100	135
2013	1	0	0	0	1	2	15	8	22	6	0	51	53
2014	1	2	0	0	0	3	31	7	16	3	0	57	60
2015	5	0	5	0	9	19	14	4	23	3	9	53	72
2016	0	0	2	1	0	3	9	5	11	4	3	32	35
2017	1	0	6	3	2	12	12	5	28	3	0	48	60
2018	0	1	12	3	2	18	20	3	21	10	3	57	75
2019	1	0	3	2	0	6	9	2	17	6	0	34	40
2020	1	0	2	1	0	4	8	5	23	5	0	41	45
2021	1	0	1	0	0	2	10	1	26	2	0	39	41
2022	1	0	3	0	0	4	2	1	11	5	0	19	23
Grand Total	260	33	157	35	154	639	882	96	495	112	348	1,933	2,572

Chart 4.4: Casualties:

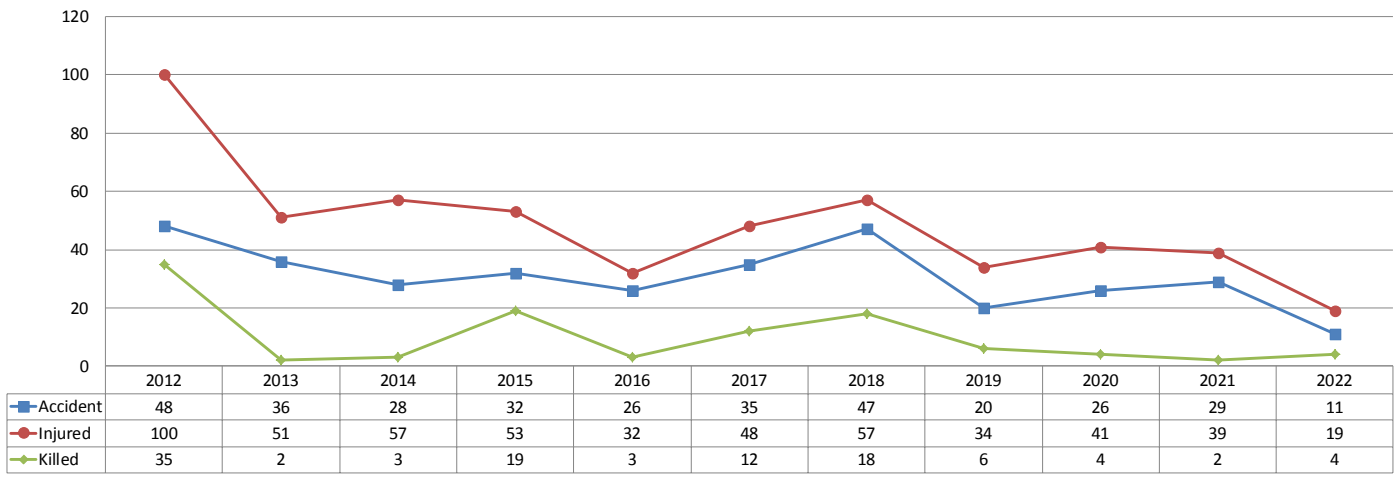
Victims Disaggregation Boys, Girls, Men and Women



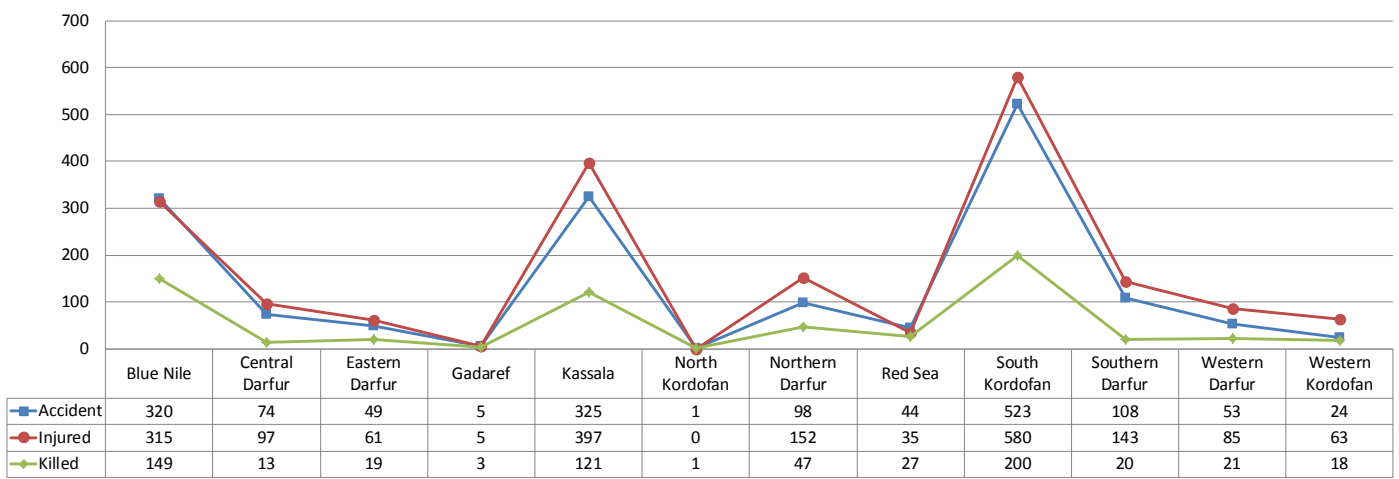
Victims Disaggregation Killed and Injured



Landmine / ERW Accidents by Years



Landmine / ERW Accidents States



Casualties Distributed By State

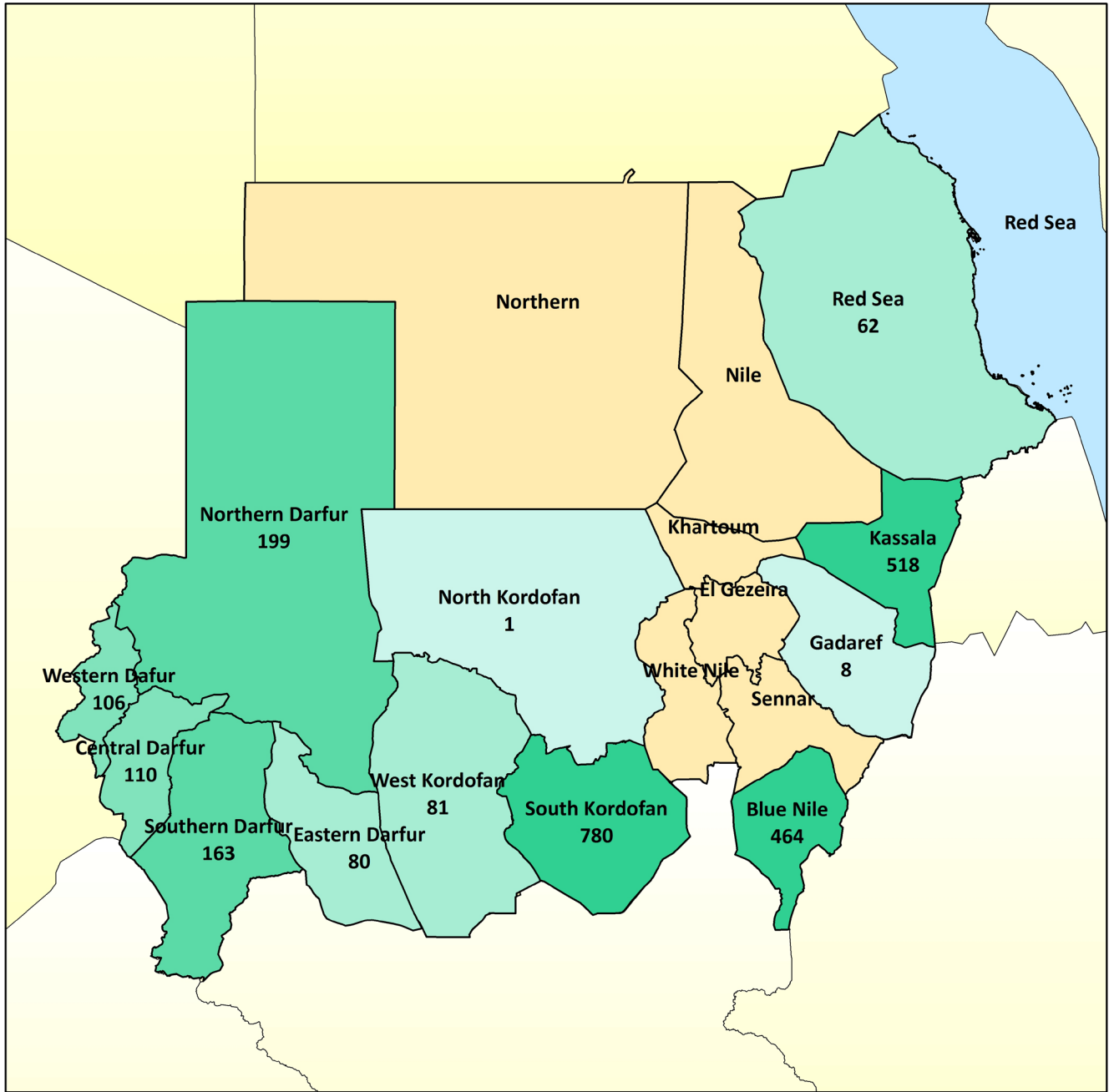


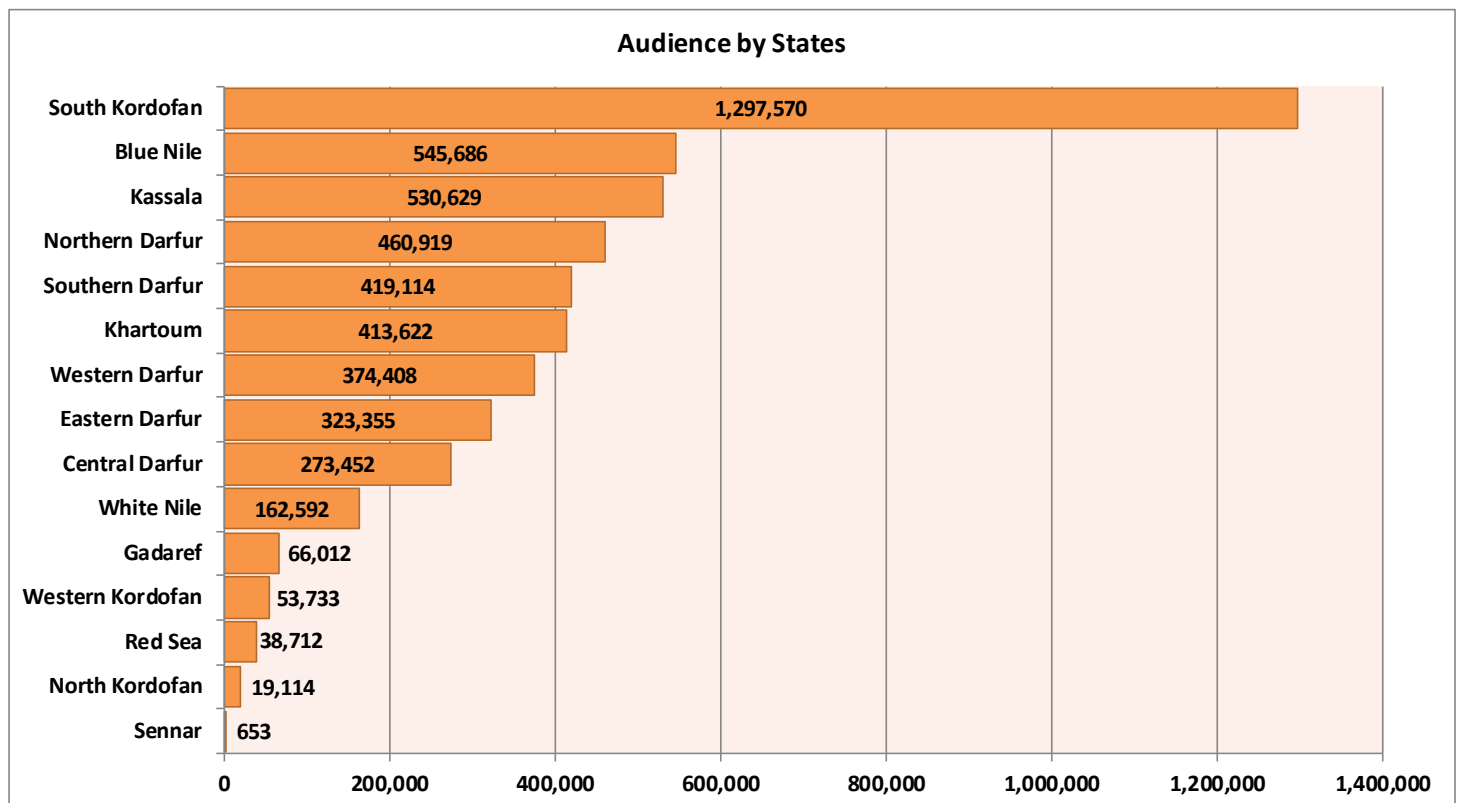
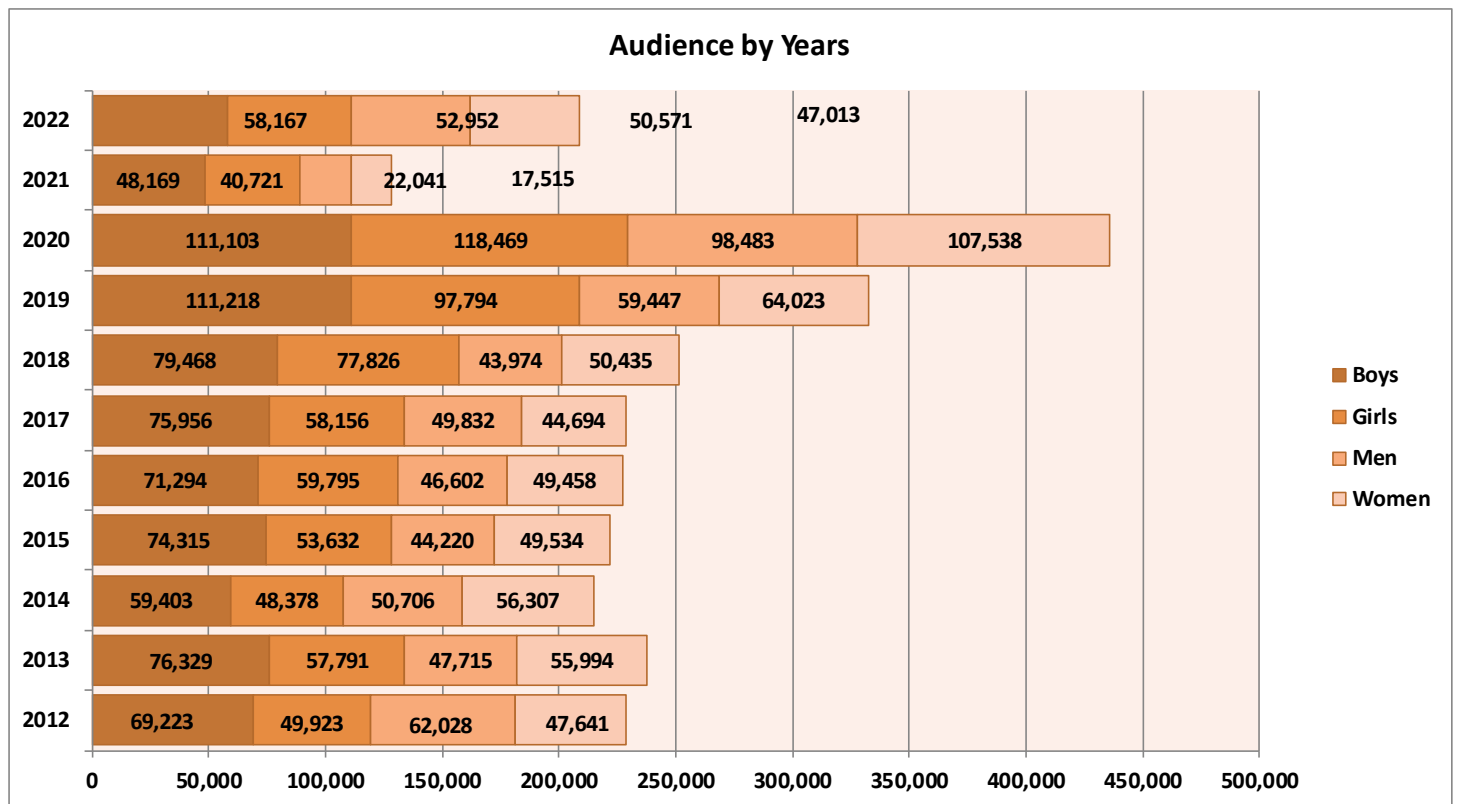
Table 5.2: EORE by State:

Period	State	Boys	Girls	Men	Women	Not Specified	Total
November	Blue Nile	353	302	498	461	0	1,614
	South Kordofan	5,203	4,645	956	1,644	0	12,448
	Total	5,556	4,947	1,454	2,105	0	14,062
2022	Blue Nile	14,400	14,104	15,184	14,799	0	58,487
	Gadaref	12,162	11,365	14,646	13,853	0	52,026
	Kassala	2,754	2,236	408	317	0	5,715
	South Kordofan	28,851	25,247	20,333	18,044	0	92,475
	Total	58,167	52,952	50,571	47,013	0	208,703
Total	Blue Nile	141,344	133,050	133,491	136,798	1,004	545,686
	Central Darfur	97,724	82,489	39,546	53,694	0	273,452
	Eastern Darfur	94,170	77,739	78,186	72,690	571	323,355
	Gadaref	15,282	13,440	19,921	17,371	0	66,012
	Kassala	151,997	93,611	169,716	113,452	1,854	530,629
	Khartoum	100,665	83,569	86,725	79,242	63,421	413,622
	North Kordofan	6,802	6,754	2,512	3,046	0	19,114
	Northern Darfur	156,827	133,631	70,657	99,804	0	460,919
	Red Sea	13,111	8,164	8,862	8,494	81	38,712
	Sennar	145	112	124	272	0	653
	South Kordofan	331,016	314,945	271,645	258,629	121,335	1,297,570
	Southern Darfur	142,165	111,598	72,957	92,395	0	419,114
	Western Darfur	121,909	99,919	76,271	76,310	0	374,408
	Western Kordofan	12,756	11,841	11,600	12,544	4,992	53,733
	White Nile	38,555	35,084	35,992	42,408	10,554	162,592
Total	1,424,466	1,205,944	1,078,203	1,067,147	203,812	4,979,571	

Table 5.3: EORE by Year:

Year	Boys	Girls	Men	Women	Not Specified	Total
Before 2012	589,821	490,507	502,584	476,995	203,695	2,263,603
2012	69,223	49,923	62,028	47,641	117	228,932
2013	76,329	57,791	47,715	55,994	0	237,829
2014	59,403	48,378	50,706	56,307	0	214,794
2015	74,315	53,632	44,220	49,534	0	221,701
2016	71,294	59,795	46,602	49,458	0	227,149
2017	75,956	58,156	49,832	44,694	0	228,638
2018	79,468	77,826	43,974	50,435	0	251,701
2019	111,218	97,794	59,447	64,023	0	332,482
2020	111,103	118,469	98,483	107,538	0	435,593
2021	48,169	40,721	22,041	17,515	0	128,446
2022	58,167	52,952	50,571	47,013	0	208,703
Total	1,424,466	1,205,944	1,078,203	1,067,147	203,812	4,979,571

Chart 5.4: EORE Audience:



EORE Distributed By State



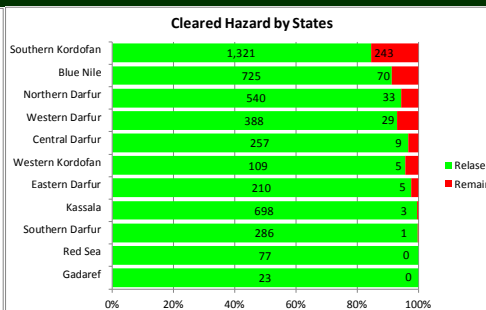
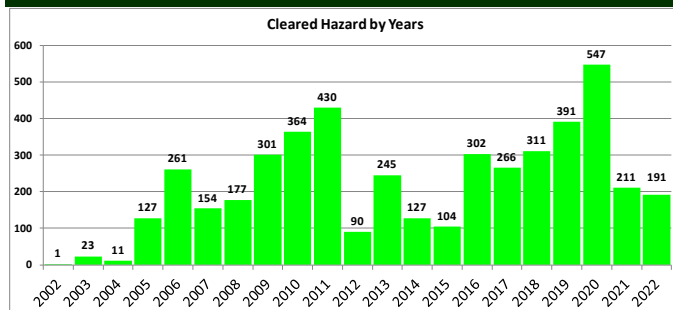
Table 1.2: Hazard Registered, Cleared and Active by State:

State	Registered			Cleared			Remain		
	CHA	SHA	Total	CHA	SHA	Total	CHA	SHA	Total
Blue Nile	312	483	795	263	462	725	49	21	70
Central Darfur	71	195	266	71	186	257	0	9	9
Eastern Darfur	17	198	215	16	194	210	1	4	5
Gadaref	12	11	23	12	11	23	0	0	0
Kassala	178	523	701	175	523	698	3	0	3
Northern Darfur	121	452	573	103	437	540	18	15	33
Red Sea	10	67	77	10	67	77	0	0	0
Southern Darfur	57	230	287	57	229	286	0	1	1
Southern Kordofan	463	1,101	1,564	312	1,009	1,321	151	92	243
Western Darfur	67	350	417	60	328	388	7	22	29
Western Kordofan	3	111	114	3	106	109	0	5	5
Grand Total	1,311	3,721	5,032	1,082	3,552	4,634	229	169	398

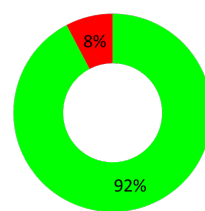
Table 1.3: Hazard Registered, Cleared and Active by Year:

Year	Registered			Cleared			Remain		
	CHA	SHA	Total	CHA	SHA	Total	CHA	SHA	Total
2002	0	103	103	0	1	1	0	2	2
2003	0	31	31	0	23	23	0	1	1
2004	7	40	47	0	11	11	4	1	5
2005	33	202	235	2	125	127	6	6	12
2006	9	369	378	1	260	261	3	11	14
2007	24	230	254	23	131	154	1	3	4
2008	76	371	447	9	168	177	26	15	41
2009	34	94	128	8	293	301	2	27	29
2010	29	196	225	54	310	364	0	7	7
2011	23	280	303	77	353	430	8	18	26
2012	5	66	71	8	82	90	0	0	0
2013	22	206	228	15	230	245	0	5	5
2014	6	78	84	13	114	127	0	0	0
2015	11	100	111	6	98	104	0	2	2
2016	2	284	286	10	292	302	0	8	8
2017	6	264	270	9	257	266	0	9	9
2018	1	308	309	1	310	311	0	8	8
2019	113	287	400	95	296	391	12	17	29
2020	449	144	593	404	143	547	50	11	61
2021	235	56	291	168	43	211	54	17	71
2022	226	12	238	179	12	191	63	1	64
Grand Total	1,311	3,721	5,032	1,082	3,552	4,634	229	169	398

Chart 1.4: Status of Hazard:



Rmain and Relased Hazard



Released Hazard By State



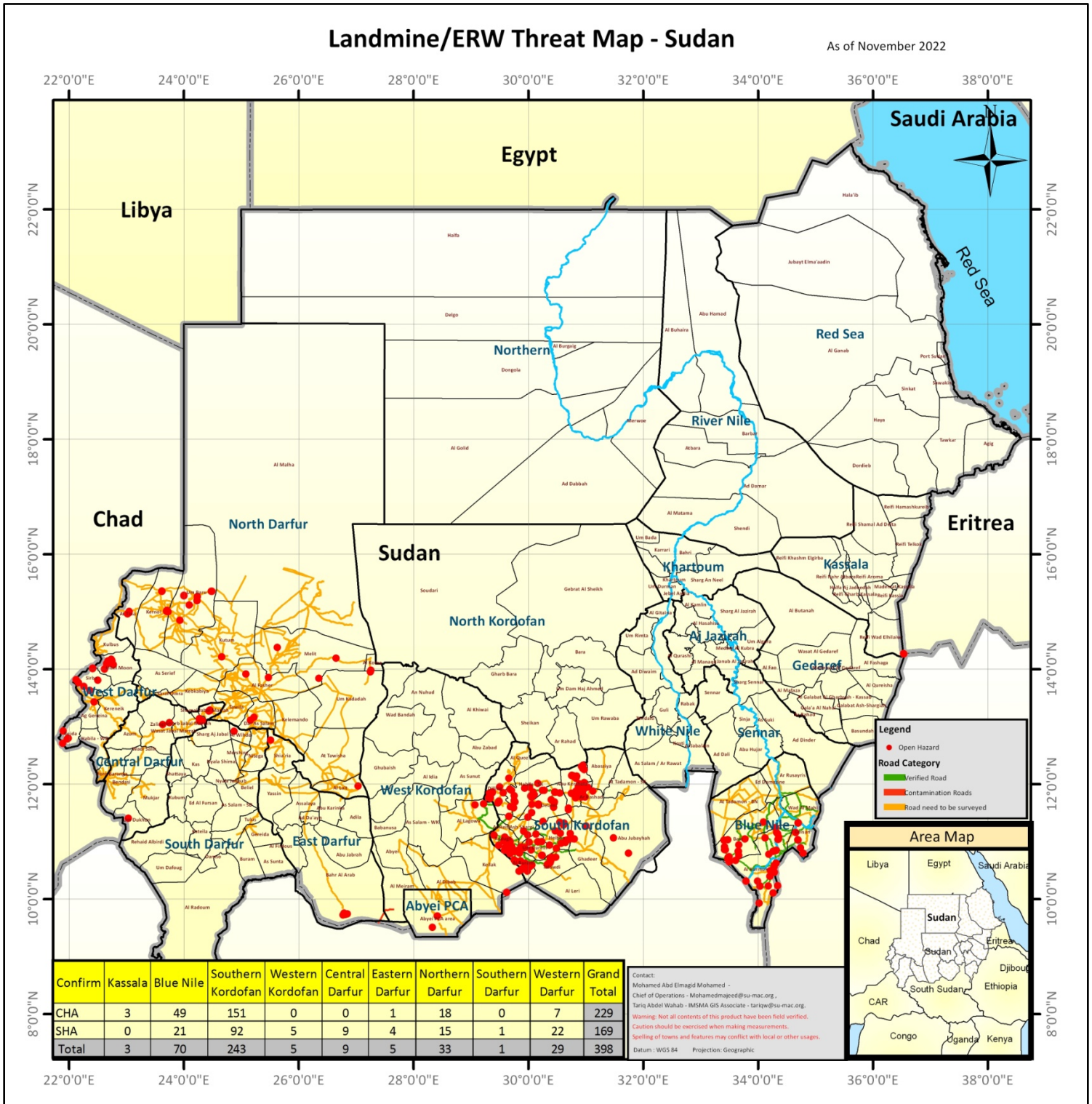
Remain Hazard By State



All Darfur states are contaminated with ERW and free of mines.

Landmine/ERW Threat Map - Sudan

As of November 2022



	Confirm	Kassala	Blue Nile	Southern Kordofan	Western Kordofan	Central Darfur	Eastern Darfur	Northern Darfur	Southern Darfur	Western Darfur	Grand Total
CHA	3	49	151	0	0	1	18	0	7	229	
SHA	0	21	92	5	9	4	15	1	22	169	
Total	3	70	243	5	9	5	33	1	29	398	

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 Warning: Not all contents of this product have been field verified.
 Caution should be exercised when making measurements.
 Spelling of towns and features may conflict with local or other usages.
 Datum : WGS 84 Projection: Geographic

