SOUTH SUDAN

MINE ACTION REVIEW

CLEARING THE MINES 2023

ARTICLE 5 DEADLINE: 9 JULY 2026
NOT ON TRACK TO MEET DEADLINE

KEY DATA

ANTI-PERSONNEL (AP) MINE CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

5.42KM²

AP MINE CLEARANCE IN 2022

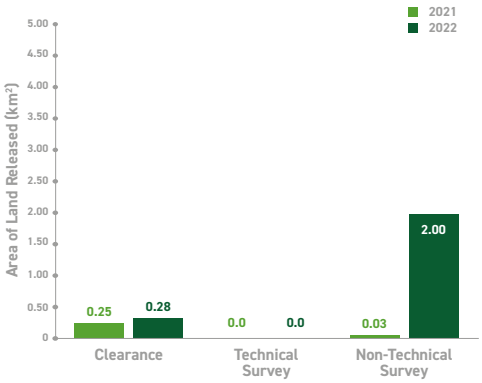
0.28KM²

AP MINES DESTROYED IN 2022

136

(INCLUDING 12 DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



CURRENT LIKELIHOOD OF MEETING 2025 CLEARANCE TARGET *(as per the Oslo Action Plan commitment)*: **LOW**

KEY DEVELOPMENTS

In 2022, clearance of cluster munition remnants (CMR) and other unexploded ordnance (UXO) continued to be prioritised over mine clearance due to the far higher number of victims from UXO. However, release of anti-personnel (AP) mined area increased in 2022 to 2.28km² from just over 0.28km² in 2021, primarily due to the cancellation of an old, large polygon measuring 1.98km². While acknowledging the challenges, South Sudan maintains it is on track to clear all AP mined areas by its Article 5 Anti-Personnel Mine Ban Convention (APMBC) deadline of 26 July 2026. It is, however, increasingly unlikely that South Sudan will meet this deadline. On 12 June 2023, the South Sudanese parliament passed the National Mine Action Authority Bill.

RECOMMENDATIONS FOR ACTION

- **South Sudan should develop a new mine action strategy to replace its 2018–2022 Strategy.**
- **South Sudan should increase its financial support for mine action operations as well as to the National Mine Action Authority (NMAA).**
- **South Sudan should strengthen the coordination of mine action and develop a resource mobilisation strategy to attract new and former donors.**
- **South Sudan should clarify the steps it is taking to mainstream gender across its mine action programme to ensure that diverse needs are duly considered.**
- **South Sudan should ensure that the information management system is nationally owned and can be sustainably managed post-completion.**

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2022)	Score (2021)	Performance Commentary
UNDERSTANDING OF CONTAMINATION (20% of overall score)	8	8	Targeted re-survey to better define the estimated size of suspected hazardous areas (SHAs) continues although access to some SHAs is dependent on improvements in the security situation and is restricted by seasonal rains and flooding.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	4	4	The NMAA continued to face serious financial and technical limitations, preventing it from managing mine action operations effectively in 2022, with the United Nations Mine Action Service (UNMAS) still assuming that function. The government does not fund mine survey or clearance. About 70% of all mine action activities are funded by the UN Mission in South Sudan (UNMISS) through UNMAS.
GENDER AND DIVERSITY (10% of overall score)	6	6	South Sudan's second national mine action strategy for 2018–22 and the National Technical Standards and Guidelines (NTSGs) cover gender issues. There is a focus on ensuring gender-balanced survey teams and gender- and age-sensitive data collection and community outreach. Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by local communities. Commercial firms and international non-governmental organisations (NGOs) have taken action to improve gender balance among their personnel but redressing the gender imbalance remains a long-term challenge.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	7	7	A comprehensive review of all data in South Sudan's Information Management System for Mine Action (IMSMA) database was undertaken in 2018, and re-survey of recorded suspected and confirmed hazardous areas has resulted in significant gains in the understanding of mine contamination. In 2022, a major transition of IMSMA information to Survey123 was completed. South Sudan's APMBC Article 7 report for 2022, dated 30 April 2023, included no mine contamination or land release data.
PLANNING AND TASKING (10% of overall score)	6	6	South Sudan had a National Mine Action Strategy for 2018–22, which was reviewed in 2020. In 2022, South Sudan developed an updated and detailed work plan providing annual targets for land release for mines and other explosive ordnance to 2026. The Geneva International Centre for Humanitarian Demining (GICHD) is to support the NMAA to develop a new multiyear strategy.
LAND RELEASE SYSTEM (20% of overall score)	8	8	A number of revisions were made to South Sudan's NTSGs during 2022, including increasing the frequency of internal quality assurance (QA) visits. The number of teams with 15-lane capacity increased to 12 (8 mine action and 4 emergency response teams) and UNMAS introduced manual linear-section-based methodology for three clearance teams which it believes improves efficiency.
LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE (20% of overall score)	6	6	South Sudan's land release output of AP mined area increased in 2022 after a dramatic fall in 2021, due to the cancellation of a large polygon. However, mines are not prioritised for clearance over other explosive ordnance that pose a greater threat to life. It is increasingly unlikely that South Sudan will meet its Article 5 deadline of July 2026.
Average Score	**6.7**	**6.7**	**Overall Programme Performance: AVERAGE**

DEMINING CAPACITY

MANAGEMENT CAPACITY

- National Mine Action Authority (NMAA)

NATIONAL OPERATORS

- None

INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Danish Refugee Council (DRC)
- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)
- SafeLane Global (SLG)

OTHER ACTORS

- UN Mine Action Service (UNMAS)

UNDERSTANDING OF AP MINE CONTAMINATION

As at the end of 2022, South Sudan had a total of 112 AP mined areas, of which 65 were confirmed hazardous areas (CHAs) and 47 were suspected hazardous areas (SHAs), covering a total area of just under 5.42km^2 (see Table 1).[1] This is a decrease in the estimated extent of contamination since 2022,[2] largely due to the cancellation of an old, large polygon in Jonglei state measuring 1.98km^2. Since a comprehensive database review of all contamination data in 2018 and targeted re-survey, South Sudan has released significant AP mined area.[3]

Table 1: AP mined area by state (at end 2022)[4]

State	CHAs	Area (m^2)	SHAs	Area (m^2)	Total SHA/CHA	Total area (m^2)
Central Equatoria	37	1,379,557	28	224,819	65	1,604,376
Eastern Equatoria	17	804,064	5	41,836	22	845,900
Jonglei	3	208,802	8	1,656,580	11	1,865,382
North Bahr El Ghazal	2	88,540	0	0	2	88,540
Upper Nile	4	270,479	0	0	4	270,479
Warrap	0	0	1	40,000	1	40,000
West Bahr El Ghazal	1	201,738	0	0	1	201,738
Western Equatoria	1	99,398	5	399,824	6	499,222
Totals	**65**	**3,052,578**	**47**	**2,363,059**	**112**	**5,415,637**

According to the United Nations Mine Action Service (UNMAS), at the end of 2022 South Sudan, also had 74 suspected and confirmed anti-vehicle (AV) mined areas, covering just over 4.6km^2 (see Table 2),[5] up from 72 hazardous areas covering just under 4.2km^2 at the end of 2021.[6]

Table 2: Mined area (at end 2022)[7]

Type of contamination	CHAs	Area (m^2)	SHAs	Area (m^2)
AP mines	65	3,052,578	47	2,363,059
AV mines	49	2,174,401	25	2,475,161
Totals	**114**	**5,226,979**	**72**	**4,838,220**

South Sudan is contaminated by AP and AV mines as well as explosive remnants of war (ERW), including cluster munition remnants (CMR).[8] The weapons were used during nearly 50 years of Sudanese civil war in 1955–72 and 1983–2005. The signing of the Comprehensive Peace Agreement in January 2005 led to the secession and independence of South Sudan in July 2011. Following two years of independence and relative peace in South Sudan, heavy fighting erupted in the capital, Juba, in December 2013, initiating new armed conflict across the country. The situation deteriorated in July 2016, leading to widespread displacement, distress, and destitution.

1 Email from Matt Williams, Senior Programme Officer, United Nations Mine Action Service (UNMAS) South Sudan, 23 March 2023.

2 Ibid.

3 Revised 2020 Article 5 extension request, p. 11.

4 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

5 Ibid.

6 Email from Fran O'Grady, then UNMISS, 9 March 2022.

7 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

8 On 4 August 2023, South Sudan acceded to the Convention on Cluster Munitions and will become a State Party on 1 February 2024. South Sudan's Article 4 deadline to clear and destroy CMR will be 1 February 2034.

With the signing of the Revitalized Agreement on the Resolution of the Conflict in the Republic of South Sudan (R-ARCSS) in September 2018, the security situation across the country improved, and access was possible to many areas that security issues previously rendered inaccessible.[9] However, the security situation remains fluid, and in 2021 widespread intercommunal violence, banditry and politically motivated violence affected survey and clearance operations.[10] Security improved in 2022 and there were fewer security-related access issues, while restrictions continued in response to ongoing localised security issues. Seasonal rains also continue to hinder access, with flooding expected between June and November in many areas.[11]

The only comprehensive, countrywide mine survey to be conducted in South Sudan was a Landmine Impact Survey between 2003 and 2006.[12] In 2017, UNMAS initiated a review of the national Information Management System for Mine Action (IMSMA) database, which concluded that the extent of much of the AP mine contamination had been over-estimated. UNMAS consequently initiated a process of targeted re-survey aimed at better defining the size of SHAs and re-survey is an ongoing process.[13] In 2022, 119,133m^2 of previously unrecorded AP contamination was identified and added to the database.[14] In 2023, UNMAS began a small pilot baseline survey in Unity state.[15]

According to UNMAS, current contamination data are considered "accurate and evidence based, but not complete". While more hazardous area is likely to be identified in remote areas, this is unlikely to dramatically increase the overall size of contamination. A countrywide baseline survey would still be advisable in the future, subject to funding and access.[16]

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan National Mine Action Authority (NMAA), established by presidential decree in 2006 as the South Sudan Demining Authority (SSDA), is the national agency for planning, coordination, and monitoring of mine action in South Sudan.[17] On 12 June 2023, the National Mine Action Authority Bill was passed by parliament.[18] The legislation guides the implementation of demining activities across the country and provides for oversight of the activities of the mine authority, international and national non-governmental organisations (NGOs), and contracted companies.[19]

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA, and UNMAS derives its current responsibilities from the United Nations Mission in South Sudan (UNMISS) mandate.[20] Together, UNMAS and the NMAA oversee mine action across the country. The NMAA and UNMAS both have offices in Juba, UNMAS has sub-offices in Bentiu, Bor, Malakal, and Wau, while the NMAA also has offices in Wau and Yei.[21] UNMAS and the NMAA accredit, task, monitor, and evaluate mine action organisations; conduct route verification and clearance; provide escorts for convoys on high-threat routes to enable the delivery of humanitarian assistance; and collect data and map hazardous areas.[22]

The NMAA continues to expand its responsibilities gradually. However, it still faces serious financial and technical limitations preventing it from managing mine action operations effectively and UNMAS and international NGOs continue to support the authority.[23] The NMAA does, though, play a significant role in facilitating mine action operations.[24] Monthly coordination meetings, co-chaired by the NMAA and UNMAS, bringing together all operators (commercial and international NGOs), resumed in 2023 having been largely dormant in recent years.[25] There is, however, no national platform involving all stakeholders, including donors, for regular in-country dialogue on progress, challenges and support for mine action.

There is generally an enabling environment for mine action operations in South Sudan and the authorities support the necessary administrative processes for granting visas to international staff and importing equipment, and approve memoranda of understanding.[26] The Ministry of Labour sometimes rejects work permit applications for international mine action staff if they deem there to be national workers

9 Revised 2020 Article 5 deadline Extension Request, p. 52.

10 Article 7 Report (covering 2020), p. 4; and email from Goran Tomasevic, UNMAS Deputy Chief of Operations (UNMISS), 10 July 2022.

11 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

12 Ibid.

13 Email from Fran O'Grady, UNMISS, 9 March 2022.

14 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

15 Remarks by Goran Tomasevic, Deputy Chief of Operations, UNMAS, at a meeting with UNMAS, Juba, 30 May 2023.

16 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

17 "South Sudan De-Mining Authority", undated, at: http://bit.ly/2Y5Eb4o.

18 South Sudan Parliament passes Mine Authority Act", *No. 1 Citizen Daily Newspaper*, 13 June 2023, at https://bit.ly/45u4NPm.

19 Ibid.

20 Remarks by Fran O'Grady, Chief of Mine Action, UNMAS, at a meeting with UNMAS, Juba, 30 May 2023.

21 Ibid.

22 UNMAS, "Mine Action Portfolio 2019".

23 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

24 Remarks by Fran O'Grady, UNMAS at a meeting with UNMAS, Juba, 30 May 2023.

25 Remarks by Jurkuch Barach, Chairperson, NMAA, at Monthly Mine Action Coordination Meeting, Juba, 30 May 2023.

26 Email from Lisa Müeller-Dormann, Humanitarian Disarmament and Peacebuilding Programme Manager, Danish Refugee Council (DRC), 27 March 2023.

with the required skills.[27] Delays are often encountered when importing demining equipment as multiple approvals are required from different government offices. If equipment is no longer needed after the end of a programme, it is usually handed over to the government or an identified partner in South Sudan; equipment cannot be re-exported.[28]

In 2022, UNMAS provided training to NMAA staff in operational management, quality management (QM), and monitoring and evaluation.[29] A pilot project between August 2021 and March 2022 resulted in the development of an explosive ordnance disposal (EOD) mobile team within the national authority that was trained and accredited to conduct not only spot tasks, but also survey and explosive ordnance risk education (EORE). They received a total of 10 EOD spot task requests during the programme and disposed of an unexploded submunition and another 17 items of UXO.[30]

Mines Advisory Group (MAG) provided capacity-building support to the NMAA whereby NMAA staff are seconded to MAG teams as deminers for an average of three years. The programme aims to equip staff with the skills necessary to lead potential future technical teams within the NMAA. Secondees develop on-the-job experience as deminers, attend technical training courses such as EOD Level 2, and develop leadership and management skills. In 2022, one secondee was promoted to the role of Site Supervisor, the first NMAA staff member to reach this leadership level;[31] others have become team leaders.[32] In March 2023, three NMAA staff were on secondment with MAG.[33] In addition, following an institutional capacity assessment of the NMAA by MAG in 2021, MAG recruited a capacity development advisor to work with the NMAA for nine months from September 2022 to strengthen its human resources, procurement, financial management, and logistics.[34]

DanChurchAid (DCA) has employed NMAA staff and one staff member is training to become a technical advisor. In addition, DCA is providing capacity-building support on EORE to a national NGO, Support for Peace and Education Development Programme (SPEDP).[35] Danish Refugee Council (DRC) is training the national NGO, Community In Need Aid (CINA), on clearance and EORE procedures and nine CINA staff are seconded to DRC teams.[36] DRC and DCA highlight the peacebuilding and development slant they bring to mine action.[37] The Geneva International Centre for Humanitarian Demining (GICHD), in partnership with the UN Development Programme (UNDP), has undertaken a study on the impact of mine action on the Sustainable Development Goals, which was published in July 2023.[38] The study highlights the value of mine action in South Sudan as an enabler of broader humanitarian, peace, and development efforts.[39] In 2022, UNMAS and DRC were the co-coordinators of the mine action sub-cluster.[40] There has been a lack of engagement with the subcluster in recent years and it has not been very active.[41]

The Government of South Sudan has previously reported funding NMAA staff salaries and its sub-offices in Wau and Yei, although as at March 2023, the Yei office was still not operational, having closed in 2021 for security reasons.[42] It was not clear what funding, if any, the Government of South Sudan provided to the NMAA in 2022.

In South Sudan's Updated Work Plan for January 2022 – June 2026, completing all clearance by July 2026 was estimated to require more than US$143 million.[43] In 2021, funding for mine action from external sources, including through UNMAS, was in the region of US$35.5 million,[44] while in 2022 it was about US$42 million.[45] In 2022, UNMISS provided about 70% (a total of $29 million) of the funding for mine action in South Sudan, all of which was managed by UNMAS.[46] UNMAS contracted 24 commercial demining teams to undertake a range of clearance, survey, disposal work and risk education activities for a range explosive ordnance. The operational contracts were worth almost $22.5 million.[47]

The international NGOs do not currently have any of the UNMAS operational contracts. They indicated that the requirements of UNMAS contracts make it difficult for them to tender,[48] and they largely rely on bilateral donor support.

27 Email from Eric Okoth, Country Director, MAG, 20 March 2023.

28 Ibid.

29 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

30 Ibid.

31 Ibid.

32 Email from Eric Okoth, MAG, 20 March 2023.

33 Ibid.

34 Emails from Eric Okoth, MAG, 12 and 20 June 2023.

35 Email from Clement Suwali, Operations Manager, DRC, 2 May 2023.

36 Email from Lisa Müller-Dormann, DRC, 27 March 2023.

37 Interview with Lisa Müller-Dormann, DRC, 21 May 2023; and email from Hajrudin Osmanovic, DCA, 13 June 2023.

38 "The Sustainable Development Outcomes of Mine Action in South Sudan", GICHD, 10 July 2023, at: https://bit.ly/3R2h6hP.

39 Email from Sasha Logie, GICHD, 12 June 2023.

40 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

41 Interview with Lisa Müller-Dormann, DRC, 21 May 2023; and remarks by Matt Williams, UNMAS, at a meeting with UNMAS, Juba, 30 May 2023.

42 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

43 Updated Work Plan for January 2022 to June 2026, submitted to the APMBC Article 5 Committee, dated 31 April 2022, p. 35.

44 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Matt Williams, UNMAS South Sudan, 19 June 2023.

45 Updated Work Plan for the period from January 2022 to June 2026, submitted to the APMBC Article 5 Committee, dated 31 April 2022, p. 34.

46 Zoom interview with Fran O'Grady, UNMISS, 7 March 2023; and email from Matt Williams, UNMAS South Sudan, 3 May 2023.

47 Email from Matt Williams, UNMAS South Sudan, 3 May 2023.

48 Interviews with Andrew Steele, Logistics Manager, MAG, 20 May 2023; Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, Country Director, DCA, 26 May 2023.

In recent years, the South Sudan Humanitarian Fund, run by the UN Office for the Coordination of Humanitarian Affairs (OCHA), has not allocated any funding to mine action survey or clearance operations.[49] By May 2023, both DCA and DRC were facing funding shortfalls.[50]

South Sudan does not have a mine action resource mobilisation strategy. The authorities have indicated that they will be advocating for much needed donor support for the mine action sector.[51] The GICHD will support the NMAA in developing a new Mine Action Strategy to replace the 2018–22 strategy,[52] which is expected to include a resource mobilisation strategy.[53] The UNMAS Chief of Mine Action did, however, conduct a range of advocacy activities in support of funding for international and national NGOs in 2022. These included presenting to key Juba-based donors and to UN Member State representatives at UN headquarters in New York, as well as advocating to UNMISS leadership.[54]

ENVIRONMENTAL POLICIES AND ACTION

UNMAS has incorporated environmental considerations into mine action operations, in collaboration with the NMAA, providing guidance in the National Technical Standard and Guidelines (NTSGs).[55] South Sudan has an NTSG on Health and Safety, Social and Environment (HSSE), which was introduced in 2018, in line with IMAS 07.13 on Environmental Management in Mine Action.[56] This is updated annually to incorporate lessons learned; in 2022, amendments were made to the NTSG on conducting environmentally compliant disposal and the treatment of "Free From Explosives" metal scrap.[57]

Implementing partners in South Sudan establish their own standard operating procedures (SOPs) and policies based on the NTSG to safeguard the environment. When survey and clearance are completed, an area should be restored in accordance with the wishes of the local community. At a minimum, restoration should include the removal of large items of scrap metal, the filling in of any pits or craters due to EOD, and the fencing off of any areas where there may be residual non-explosives hazardous materials left in the ground.[58] To minimise the impact of mine action activities on the environment, UNMAS continued to sensitise mine action operators in South Sudan on environmental considerations in planning demolitions and in post-demolition procedures, in mechanical operations, and in conducting vegetation clearance.[59]

On MAG's worksites and temporary accommodation facilities, the NTSGs are reported to be strictly followed with robust sanitary and waste management systems and environmental considerations integrated into daily operations and programming. MAG employs a comprehensive post-demolition site remediation in which teams leave the ground as close to its original state as possible. Mechanical assets and road transport are only used when necessary. MAG's community liaison teams maintain contact with community leaders to inform them of operations and provide an opportunity for feedback, including about possible environmental damage.[60] DRC's SOP limits the felling of trees above a certain height and supports the restoration of soil following demolitions, while its bases in Magwi use solar power.[61] In 2023, DCA initiated an organisation-wide environmental assessment in South Sudan,[62] which includes an assessment of the environmental impact of clearance, and the development of a self-assessment tool to minimise environmental degradation.[63]

49 Remarks by Matt Williams, UNMAS, at a meeting with UNMAS, Juba,30 May 2023.

50 Interviews with Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, DCA, 26 May 2023.

51 Presentation by South Sudan, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.

52 Remarks by Fran O'Grady, UNMAS, at a meeting with UNMAS, Juba, 30 May 2023.

53 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

54 Ibid.

55 Ibid.

56 Voluntary Article 7 Report (covering 2020), Form I.

57 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

58 Article 7 Report (covering 2021), Form B.

59 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

60 Email from Eric Okoth, MAG, 20 March 2023.

61 Email from Lisa Müeller-Dormann, DRC, 27 March 2023.

62 Interview with Janardhan Rao, DCA, 26 May 2023.

63 Email from Hajrudin Osmanovic, DCA, 13 June 2023.

GENDER AND DIVERSITY

South Sudan's second national mine action strategy for 2018–22 included a section on gender, focusing on how different gender and age groups are affected by mines and ERW and have specific and varying needs and priorities. Guidelines on mainstreaming gender considerations in mine action planning and operations in South Sudan are also incorporated in the strategy, including on the collection of data disaggregated by sex and age.[64] UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point, who also encourages the implementing partners to provide equal employment opportunities and consider the role and the behaviour of male and female beneficiaries when planning, implementing, and managing projects.[65] UNMAS has said that, in theory, employment opportunities for qualified men and women in survey and clearance teams across the organisations operating in South Sudan are equal. However, redressing the gender balance is a long-term challenge and a work in progress.[66]

South Sudan's NTSGs require all community liaison teams to tailor activities on the basis of the gendered needs of beneficiaries, and to address the specific risks faced by women and girls.[67] All teams are reportedly gender balanced in composition and trained to be inclusive, for example by ensuring outreach through NTS and risk education is done separately for different age and gender groups, and taking into consideration local cultural practices.[68] Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by local communities.[69]

But UNMAS has indicated that ethnic identity continues to limit the participation of different ethnic minority groups in survey and clearance operations across the country.[70] Community liaison staff capture the needs of different groups including vulnerable and minority groups such as internally displaced persons (IDPs) and refugees, which feeds into operational priorities.[71] UNMAS has reported, though, that task prioritisation is predominantly dependent on security and that resources are concentrated on tasks within limited geographical areas.[72]

All UNMAS operational teams are mixed gender.[73] Workshops for the NMAA and mine action partners on gender equality, gender-based violence (GBV), and gender mainstreaming programming in mine action, delayed by COVID-19, are yet to take place.[74]

Among UNMAS-contracted implementing partners, through an increased focus on gender and diversity in procurement processes, female participation in technical and managerial functions is increasing,[75] though the overall proportion of female staff remains low. SafeLane Global (SLG) maintains an overall staffing ratio of 24% women in various positions, including operational staff; 16% of The Development Initiative (TDI)'s employees are women; while G4S has an overall 14% female representation in its staffing, including in operational and managerial positions.[76] There is a female Programme Manager for one G4S contract, the first time that a woman has held such a senior position within an UNMAS-contracted operator in South Sudan.

Table 3: Gender composition of mine action operators (at March 2023)[77]

	Total staff employed	Number of women employed	Staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
UNMAS	46	13	3	1	16	3
G4S*	548	75	110	13	413	62
SLG*	174	41	15	1	155	37
TDI*	69	11	16	2	42	9
MAG	141	48	35	5	109	41
DRC**	47	16	7	1	45	16

64 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.

65 Emails from Ayaka Amano, UNMAS, 2 May 2019; and Fran O'Grady, UNMISS, 9 March 2022.

66 Email from Ayaka Amano, UNMAS, 2 May 2019.

67 Ibid.

68 Ibid.

69 Email from Richard Boulter, UNMAS, 8 July 2020.

70 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

71 Ibid.

72 Email from Ayaka Amano, UNMAS, 2 May 2019.

73 Ibid.

74 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

75 Email from Matt Williams, UNMAS South Sudan, 3 May 2023.

76 Ibid.

77 Emails from Matt Williams, UNMAS South Sudan, 23 March 2023 and 2 June 2023; Eric Okoth, MAG, 20 March 2023; Lisa Müller-Dormann, DRC, 12 June 2023; and Hajrudin Osmanovic, DCA, 22 March and 13 June 2023.

Table 3 Continued

	Total staff employed	Number of women employed	Staff in managerial or supervisory positions	Women in managerial or supervisory positions	Total staff in operational positions	Women in operational positions
DCA**	42	8	6	0	6	0
Total	**1,067**	**212**	**192**	**23**	**786**	**168**

* The figures for G4S, SLG, and TDI were provided as at May 2023. ** DRC and DCA did not conduct any AP mine survey or clearance in 2022.

As regards international NGO operators, the proportion of female staff is slightly higher. As at March 2023, MAG reported that gender balance within its teams significantly improved following two female deminer-only training courses in 2022. In 2021, the first woman was awarded an EOD Level 2 qualification and received UNMAS accreditation.[78] While representation of women in managerial and supervisory positions is improving, it remains low, and women have been allocated half of the spaces on the next specialist training cycle, which will provide the skills needed for leadership and management positions.[79] MAG holds women-only focus groups to ensure that women's views are taken into consideration. It aims to recruit team members from the 60 plus ethnic groups within South Sudan and tries to ensure that at least one team member speaks the local language in areas of operation.[80]

At DRC, four in every ten members of survey and community liaison teams are female. As co-coordinator of Mine Action Sub-Cluster, DRC has been advocating for female deminers to be integrated into security sector training programmes run by UN Women.[81] Clearance teams are composed of different ethnic groups and are roving unless there are security concerns for certain ethnicities.[82] DCA's survey team is gender balanced and runs separate sessions for children and women as well as mixed groups.[83] DCA is working to include different ethnicities among team members to facilitate engagement with different communities.[84]

INFORMATION MANAGEMENT AND REPORTING

A comprehensive review of all data in South Sudan's IMSMA database began in 2018, along with re-survey of recorded SHAs and CHAs whose size was thought to be exaggerated or location misrecorded. The database review found that past efforts to upgrade the IMSMA software package had led to serious data loss, which inhibited efforts to present an accurate record of the history of mine action in South Sudan. The review resulted in significant gains in the understanding of mine and ERW contamination.

In 2021, South Sudan was supported by the GICHD to upgrade its IMSMA database to IMSMA Core,[85] and in 2022 the major transition of IMSMA information to Survey123 was completed.[86]

South Sudan has submitted an Article 7 report every year since 2012. Its most recent report, dated 30 April 2023, only addressed the "Progress and Challenges of Victim Assistance", and did not contain any data on AP mine contamination or release of mined area.[87]

PLANNING AND TASKING

The GICHD will support the NMAA to develop a new mine action strategy in 2023.[88] South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the GICHD and using funding from Japan, had three strategic goals:[89]

78 Email from Lisa Müller-Dormann, then MAG, 22 March 2022.

79 Ibid.

80 Ibid.

81 Email from Lisa Müller-Dormann, DRC, 27 March 2023

82 Ibid.

83 Email from Hajrudin Osmanovic, DCA, 14 March 2023.

84 Ibid.

85 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Sasha Logie, GICHD, 21 April 2022.

86 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

87 Article 7 Report (covering 2022).

88 Remarks by Fran O'Grady, UNMAS, at a meeting with UNMAS, Juba, 30 May 2023.

89 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018; and Richard Boulter, UNMAS, 6 June 2018.

- Advocacy and communication of South Sudan's mine/ERW problem continues through national and international awareness-raising and adoption and implementation of international conventions to facilitate a mine- and ERW-free South Sudan.
- The size of the mine/ERW contamination area is clarified and confirmed and the problem is addressed through appropriate survey and clearance methods, ensuring safe land is handed back to affected communities for use.
- Safe behaviour is promoted among women, girls, boys, and men to reduce mine/ERW accidents and promote safe livelihood activities.

The operational focus for 2021–22 was on securing safe access and creating a more secure environment for affected communities and returnees by conducting survey, mechanical and manual area clearance, and road clearance.[90]

In its revised 2020 extension request, South Sudan presented a work plan through to 2026, which was updated in 2022.[91]

The updated work plan acknowledged that to meet the July 2026 Article 5 deadline, South Sudan would need further support to reconfigure and expand its existing clearance capacity, and to adapt methodologies to the changing security and environmental landscape.[92] It also included the following assumptions: access would not hampered by insecurity or flooding; sufficient funding would be available; few additional minefields would be discovered; and clearance rates would be sustained.[93]

The updated work plan from April 2022, indicated the need for detailed resurvey of a high number of overestimated hazards. Of the 114 recorded hazardous areas then remaining (65 CHA and 49 SHA) covering 7.4km^2, 38 (covering almost 4.12km^2) were to be re-surveyed; 33 (covering 0.87km^2) required manual clearance, and 43 (covering 2.36km^2) required mechanical clearance.[94] In 2022, South Sudan estimated it would clear 2.73km^2 of AP mined area.[95] However only 0.28km^2 was cleared, although another 2km^2 of AP mined area was cancelled through NTS.[96]

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

South Sudan's NTSGs, which outline the technical requirements expected of all demining operators working in South Sudan, are adapted from the IMAS. The NTSGs are annually reviewed and revised by UNMAS and the implementing partners and then approved by the NMAA,[97] taking into account any lessons learned during the year and addressing any changes in IMAS.[98] The standards and guidelines are said to be fully adapted to the local context for survey and clearance.[99]

In 2022, standards for a new clearance method—broadly termed manual linear-section-based methodology by UNMAS—were developed and added.[100] This approach involves clearance being conducted sideways along a baseline rather than, as in conventional clearance, away from the baseline.[101] UNMAS states that it has employed this model for reasons of efficiency on the basis that dedicated detector-search deminers can conduct uninterrupted detector search in a linear fashion throughout the work day, while support deminers conduct other preparatory and follow-up activities, such as vegetation cutting and removal, search lane set-up, and signal investigation. Additional advantages relate to quality management, command and control, and a comfortable working position for deminers. UNMAS will assess the effectiveness of this approach in the coming months to ensure the efficiency gains are as expected.[102]

UNMAS noted that the NTSGs require all mine action teams to conduct regular internal quality assurance (QA), along with QC sampling of 10% of each area cleared.[103] The minimum frequency for the organisational senior management internal quality assurance visits to each team was set at one per month in 2021, and a standardised scoring matrix introduced for the EOD written examination.[104]

90 Email from Fran O'Grady, UNMISS, 9 March 2022.

91 Updated Work Plan for January 2022 to June 2026, dated 31 April 2022.

92 Ibid., p. 4.

93 Ibid., p. 34.

94 Ibid., p. 10.

95 Ibid., pp. 12–13.

96 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

97 Article 7 Report (covering 2019), Form 4.

98 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

99 Ibid.

100 Ibid.

101 Email from Matt Williams, UNMAS South Sudan, 25 July 2023.

102 Emails from Matt Williams, UNMAS South Sudan, 14 and 16 August 2023.

103 Email from Ayaka Amano, UNMAS, 2 May 2019.

104 Email from Fran O'Grady, UNMISS, 9 March 2022.

OPERATORS AND OPERATIONAL TOOLS

Clearance teams in South Sudan are normally accredited for and deployed to a variety of tasks, including CMR, AP mine and AV mine clearance, EOD, and EORE. None is exclusively allocated to AP mine activities. All teams, except four NTS teams (see Table 4), are accredited to conduct multiple mine action activities, including clearance.[105] Among international NGOs, only MAG conducted any release of AP mined area in 2022, clearing mines for the first three months of the year before focusing on battle area clearance, due to the fact that CMR poses a greater threat to local populations.[106]

Table 4: Operational NTS capacities deployed in 2022[107]

Operator	Teams	Total personnel	Comments
MAG	2	5	NTS/EOD spot capability
DRC*	1	8	
DCA*	1	12	
Totals	**4**	**25**	

* DRC and DCA did not conduct any NTS or TS over AP mined area in 2022.

UNMAS reported that 36 teams from three commercial companies (G4S, The Development Initiative (TDI), and SLG) and three international NGOs (DCA, DRC, and MAG) conducted survey and clearance tasks in 2022,[108] although teams were not exclusively allocated to AP mine clearance, and DCA and DRC did not conduct any mine clearance in 2022. Overall, this is an increase from 22 teams in 2021 while the number of operators stayed constant.[109] The number of operational personnel able to conduct technical survey (TS) and clearance during 2022 was 447 (see Table 5), up from 22/23 teams and 290 personnel in 2021.[110] No major changes in the number of survey or clearance personnel was expected in 2023.[111] MAG expected to deploy an additional team focused on NTS and other assessments to support its operations in 2023,[112] while in January 2023, the number of DCA teams decreased from two to one.[113] By May 2023, however, DRC and DCA were both facing funding shortfalls and the prospect of cutting staff and operations.[114] The only increase in mechanical capacity in 2022 was DCA's deployment of a MW240 from August 2022; another slight increase was expected in 2023 (one MW240 and one GCS100 are to be used by integrated clearance capacity teams).[115]

Table 5: Operational clearance capacities deployed in 2022[116]

Operator	Manual teams	Total personnel	Dogs and dog handlers	Mechanical assets
G4S	12	180	3/3	2 x TRAXX RC562
SLG	8	120	0	0
TDI	4	50	6/6	2 (1 x MW240, 1 x MW330)
MAG*	4	60	0	3 (1 x PT300, 2 x Bozena 4)
DRC**	2	20	0	0
DCA**	2	17	0	1 MW240 from August 2022
Totals	**32**	**447**	**9/9**	**8**

* MAG had six teams at the start of 2022 with 78 personnel, which decreased to four full clearance teams with 60 staff from September 2022.[117] However these teams spent only 6 weeks on minefield clearance in 2022, and were deployed on cluster munition clearance tasks for the remainder of the year.[118]

** DRC and DCA did not conduct any AP mine clearance in 2022.

105 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

106 Email from Eric Okoth, Country Director, MAG, 20 March 2023

107 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

108 Ibid.

109 Email from Fran O'Grady, UNMISS, 9 March 2022.

110 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

111 Ibid.

112 Email from Eric Okoth, MAG, 20 March 2023.

113 Email from Hajruddin Osmanovic, DCA, 22 March 2023.

114 Interviews with Lisa Müller-Dormann, DRC, 21 May 2023; and Janardhan Rao, DCA, 26 May 2023.

115 Email from Matt Williams, UNMAS South Sudan, 3 May 2023.

116 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

117 Email from Leah Grace, Program Officer, MAG, 25 April 2023.

118 Email from Greg Crowther, MAG, 4 October 2023.

South Sudan's revised extension request provided a detailed breakdown of the capacity needed to complete mine clearance. The NMAA indicated that it planned to deploy the full demining toolbox to address remaining contamination, including light and heavy machines, mine detection dogs (MDDs), and manual deminers equipped with appropriate detectors. In its updated work plan, the NMAA estimated that daily manual mine clearance would remain at 300m^2 per team per day with mechanical clearance estimated at 2,500m^2 per team per day.[119] Overall, it was predicted that 4,104,000m^2 would be manually cleared over five years and another 3,150,000m^2 cleared mechanically by 2026.[120]

UNMAS continued to enhance the overall survey and clearance capacity of their contracted teams in 2022 with the introduction of "manual linear-section-based methodology" for AP mine clearance, as indicated above. Three teams trained in the methodology have separate responsibilities so that a number of "support" deminers focus exclusively on preparatory work (vegetation cutting, marking, and signal investigation), while "mapping" deminers perform uninterrupted detector search throughout working hours.

The three teams accredited to use this method were familiarising themselves with the approach in 2022 and positive results are expected in 2023. This built on initiatives in 2021 when UNMAS contracted an additional eight 15-lane demining teams, bringing the total to sixteen, exceeding its target in the revised Article 5 extension request.[121] UNMAS planned for up to 25 teams with 15-lane capacity in 2022,[122] and achieved 12 teams (8 mine action teams to June 2022, and 4 emergency response teams throughout 2022).[123] In addition, UNMAS deployed two remotely controlled TRAXX RB-56 vegetation cutters through an implementing partner, while DCA deployed a MineWolf 240 asset in 2022[124] as mentioned above.

There were two incidents in 2022 where UNMAS implementing partner demining teams were robbed at gunpoint. One resulted in the minor loss of equipment and some personal belongings and the other involved the loss of demining supplies, including 13 lithium rechargeable detector batteries and medical equipment. No personnel were injured in either incident.[125]

LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

LAND RELEASE OUTPUTS IN 2022

According to UNMAS, a total of just under 2.28km of AP mined area was released through survey and clearance in 2022. Of this, just under 2km^2 was cancelled through NTS and just under 0.28km^2 was cleared, with a total of 136 AP mines found and destroyed (including 12 during spot tasks). No area was reduced through TS.

SURVEY IN 2022

In 2022, 2km^2 of hazardous area was cancelled though non-technical survey (NTS), a significant increase on the 0.03km^2 cancelled in 2021 (see Table 6). As in 2021, no area was reduced through TS in 2022.[126] The large increase in mined area cancelled in 2022 was largely due to resurvey of an old hazardous area of 1,978,079m^2 which only became accessible in 2022. This was the last old, large polygon in the database.[127] As South Sudan moves towards a more accurate estimate of mine contamination, cancellation rates will slow.[128] A total of 119,133m^2 of previously unrecorded AP mine contamination was identified and added to the database.[129]

Table 6: Release of mined area through NTS in 2022[130]

State	Operator	Area cancelled (m²)
Central Equatoria	G4S	20,699
Central Equatoria	MAG	35
Jonglei	SLG	1,978,079
Total		**1,998,813**

119 Updated Work Plan for 1 January 2020 to 30 June 2026, p. 12.

120 Ibid., p. 34.

121 Email from Goran Tomasevic, UNMISS, 10 July 2022.

122 Email from Fran O'Grady, UNMISS, 9 March 2022.

123 Email from Matt Williams, UNMAS South Sudan, 25 July 2023.

124 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

125 Ibid.

126 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Matt Williams, UNMAS South Sudan, 23 March 2023.

127 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

128 Presentation by Richard Boulter, UNMAS, "South Sudan – Achieving Article Five compliance, and Delivering a Long-Term Solution", NDM-UN23, 12 February 2020.

129 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

130 Ibid.

CLEARANCE IN 2022

A total of just under 0.28km² of mined area was cleared in 2022 with 136 AP mines destroyed (including 12 during spot tasks) (see Table 7).[131] This is a slight increase on the 0.25km² of hazardous area cleared in 2021 when just 31 AP mines were destroyed during clearance and 22 during EOD spot tasks.[132]

Table 7: Mine clearance in 2022[133]

State	Operator	Area cleared (m²)	AP mines destroyed	AV mines destroyed	UXO destroyed
Central Equatoria	MAG	7,835	1	0	0
Central Equatoria	SLG	66,114	39	0	2
Jonglei	TDI	17,487	22	0	0
Northern Bahr El Ghazal	SLG	23,417	0	0	2
Upper Nile	TDI	164,234	62	0	4
Spot tasks			12	21	
Totals		**279,087**	**136**	**21**	**8**

In 2022, UNMAS reported that four hazardous areas covering 23,417m² were cleared which contained no AP mines.

There was minimal disruption to mine action activities in 2022 due to COVID-19, as most restrictions had been removed, including those relating to EORE group sessions.[134]

ARTICLE 5 DEADLINE AND COMPLIANCE

APMBC ENTRY INTO FORCE FOR SOUTH SUDAN: 9 JULY 2011

↓

ORIGINAL ARTICLE 5 DEADLINE: 9 JULY 2021

↓

FIRST EXTENSION REQUEST DEADLINE (5-YEARS): 9 JULY 2026

NOT ON TRACK TO MEET ARTICLE 5 DEADLINE
LIKELIHOOD OF COMPLETING CLEARANCE BY 2025 (OSLO ACTION PLAN COMMITMENT): LOW

Under Article 5 of the APMBC, and in accordance with the five-year extension granted by States Parties in 2020, South Sudan is required to destroy all AP mines in mined areas under its jurisdiction or control as soon as possible, but not later than 9 July 2026. It is extremely unlikely that South Sudan will meet this deadline.

For a second consecutive year, clearance of AP mines remained relatively low as land release of other explosive ordnance which posed a greater risk was prioritised (between 2018 and 2022, of the 243 explosive ordnance victims recorded in South Sudan, only three related to AP mines).[135] In line with the extension to its Article 5 deadline granted at the Eighteenth Meeting of the States Parties in 2020, South Sudan produced its first periodic updated detailed work plan in 2022. The plan sets out disaggregated contamination figures, the methodology for clearing AP mines, along with the assumptions on which the plan is based and attendant risks. Although it maintains it can meet the new Article 5 deadline of 26 July 2026, South Sudan is clear about the challenges it faces, including insecurity; extreme weather conditions; a reduction in funding; and economic shocks and inflationary pressures.[136]

131 Ibid.

132 Email from Fran O'Grady, UNMISS, 9 March 2022; and Article 7 Report (covering 2022), p. 9.

133 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

134 Ibid.

135 Ibid.

136 Updated Work Plan for January 2022 to June 2026, pp. 35–36.

South Sudan reported in its extension request that insecurity has been the greatest impediment to fulfilling its clearance obligations. The situation remains unpredictable and sporadic fighting continues. This violence, as well as intercommunal conflict, and banditry has persistently inhibited the deployment of mine clearance teams and has been an obstacle to a countrywide survey.[137] The effects of climate change are another major obstacle. In 2021, South Sudan had its worst ever recorded flooding, after three years of record rainfall, making a number of minefields inaccessible to the demining teams, [138] and some contaminated areas remain underwater.[139] Moreover, the funding outlook over coming years is not promising, with funding from UNMISS and other donors very likely to decline. While there have been some positive developments in line with the commitments in the extension request, given the overall context, it is improbable that South Sudan will meet its Article 5 deadline of July 2026.

Table 8: Five-year summary of AP mine clearance

Year	Area cleared (km^2)
2022	0.28
2021	0.25
2020	0.71
2019	1.00
2018	2.08
Total	**4.32**

PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

There has been no progress with developing an independent national capacity for clearing residual contamination. However, as indicated above, an EOD mobile team within the national authority was trained and accredited during an eight-month project that concluded in March 2022.[140] UNMAS fielded 24 commercial demining teams, employing national deminers, with four teams led by national team leaders. The three international NGOs (DCA, DRC, and MAG) fielded another 12 national demining teams.[141] Furthermore, South Sudan has indicated that it would seek funding to enable an independent entity – hopefully an international NGO – to train and equip the NMAA in taking the lead in coordinating the response to new reports of hazardous items.[142]

137 Revised 2020 Article 5 deadline Extension Request, p. 16; and email from Goran Tomasevic, UNMISS, 10 July 2022.

138 Email from Fran O'Grady, UNMISS, 9 March 2022; and UN News, "Dire impact from floods in South Sudan as new wet season looms", at: https://bit.ly/3NSH7M8.

139 Updated Work Plan for January 2022 to June 2026, p. 8; and email from Matt Williams, UNMAS South Sudan, 25 July 2023.

140 Email from Matt Williams, UNMAS South Sudan, 23 March 2023.

141 Ibid.

142 Updated Work Plan for January 2022 to June 2026, p. 12.