

KEY DATA

CLUSTER MUNITION CONTAMINATION: LIGHT

PARTIAL ESTIMATE

0.14 KM²

SUBMUNITION CLEARANCE IN 2021

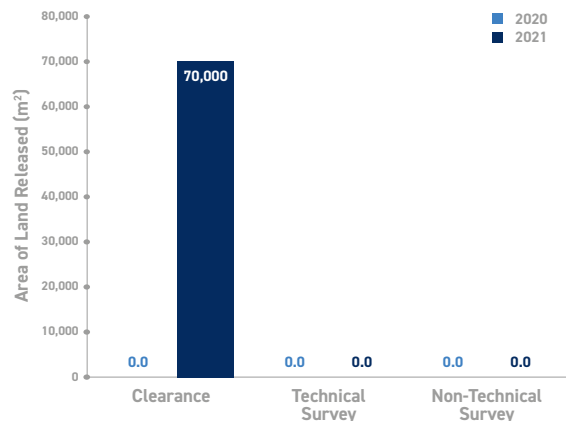
70,000 M²

SUBMUNITIONS DESTROYED IN 2021

38

(INCLUDING 4 IN EOD SPOT TASKS)

LAND RELEASE OUTPUT



RECOMMENDATIONS FOR ACTION

- Sudan should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Sudan should submit an annual voluntary Article 7 report to the CCM and should ensure that reporting disaggregates submunitions from other unexploded ordnance (UXO) and that mine action data is recorded and reported according to International Mine Action Standards (IMAS) land release terminology.
- Sudan should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Sudan should make every effort to address suspected CMR contamination as soon as possible and should elaborate a work plan with how this will be achieved.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Sudanese National Mine Action Authority (NMAA)
- Sudan National Mine Action Centre (NMAC)

NATIONAL OPERATORS

- National Units for Mine Action and Development (NUMAD)
- JASMAR for Human Security
- Global Aid Hand

INTERNATIONAL OPERATORS

- SafeLane Global (SLG)
- Danish Refugee Council/DDG (accredited in 2021 but as of writing not yet operational)

OTHER ACTORS

- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2021, Sudan had five hazardous areas covering an estimated 0.14km², of which two were very small confirmed hazardous areas (CHAs) and three were suspected hazardous areas (SHAs) covering most of the total area (see Table 1).¹ This is only a partial national picture of the extent of contamination, however, as two other SHAs believed to contain unexploded submunitions—in South Kordofan and West Kordofan states—are in areas not under government control.² Two hazardous areas totalling 5,820m² in Blue

Nile state became accessible in 2021 and were added to the national information management database.³ In addition, SafeLane Global surveyed an area at Ulu airstrip in Blue Nile state and cleared approximately 70,000m² between December 2020 and late January 2021, which was a partial clearance of a submunition strike.⁴ Full clearance did not take place as SafeLane Global's contract ended. Discovery of CHAs and SHAs and clearance of contaminated land in Blue Nile state continued in 2022.⁵

Table 1: Cluster munition-contaminated area by state (at end 2021)⁶

State	CHAs	Area (m ²)	SHAs	Area (m ²)	Total SHA/CHA	Total area (m ²)
Blue Nile	2	5,820	1	136,580	3	142,400
South Kordofan	0	0	1	N/K	1	N/K
West Kordofan	0	0	1	N/K	1	N/K
Totals	2	5,820	3	136,580	5	142,400

N/K = Not known

In 2017, the Sudan National Mine Action Centre (NMAC), which assumed full national ownership for implementing mine action activities upon the United Nations Mine Action Office's (UNMAO's) closure in June 2011, reported that of the nine open areas reported by UNMAO in 2011, seven were cleared in 2011–13.⁷ In March 2018, NMAC informed Mine Action Review that the size of the seven areas cleared during this period totalled 15,318m² and that 13 PM-1 submunitions were found and destroyed during clearance.⁸ In June 2018, NMAC informed Mine Action Review that it had deployed a team to address the remaining hazardous area in West Kordofan, located in Aghabish village, Lagawa locality, which it later reported was cancelled as no evidence of the presence of CMR was found.⁹

In the 1990s, Sudanese government forces are believed to have sporadically air dropped cluster munitions in its civil war with the Sudan People's Liberation Movement/Army (SPLM/A). Government forces were reported as having used several types of cluster munitions, including

Spanish-manufactured HESPIN 21; US-manufactured M42 and Mk118 (Rockeye), and a Brazilian copy; Chinese Type-81 dual-purpose improved conventional munitions (DPICM); Chilean-made PM-1; and Soviet-manufactured PTAB-1.5 and AO1-Sch submunitions. In 2012 and 2015, use of cluster munitions was recorded in five separate attacks on villages in South Kordofan state. Each attack involved air-dropped RBK-500 cluster munitions containing AO-2.5RT submunitions.¹⁰

In April 2017, the African Union-UN Mission in Darfur (UNAMID) reported finding two AO-1Sch submunitions in North Darfur (at Al Mengara village in Al Liet locality). The villagers stated that the bombs were dropped in 2008, had been identified by UNAMID at that time, and that the military had stated that they would dispose of the items.¹¹ The Sudanese Armed Forces Engineers destroyed the items in February 2018 and no further CMR were reported or identified.¹²

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Sudan also has a significant problem with anti-personnel mines, anti-vehicle mines, and UXO, primarily as a result of the more than 20 years of civil war that led to the Comprehensive Peace Agreement in 2005 and South Sudan's independence in July 2011 (see Mine Action Review's *Clearing the Mines* report on Sudan for further information).

1 Email from Hatim Khamis Rahama, Technical Advisor, Sudan National Mine Action Centre (NMAC), 12 May 2022.

2 Email from Hatim Khamis Rahama, NMAC, 1 May 2019; and interview in Geneva, 24 May 2019.

3 Email from Hatim Khamis Rahama, NMAC, 12 May 2022.

4 Email from Aimal Sah, Senior Operations and QM Advisor, UNMAS, 19 June 2021.

5 Email from Hatim Khamis Rahama, NMAC, 23 June 2022.

6 Ibid.

7 Emails from Hatim Khamis Rahama, NMAC, 14 June 2017; and Ali Abd Allatif Ibrahim, NMAC, 18 May 2017. In June 2016, however, NMAC had reported that no CMR-contaminated areas were "recorded as remaining hazards to be cleared" and that no separate survey or clearance operations for CMR occurred in 2015 and claimed that no cluster munitions had been found in all mine action activities "to date". Email from Ahmed Elser Ahmed Ali, Chief of Operations, NMAC, 8 June 2016.

8 Email from Hatim Khamis Rahama, NMAC, 3 March 2018.

9 Emails from Hatim Khamis Rahama, NMAC, 1 May 2019 and 14 June 2018.

10 See Cluster Munition Monitor, "Country Profile: Sudan: Cluster Munition Ban Policy", updated 23 August 2014.

11 Email from Dandan Xu, Associate Programme Management Officer, UNMAS, 12 July 2017.

12 Email from Colin Williams, Deputy Programme Manager, Ordnance Disposal Office (ODO), UNAMID, 1 June 2018.

Since South Sudan's independence, new conflicts in Abyei and in Blue Nile and South Kordofan states have resulted in increased UXO contamination in Sudan.¹³ The extent of mine and explosive remnants of war (ERW) contamination within the disputed area of Abyei and the Safe Demilitarized Border Zone (SDBZ) between Sudan and South Sudan is unknown due to security and political issues.¹⁴

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The Sudanese National Mine Action Authority (NMAA) and NMAC manage Sudan's mine action programme. Upon the independence of South Sudan, NMAC assumed full ownership of national mine action, with responsibility for coordinating and supervising the implementation of all mine action activities, including quality assurance (QA), accreditation, and certification of clearance operators.

After starting an emergency programme in 2002, UNMAS re-established activities in Sudan in 2015, following an invitation from the Sudanese Government, in an advisory and support capacity.¹⁵ As part of its mandate, UNMAS provides organisational and individual capacity development to NMAC.¹⁶ In 2021, UNMAS delivered training in quality management, operations management, and survey to the national authority. In addition, basic demining training was delivered to 28 female deminers; Explosive Ordnance Disposal (EOD) Level 1 training to 21 ex-combatants from one of the armed opposition groups; EOD Level 2 training to 20 personnel from the mine action operators; and team leadership training to 20 leaders of demining teams. In 2022, UNMAS planned to deliver training on land release, online data collection, and quality management, among other issues.¹⁷

In 2021, the Geneva International Centre for Humanitarian Demining (GICHD) provided remote support to the implementation of IMSMA Core. In the first five months of 2022, Sudan participated in two Arab Regional Cooperation Programme (ARCP) training workshops run by the GICHD in support of IMSMA Core implementation and explosive ordnance risk education with an additional IMSMA Core training planned for June.¹⁸

The government of Sudan has maintained a consistent level of national financial contribution to mine action in local currency, but due to the devaluation of the local currency against the US dollar, this has fallen from \$2 million worth of funding in local currency in 2019 and 2020 to only \$500,000 in 2021 and 2022. Sudan expects national funding to be maintained and potentially to increase as the political and economic situation improves in the country.¹⁹

Sudan has calculated that it requires \$32.6 million for land release activities (for all explosive ordnance, not just CMR) from 2022 to 2027, which works out as \$6,975,000 per year for 2022 to 2025, \$3,555,000 for 2026, and \$1,150,000 for 2027. To date, international donors have been funding the mine action programme through UNMAS and the amount that has been confirmed for 2022 and 2023, \$2,902,000 and \$1,852,000 respectively, falls far short of what Sudan has projected that it needs although some additional funds are pledged for 2022. Sudan and UNMAS have been working on resource mobilisation and have expanded the donor pool.²⁰

In Sudan, not including Jebel Merra and Abyei, UNMAS and NMAC lead mine action sub-cluster meetings to coordinate progress, tackle challenges, and support Article 5 implementation in Sudan. All relevant implementing partners, non-governmental organisations (NGOs), UN agencies, and government authorities participate. During these meetings mine action projects for the annual Humanitarian Response Plan (HRP) are developed and prioritised through a consultative process.²¹ In addition, NMAC ordinarily holds a Country Coordination Forum with all stakeholders twice a year, though only one took place in 2021 due to the political and security situation.²²

ENVIRONMENTAL POLICIES AND ACTION

Sudan reported that it has a policy on environmental management which includes information on how mine action operators should minimise potential harm from demining activities.²³ There is also a dedicated NMAC on environmental management and an environmental impact assessment is now part of the standard, which was due to be implemented in the course of 2022.²⁴

13 Human Rights Watch, "Under Siege: Indiscriminate Bombing and Abuses in Sudan's Southern Kordofan and Blue Nile States", 6 December 2012; "Unexploded Ordnance Kill 13 People in South Kordofan", *All Africa*, 10 August 2013; and UN, "UNMAS Annual Report 2012", New York, August 2013, p. 10.

14 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan".

15 UNMAS, "Sudan (excluding Darfur)", Updated March 2019, at: <http://bit.ly/2Y3IDUg>.

16 Email from Aimal Safi, UNMAS, 31 May 2020.

17 Email from Aimal Safi, UNMAS, 27 March 2022.

18 Emails from Henrik Rydberg, Country Focal Point, GICHD, 13 April and 3 June 2022.

19 Anti-Personnel Mine Ban Convention (APMBC) 2022 Article 5 deadline Extension Request, p. 4.

20 *Ibid.*, pp. 8 and 30.

21 UNMAS, "2019 Portfolio of Mine Action Projects, Sudan" at: <http://bit.ly/3d0FtVH>; and email from Hatim Khamis Rahama, NMAC, 9 April 2020.

22 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

23 *Ibid.*

24 Email from Aimal Safi, UNMAS, 27 March 2022.

GENDER AND DIVERSITY

NMAC reported that in 2021 a new gender and diversity policy was developed and endorsed and that gender is mainstreamed in the national mine action strategic plan for 2019–23 and in the NMAS for Explosive Ordnance Risk Education (EORE), survey, clearance, and victim assistance.²⁵ It stated that under those standards, all survey and community liaison teams are to be gender balanced, and that women and children are consulted during survey and community liaison activities. It said that gender is also considered in the prioritisation, planning, and tasking of survey and clearance, as per the NMAS and the new standard IMSMA forms.²⁶

Mine action data are disaggregated by sex and age.²⁷ UNMAS reported working with NMAC and implementing partners to improve this aspect of mine action reporting and information management because sex and age disaggregated data of land release beneficiaries were not being captured in IMSMA.²⁸ New reporting tools were added to the system and new reporting formats were developed for the NGOs to include this information.²⁹

NMAC reported that ethnic minority groups in affected communities are consulted during survey and considered during the planning of mine action activities. Survey teams are also structured to address all affected groups within a community, including ethnic minorities.³⁰ As part of the implementation of Juba Peace Agreement and peacebuilding efforts 21 ex-combatants from one of the Sudan People's Liberation Movement - North (SPLM-N) factions, Malik Agar located in Bau/Ulu and Ingasana mountains, completed training in IMAS EOD Level 1 during 2021 and have been integrated into mine action operations to conduct land

release in the Ulu and Ingasana mountain areas. These areas were found to be heavily contaminated with landmines and ERW including CMR.³¹

NMAC says it always encourages women to apply for employment in the national programme, whether at the office level or in the field. In 2021, 30% of NMAC staff employed at the managerial or supervisory levels were women, as were 20% of staff in operational positions.³² The first female deminer was employed in late 2019.³³ In 2021, a group of 28 women from different states and ethnic groups completed basic demining training. They were due to begin working within the different mine action operators during 2022 and 2023.³⁴

UNMAS reported that, as at March 2022, around 50% of the non-technical survey teams were female. UNMAS Sudan has 16 staff members, of whom four programme officers and one of the support service staff are women. In addition, within the national operators contracted by UNMAS there are women working in managerial positions and the medics and community liaison officers in most of the field teams are female.

In 2020–21, NMAC took part in the Arab Regional Cooperation Programme (ARCP) Gender Equality and Inclusion programme run by the GICHD. Two participants from NMAC received training and guidance from experts in the Gender and Mine Action Programme (GMAP) on how to mainstream gender and diversity in all mine action activities. The NMAC then created a dedicated Gender Focal Point (GFP) who connected with other GFPs from the region to share experiences and good practice.³⁵

INFORMATION MANAGEMENT AND REPORTING

In 2018, NMAC began upgrading the IMSMA software to a more recent New Generation version, with assistance from the GICHD. Significant efforts to correct errors in the database were also undertaken.³⁶ In 2022, Sudan began the migration to IMSMA Core, which was ongoing as of writing.³⁷ In 2021, an IMSMA Officer deployed from the Swiss government was embedded within the NMAC to support the information management department and an agreement was signed to grant Sudan a licence for the geographic information system (Arc GIS) software.³⁸

25 Ibid.

26 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

27 Email from Hatim Khamis Rahama, NMAC, 9 April 2020.

28 Email from Aimal Safi, UNMAS, 31 May 2020.

29 Email from Aimal Safi, UNMAS, 22 July 2020.

30 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

31 2022 Article 5 deadline Extension Request, p. 22.

32 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

33 Email from Aimal Safi, UNMAS, 12 April 2021.

34 2022 Article 5 deadline Extension Request, pp. 65–66.

35 Email from GICHD, 29 June 2021.

36 Emails from Ahmed Elser Ahmed Ali, NMAC, 9 May and 8 June 2016; and Third APMB Article 5 deadline Extension Request, March 2018, pp. 37–38.

37 Email from Henrik Rydberg, GICHD, 3 June 2022.

38 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

PLANNING AND TASKING

In March 2022, NMAC reported that the new national mine action strategic plan for 2019–23 had been finalised but was still awaiting approval.³⁹ In its latest Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, Sudan predicted that a revised mine action strategy would be approved and issued in February 2023.⁴⁰ No specific strategy for the release of CMR-contaminated areas has been developed.

In 2021, a systematic prioritisation system was introduced as part of the new national mine action standards (NMAS) and linked with IMSMA with each SHA and CHA classified as high, medium, or low impact and prioritised accordingly.⁴¹

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

In May 2021, NMAC reported that a review of Sudan's NMAS had been completed and the revised standards had been endorsed.⁴² The NMAS were reviewed by a technical committee comprised of representatives from NMAC, UNMAS, and national operators with the support of an international expertise from UNAMID. UNMAS is working with the NMAC and national operators to develop their standing operating procedures (SOPs) to ensure they are compliant with the new NMAS.⁴³

In 2021, the Sudanese Regional Training Center was established to deliver mine action training to the Sudan programme, with two NMAC staff participating in a technical survey training course organised by the GICHD, and also to provide support to neighbouring mine action programmes.⁴⁴

OPERATORS AND OPERATIONAL TOOLS

National operators that conducted demining operations in Sudan in 2021 were JASMAR for Human Security (JASMAR), National Units for Mine Action and Development (NUMAD), and Global Aid Hand.⁴⁵ There are also two international operators, SafeLane Global (SLG), which became operational in December 2020, and Danish Refugee Council/DDG, which was accredited during 2021 and as at March 2022, had yet to become operational.⁴⁶

Table 2: Operational clearance capacities deployed in 2021⁴⁷

Operator	Manual clearance teams (MCTs)/ Multi-task teams (MTTs)	Total deminers	Dogs and handlers	Machines
NUMAD	0	0	2 dogs & 2 handlers	RVCT mainly for mine clearance on roads
JASMAR	1 MCT 9 MTTs	8 32	0	0
SLG	2 MTTs	10	0	0
Global Aid Hand	1 MTT	4	0	0
Totals	13 teams	54	2 dogs & 2 handlers	0

39 Ibid.

40 2022 Article 5 deadline Extension Request, p. 19.

41 Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

42 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

43 Email from Aimal Safi, UNMAS, 12 April 2021.

44 Emails from Hatim Khamis Rahama, NMAC, 31 March 2022; and Henrik Rydberg, GICHD, 3 June 2022.

45 Email from Hatim Khamis Rahama, NMAC, 19 May 2021.

46 2022 Article 5 deadline Extension Request, p. 45.

47 Emails from Hatim Khamis Rahama, NMAC, 31 March 2022; and Aimal Safi, UNMAS, 27 March 2022.

Table 3: Operational survey capacities deployed in 2021⁴⁸

Operator	NTS teams	Total NTS personnel	TS teams	Total TS personnel
JASMAR	3	12	10	44
NUMAD	0	0	1	8
Global Aid Hand	5	20	3	12
Totals	8	32	14	64

NTS = Non-technical survey TS = Technical survey

The multi-task teams (MTTs) and manual clearance team (MCT) were deployed for the clearance of all priority hazardous areas, however, the focus was on anti-personnel mined areas. There was a slight decrease in operational capacity from 2020 to 2021 as NUMAD had some internal issues and could not take part in tendering process. Due to a decrease in funding, operational capacity might decrease further for the operational year 2022-23.⁴⁹

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2021

In December 2020, in newly-accessible Blue Nile state, SafeLane Global teams started to clear submunitions as EOD spot tasks, and to survey and clear an airstrip in Ulu. Clearing the airstrip was a priority for the local authorities, and although SafeLane Global surveyed and started clearance of surface and sub-surface contamination, the task was suspended in late January 2021 as the contract ended. Clearance covered approximately 70,000m² and involved the destruction of 34 PM-1 submunitions.⁵⁰ This is an increase on clearance in 2020, when no CMR-contaminated area was released through survey or clearance. In addition, four submunitions were destroyed by JASMAR in 2021 during EOD spot tasks.⁵¹

PROGRESS TOWARDS COMPLETION

Sudan is not a State Party to the CCM and therefore does not have a specific clearance deadline under Article 4. Nonetheless, it has obligations under international human rights law to clear CMR as soon as possible.

In May 2017, NMAC informed Mine Action Review that Sudan was “with the spirit of the Convention on Cluster Munitions” and that the national authorities were aware of the convention and Sudan’s current status as not yet having joined.⁵² In March 2022, the NMAC stated that there had been no developments in 2021 with regard to Sudan’s accession to the CCM.⁵³

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

Sudan has a plan to deal with residual risk and liability post-completion.⁵⁴ As at March 2022, NMAC continues to deal with any residual contamination in the eastern states with the government’s funding.⁵⁵ However, it is planned that in the long term Sudan will establish a sustainable national capacity within the military or police.⁵⁶

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Emails from Aimal Safi, UNMAS, 19 and 26 June 2022.

⁵¹ Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

⁵² Email from Ali Abd Allatif Ibrahim, NMAC, 18 May 2017.

⁵³ Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

⁵⁴ Email from Hatim Khamis Rahama, NMAC, 9 April 2020.

⁵⁵ Email from Hatim Khamis Rahama, NMAC, 31 March 2022.

⁵⁶ Email from Hatim Khamis Rahama, NMAC, 19 May 2021.