

# SOUTH SUDAN



## CLEARING THE MINES 2022

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

### KEY DATA

#### ANTI-PERSONNEL (AP) MINE CONTAMINATION: MEDIUM

MINE ACTION REVIEW ESTIMATE

**5** KM<sup>2</sup>

AP MINE  
CLEARANCE IN 2021

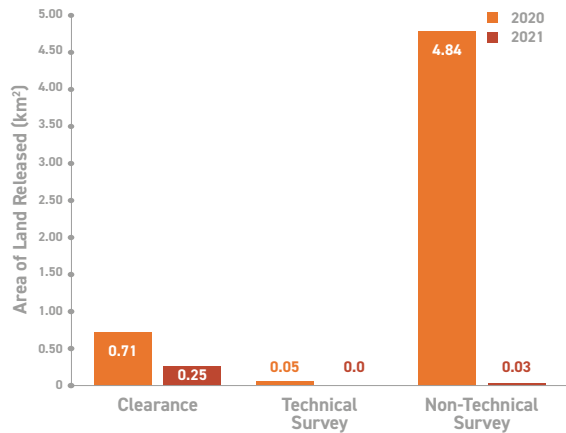
**0.25** KM<sup>2</sup>

AP MINES  
DESTROYED IN 2021

**53**

(INCLUDING 22 DESTROYED  
DURING SPOT TASKS)

### LAND RELEASE OUTPUT



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

## KEY DEVELOPMENTS

Release of anti-personnel mined area through survey and clearance fell again in 2021 compared to the previous year following a significant drop in funding for mine action and a shift in prioritisation towards other types of explosive ordnance causing higher numbers of victims. A number of revisions were made to South Sudan's National Technical Standards and Guidelines (NTSGs) in 2021, to ensure they were both in line with the International Mine Action Standards (IMAS) and adapted to the national context. South Sudan intends to clear all types of explosive ordnance contamination by July 2026 but it is currently not on track to meet this target with continued insecurity and increased flooding, including of mined areas, restricting access to contaminated areas. In addition, large amounts of previously unrecorded area are still being added to the database each year. In parallel, international funding for clearance activities has fallen significantly.

## RECOMMENDATIONS FOR ACTION

- South Sudan should increase its financial support for mine action operations as well as to the National Mine Action Authority (NMAA).
- 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.
- South Sudan should finalise its updated work plan through to 2026 and produce a revised detailed budget and annual targets for land release disaggregated type of contamination.
- South Sudan should report periodically during the extension request period on its progress in establishing a sustainable and long-term national capacity (for both demining and information management) to deal with residual contamination.
- South Sudan should finalise its resource mobilisation strategy increasing its international advocacy to attract new and former donors.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2021)	Score (2020)	Performance Commentary
<b>UNDERSTANDING OF CONTAMINATION</b> (20% of overall score)	8	8	There has been no significant change in the estimate of anti-personnel mine contamination from 2020 to 2021. Targeted re-survey to better define the estimated size of the suspected hazardous areas (SHAs) and database review began in 2018 and is ongoing, although access to some SHAs is dependent on improvements in the security situation.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	4	4	The National Mine Action Authority (NMAA) continued to face serious financial and technical limitations, preventing it from managing mine action operations effectively in 2021, with the United Nations Mine Action Service (UNMAS) still assuming that function. Funding for mine action in South Sudan dropped dramatically from more than US\$40 million in 2020 to just over \$6.4 million in 2021.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	6	6	South Sudan's second national mine action strategy for 2018–22 includes a section on gender, as do South Sudan's NTSGs. These include a focus on ensuring gender-balanced survey teams and gender- and age-sensitive data collection and community outreach. Planned workshops on gender mainstreaming were postponed due to COVID-19. SafeLane Global conducted a basic demining training course in the first quarter of 2021 where 20% of the candidates were female and Mines Advisory Group (MAG) has ring-fenced training opportunities for women and in 2021, a woman was awarded an explosive ordnance disposal (EOD) Level 2 qualification for the first time.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	7	7	The comprehensive review of all data in South Sudan's Information Management System for Mine Action (IMSMA) database which began in 2018, along with re-survey of recorded suspected and confirmed hazardous areas, has resulted in significant gains in the understanding of mine contamination. Transition to IMSMA Core started in 2021, and was ongoing as of August 2022.
<b>PLANNING AND TASKING</b> (10% of overall score)	6	6	South Sudan has a National Mine Action Strategy 2018–22, which underwent a mid-term review in 2020. South Sudan provided annual targets for land release to 2026 in its Article 5 deadline extension request, separated into manual and mechanical clearance but not disaggregated by type of mine; the updated work plan to 2026, published in 2022, rectifies this. Its Article 7 report (for 2019) contains annual targets for land release for anti-personnel mines but it was not able to meet the target for 2021.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	8	8	A number of revisions were made to South Sudan's NTSGs during 2021, including on survey, land release, quality management, accreditation of mine action organisations, and manual mine clearance. Demining teams continued to be reconfigured in 2021, increasing from eight-lane to ten- or fifteen-lane teams with a view to increasing clearance efficiency.
<b>LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE</b> (20% of overall score)	6	7	South Sudan's land release output of anti-personnel mined area fell dramatically in 2021 although this type of contamination is not being prioritised for clearance over other explosive ordnance as they pose a greater threat to life. It looks increasingly unlikely that South Sudan will meet its Article 5 deadline of July 2026.
<b>Average Score</b>	<b>6.7</b>	<b>6.9</b>	<b>Overall Programme Performance: AVERAGE</b>

## DEMINING CAPACITY

### MANAGEMENT CAPACITY

- National Mine Action Authority (NMAA)

### NATIONAL OPERATORS

- None

### INTERNATIONAL OPERATORS

- Danish Church Aid (DCA)
- Danish Refugee Council – Mine Action (DRC-MA) (previously Danish Demining Group (DDG))
- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)
- SafeLane Global

### OTHER ACTORS

- UN Mine Action Service (UNMAS)

## UNDERSTANDING OF AP MINE CONTAMINATION

As at the end of 2021, South Sudan had a combined total of 114 hazardous areas, of which 65 were confirmed hazardous areas (CHAs) and 49 were suspected hazardous areas (SHAs) covering a total area of just over 7.4km<sup>2</sup> (see Table 1).<sup>1</sup> This is a small increase in the estimated extent of contamination from 2020.<sup>2</sup> Since targeted re-survey and a comprehensive database review of all contamination data began in 2018, South Sudan has released significant areas of anti-personnel mined area.<sup>3</sup> It is expected that further contaminated area will be released through survey as, while the average task size of a confirmed mined area is less than 45,000m<sup>2</sup>, one SHA in Jonglei has an estimated size of nearly 1.98km<sup>2</sup>.<sup>4</sup>

**Table 1: Anti-personnel mined area by state (at end 2021)<sup>5</sup>**

State	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )	Total SHA/CHA	Total area (m <sup>2</sup> )
Central Equatoria	38	1,342,456	27	224,819	65	1,567,275
Eastern Equatoria	16	747,217	5	41,836	21	789,053
Jonglei	5	214,626	8	3,596,842	13	3,811,468
North Bahr El Ghazal	1	4,290	1	99,549	2	103,839
Upper Nile	3	386,259	0	0	3	386,259
Warrap	0	0	1	40,000	1	40,000
West Bahr El Ghazal	1	201,738	0	0	1	201,738
Western Equatoria	1	95,450	7	410,810	8	506,260
<b>Totals</b>	<b>65</b>	<b>2,992,036</b>	<b>49</b>	<b>4,413,856</b>	<b>114</b>	<b>7,405,892</b>

According to the United Nations Mine Action Service (UNMAS), at the end of 2021 South Sudan, also had 72 suspected and confirmed anti-vehicle mined areas, covering just under 4.2km<sup>2</sup> (see Table 2).<sup>6</sup>

**Table 2: Mined area (at end 2021)<sup>7</sup>**

Type of contamination	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )
Anti-personnel mines	65	2,992,036	49	4,413,856
Anti-vehicle mines	46	1,655,862	26	2,510,894
<b>Totals</b>	<b>111</b>	<b>4,647,898</b>	<b>75</b>	<b>6,924,750</b>

In 2017, UNMAS initiated a review of the national Information Management System for Mine Action (IMSMA) database, which led to the conclusion that the extent of much of the anti-personnel mine contamination has been over-estimated. UNMAS consequently initiated a process of targeted re-survey aimed at better defining the size of SHAs.

While significant progress has been made in defining the extent of anti-personnel mine contamination remaining, further survey is needed since SHAs make up some 60% of the contamination in the database. In 2021, survey teams identified nine previously unrecorded anti-personnel mined areas totalling 101,711m<sup>2</sup>. UNMAS reported that re-survey is an ongoing process and, as at March 2022, 38 tasks have been prioritised comprising a total area of almost 4.17km<sup>2</sup>.<sup>8</sup>

South Sudan is contaminated by anti-personnel and anti-vehicle mines as well as explosive remnants of war (ERW), including cluster munition remnants (CMR). 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. This expanded in July 2016, leading to widespread displacement, distress, and destitution.

1 Email from Fran O'Grady, Chief of Mine Action, United Nations Mission in South Sudan (UNMISS), 9 March 2022.

2 Article 7 Report (covering 2020), pp. 1–2; and email from Richard Boulter, Senior Programme Manager, UNMAS, 11 April 2021.

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

4 Article 7 Report (covering 2021), p. 8.

5 Email from Fran O'Grady, UNMISS, 9 March 2022; and Article 7 Report (covering 2021) pp. 5 and 8–9.

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

7 Ibid.

8 Ibid.

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 has improved, and there is now access to many areas that security issues previously rendered inaccessible.<sup>9</sup> However, the security situation remains fluid, with widespread intercommunal violence, banditry and

politically motivated violence affecting survey and clearance operations.<sup>10</sup> It is likely that unreported mined areas exist in areas which are currently inaccessible and there are some areas with high levels of contamination, such as Central and Eastern Equatoria, which are sparsely populated, rendering it difficult to collect and verify contamination information.<sup>11</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA)–since renamed the South Sudan National Mine Action Authority (NMAA)–was established by presidential decree in 2006 to act as the national agency for planning, coordination, and monitoring of mine action in South Sudan.<sup>12</sup> There is no national mine action legislation in place.<sup>13</sup>

In 2011, UN Security Council Resolution 1996 tasked UNMAS with supporting South Sudan in demining and strengthening the capacity of the NMAA. UNMAS and the NMAA have been overseeing mine action across the country through UNMAS's main office in Juba, and sub-offices in Bentiu, Bor, Malakal, and Wau. Together, 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.<sup>14</sup>

It is planned that the NMAA will assume full responsibility for all mine action activities throughout the country in the next four years. However, according to UNMAS, the NMAA continued to face serious financial and technical limitations preventing it from doing so effectively and accordingly, UNMAS continued with support to the NMAA during 2021.<sup>15</sup>

In addition to the training of NMAA staff in planning, quality management, and field monitoring, an NMAA mobile explosive ordnance disposal (EOD) team was trained and mentored to respond to unexploded ordnance (UXO) spot tasks and to conduct basic reporting.<sup>16</sup> In 2021, UNMAS reported that a resource mobilisation strategy was under development but, as at March 2022, this was still in progress.<sup>17</sup>

In 2021, UNMAS and Mines Advisory Group (MAG) were the co-coordinators of the mine action sub-cluster.<sup>18</sup> The sub-cluster coordinates with the national- and state-level Inter-Cluster Working Groups. This enables information to be shared on mines and UXO; for UN agencies and non-governmental organisations (NGOs) to inform mine action actors about their own priority locations for clearance; and for information to be integrated into the annual Humanitarian Needs Overview and Humanitarian Response Plan.<sup>19</sup> The subcluster meets at least once per quarter and holds ad hoc meetings as necessary; in 2021, six meetings were held.<sup>20</sup>

The Government of South Sudan should fund the costs of NMAA staff salaries and its sub-offices across the country, in Wau and Yei, although, as at March 2022, use of the Yei office continued to be suspended due to the security situation. However, South Sudan's most recent Article 7 report indicated that funding for salaries was inadequate and that salaries had not been paid for six months. Furthermore, the NMAA did not provide any funding for survey or clearance.<sup>21</sup> The government's total support was reported as below US\$100,000 for the year.<sup>22</sup>

In South Sudan's revised 2020 Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, completing all mine clearance by July 2026 was estimated to cost US\$148 million.<sup>23</sup> In 2022, the cost of all clearance (including battle area clearance) was estimated at \$143.5 million.<sup>24</sup> In 2021, South Sudan received just over US\$6.4 million for mine action from external sources, a dramatic decrease from the more than US\$40 million received in 2020.<sup>25</sup>

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 Emails from Brendan Ramshaw, Operations Manager, Danish Church Aid (DCA), 22 April 2021; and Lisa Mueller-Dormann, Programme Officer, Mines Advisory Group (MAG), 9 May 2021.

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

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

14 UNMAS, "Mine Action Portfolio 2019".

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

16 Ibid.

17 Ibid.

18 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.

19 UNMAS, "Mine Action Portfolio 2019".

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

21 Article 7 Report (covering 2021), pp. 10 and 24.

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

23 Revised 2020 Article 5 deadline extension request, p. 75.

24 Updated Work Plan for 1 January 2020–30 June 2026, as presented at the Intersessional Meetings, Geneva, 22 June 2022.

25 UNMAS, "Mine Action Portfolio 2019", pp. 20–21; and emails from Richard Boulter, UNMAS, 11 April 2021; and Fran O'Grady, UNMISS, 9 March 2022.

## ENVIRONMENTAL POLICIES AND ACTION

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South Sudan has an NTSG on Health & Safety, Social & Environment (HSSE), which was introduced in 2018 and is in line with IMAS 07.13 on Environmental Management in Mine Action.<sup>26</sup> Implementing partners in South Sudan establish their own standard operating procedures (SOPs) and policies based on the NTSGs to safeguard the environment. When survey and clearance operations are completed the area should be restored in accordance with the wishes of the local community. At a minimum, restoration should include 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 residual non-explosive, hazardous materials may be left in the ground.<sup>27</sup>

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## GENDER AND DIVERSITY

South Sudan's second national mine action strategy for 2018–22 includes 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.<sup>28</sup> 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.<sup>29</sup>

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.<sup>30</sup> All teams are reportedly gender balanced in composition and trained to be inclusive, for example by ensuring outreach through non-technical survey and risk education is done separately for different age and gender groups, and taking into consideration local cultural practices.<sup>31</sup> At the same time, UNMAS reported that task prioritisation was predominantly dependent on security and that resources were concentrated on tasks within limited geographical areas rather than on the basis of gender needs.<sup>32</sup> Ethnic identity is taken into account within survey and clearance teams to ensure safe access and acceptance by the respective local communities.<sup>33</sup>

In 2019–20, UNMAS provided workshops for the NMAA and mine action partners on gender equality, gender-based violence (GBV), and gender mainstreaming programming in mine action, with the aim of GBV prevention practices

being mainstreamed in mine action and there being equal opportunity in decision making regardless of gender.<sup>34</sup> As at June 2022, it was not known if these had yet happened. Implementation had been delayed due to COVID-19 and related restrictions.

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.<sup>35</sup> As part of its initiatives to recruit female deminers, UNMAS's implementing partner, SafeLane Global, conducted a basic demining training course in the first quarter of 2021 where 20% of the candidates were female.<sup>36</sup> In 2021, 12% of staff in operational roles were women (or, if international operators are included, 14%), while 16% of staff in managerial or supervisory positions were women.<sup>37</sup>

All of the community liaison teams within MAG are mixed gender and the organisation reports that it consults with all affected community members, including women and children. MAG also holds women-only focus groups to ensure that their voices are heard. MAG also aims to recruit team members from the more than 60 ethnic groups within South Sudan and tries to ensure that at least one team member speaks the local language of the planned area of deployment. As at March 2022, three women held managerial positions within MAG, and 35% of survey and clearance team members were women. MAG has ring-fenced training opportunities for women to improve their likelihood of securing leadership roles. In 2021, a woman was awarded an EOD Level 2 qualification for the first time and received accreditation from UNMAS. Further specific opportunities for women were to be made available in late 2022 and early 2023.<sup>38</sup>

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26 Ibid.

27 Article 7 Report (covering 2020), Form B.

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

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

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

31 Ibid.

32 Ibid.

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

34 UNMAS "Mine Action Portfolio 2019".

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

36 Email from Richard Boulter, UNMAS, 11 June 2021.

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

38 Email from Lisa Mueller-Dormann, MAG, 22 March 2022.

## 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. Through the database review it was 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 ongoing database review has, though, resulted in significant gains in the understanding of mine and ERW contamination. UNMAS informed Mine Action Review that, wherever possible, the database disaggregates mined areas, CMR-contaminated areas, and other ERW-contaminated areas, including spot tasks.<sup>39</sup>

In 2021, South Sudan was supported by the Geneva International Centre for Humanitarian Demining (GICHD) to upgrade its IMSMA database to IMSMA Core. All relevant reports, including external quality assurance, hazard/completion, and incident/accident reports were successfully transferred.<sup>40</sup>

South Sudan has submitted an Article 7 report every year since 2012. Its latest Article 7 report, covering 2021, was not available online until September 2022 despite being dated 30 April 2022.

## PLANNING AND TASKING

South Sudan's National Mine Action Strategy 2018–2022, developed with support from the GICHD and with funding from Japan, was officially launched in September 2018.<sup>41</sup>

The strategy has three goals with related targets:<sup>42</sup>

**Strategic Goal 1:** 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.

**Strategic Goal 2:** 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.

**Strategic Goal 3:** Safe behaviour is promoted among women, girls, boys, and men to reduce mine/ERW accidents and promote safe livelihood activities.

A mid-term strategic review of South Sudan's national strategy was conducted in January 2020 supported by the GICHD. National and international stakeholders were brought together in Juba to determine progress, discuss challenges, and identify the best way forward.<sup>43</sup> The results of the review were considered when elaborating the operational clearance plan for 2020–21 by adopting a pragmatic approach to prioritisation and focusing on efficient deployment of resources. 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.<sup>44</sup>

In its revised 2020 extension request South Sudan presented a work plan through to 2026, which was updated in 2022.<sup>45</sup> The amount of hazardous area reported in 2022 (114 "hazards" covering 7.4km<sup>2</sup>) is to be addressed in the following manner: 38 hazards (almost 4.17km<sup>2</sup>) are to be surveyed; 33 hazards (0.87km<sup>2</sup>) require manual clearance, and 43 hazards (2.36km<sup>2</sup>) require mechanical clearance.<sup>46</sup> The work plan acknowledges the high number of overestimated hazards and that 56% of the remaining threat (the 38 hazards covering almost 4.17km<sup>2</sup>) need detailed non-technical survey. The plan also makes clear that estimated progress is based on predicted clearance rates and homogenous minefield sizes. Furthermore, it is only an indication of likely progress, which will be affected by external factors such as security, flooding, clearance capacity, and funding. The work plan puts the overall cost of meeting the 2026 Article 5 deadline at \$143.5 million (including all mine and battle area clearance) and indicates that the revision of the work plan is ongoing.<sup>47</sup> The Government of South Sudan has not allocated any budget for the implementation of the work plan.<sup>48</sup>

South Sudan's Article 7 report (covering 2019) contained annual targets for release of all areas containing anti-personnel mines to 2026. The projected land release target for 2021 was 1.83km<sup>2</sup> with South Sudan releasing only 0.28km<sup>2</sup>.<sup>49</sup>

39 Email from Ayaka Amano, UNMAS, 2 May 2019; and 2020 Article 5 deadline extension request, p. 9.

40 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Sasha Logie, Country Focal Point, GICHD, 21 April 2022.

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

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

43 Email from GICHD, 29 June 2021.

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

45 Updated Work Plan for 1 January 2020–30 June 2026, as presented at Intersessional Meetings, Geneva, 22 June 2022.

46 Ibid.; and email from Goran Tomasevic, UNMISS, 23 August 2022.

47 Updated Work Plan for 1 January 2020–30 June 2026, as presented at Intersessional Meetings, Geneva, 22 June 2022.

48 Article 7 Report (covering 2021), p. 10.

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

In its 2020 Article 5 deadline Extension Request, South Sudan indicated that it intended to address all contamination, including from anti-vehicle mines, CMR, and other ERW, by its 2026 Article 5 deadline. To that end, aside from those tasks where specific humanitarian interventions are planned, the intention was to be pragmatic in the sequencing of tasks and to deploy clearance teams through a prioritisation process that aims to balance security, logistical requirements, and concentration of effort.<sup>50</sup> In the updated 2020–26 work plan, as indicated above, South Sudan highlighted issues that will impede its ability to meet its Article 5 deadline, which it had outlined in the 2020 extension request – limited funding, access restrictions due to lack of security, road conditions, and flooding.<sup>51</sup>

## 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.<sup>52</sup> In 2021, revisions were made to a number of NTSGs in consultation with implementing partners. Reporting procedures were improved in the NTSG on survey; the land release NTSG was amended to align with the updated IMAS land release standard; in the quality management NTSG, the minimum frequency for organisational senior management quality assurance visits was specified, and IMSMA Core reporting introduced to external monitoring; and in the manual mine clearance NTSG, the prodding drill standard and burning of vegetation in uncleared areas were both removed from the standard.<sup>53</sup>

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.<sup>54</sup> In addition, 100% QC of all manual mine clearance was introduced as a mandatory requirement under the NTSGs 2021.<sup>55</sup>

### OPERATORS AND OPERATIONAL TOOLS

UNMAS reported that 30 teams from one international demining non-governmental organisations (MAG), and three commercial companies (G4S Ordnance Management, G4S; The Development Initiative, TDI; and SafeLane Global) conducted anti-personnel mine survey and clearance tasks in 2021. UNMAS estimated the number of operational personnel involved in anti-personnel mine survey and clearance at peak capacity at 378 during the year (see Table 3). The teams were not deployed exclusively onto anti-personnel mined area, but also conducted EOD and/or non-technical survey.<sup>56</sup>

**Table 3: Operational clearance capacities deployed in 2021<sup>57</sup>**

Operator	Manual clearance teams	Total clearance personnel	Dog teams (dogs and handlers)	Mechanical assets
G4S QRT	6	48	0	0
G4S MTT	8	120	0	0
G4S ICC	2	20	0	2
TDI RACC	2	30	6	0
MAG MTT	4	40	0	0
SafeLane Global MTT	8	120	0	0
<b>Totals</b>	<b>30</b>	<b>378</b>	<b>6</b>	<b>2</b>

MTT = Multi-Task teams QRT = Quick Response Teams ICC = Integrated Clearance Capacity  
RACC = Route Assessment and Clearance Capacity

South Sudan's revised extension request provides a detailed breakdown of the capacity needed to complete mine clearance. South Sudan plans to deploy the full demining toolbox to address the remaining contamination, including light and heavy machines, mine detection dogs (MDDs), and manual deminers equipped with appropriate detectors.

50 2020 Article 5 deadline Extension Request, p. 64.

51 Updated Work Plan for 1 January 2020–30 June 2026, as presented at Intersessional Meetings, Geneva, 22 June 2022.

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

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

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

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

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

57 Emails from Fran O'Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022. MAG reported two clearance teams totalling 20 deminers with one mechanical asset.

It is expected that operators will reconfigure their clearance teams to allow for more deminers and fewer support staff on each task to increase efficiency. From November 2020, UNMAS reconfigured eight multi-task teams from eight-lane to ten- or fifteen-lane demining teams. MAG has standardised its teams with ten deminers per team.<sup>58</sup> Before being reconfigured, demining capacity was divided into smaller mobile teams which were ideally suited to conducting survey and clearance of EOD spot tasks in an environment with widespread insecurity, but less well suited to conducting efficient clearance.<sup>59</sup> In 2021, UNMAS contracted an additional eight 15-lane demining teams, bringing the total to sixteen, exceeding its target in the revised extension request, and is considering implementing a linear, section-based manual mine clearance methodology aimed at directly improving operational efficiency in 2022.<sup>60</sup> However, these teams are not exclusively dedicated to manual anti-personnel mine clearance.<sup>61</sup> It is expected that there would be up to 25 teams with 15-lane capacity deployed in South Sudan in 2022.<sup>62</sup>

South Sudan disaggregated its mine clearance projections in its extension request into manual and mechanical clearance.

The manual clearance teams of 15-lane demining teams were expected to clear 300m<sup>2</sup> per team per day, which equates to 52,800m<sup>2</sup> per team per year. It was expected that the manual clearance teams would clear 2.94km<sup>2</sup> plus 10% additional clearance through to 2026 to account for newly identified tasks and the impacts of other unforeseen circumstances.<sup>63</sup> Mechanical clearance teams were projected to clear 2,000m<sup>2</sup> per day during the period of the extension request,<sup>64</sup> clearing 46 tasks totalling 2.41km<sup>2</sup> plus 10% area as a margin of safety.<sup>65</sup> In June 2022, in its updated work plan, the NMAA estimated that daily manual mine clearance would remain at 300m<sup>2</sup> per day with mechanical clearance estimated at 2,500m<sup>2</sup> per day.<sup>66</sup> Total manual clearance between 2020 and the end of 2025 was estimated at 5.8km<sup>2</sup> with the total areas to be cleared by mechanical clearance estimated at 4.2km<sup>2</sup> (including any new contaminated areas identified).<sup>67</sup>

In 2021, UNMAS contracted teams with all-terrain capability, consisting of four tracked and four amphibious six-wheel vehicles, to deploy to remote areas regardless of the time of the year and conduct survey and clearance.<sup>68</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2021

A total of just over 0.28km<sup>2</sup> of anti-personnel mined area was released through survey and clearance in 2021. Of this, 0.03km<sup>2</sup> was cancelled through non-technical survey and 0.25km<sup>2</sup> was cleared, with a total of 31 anti-personnel mines found and destroyed. No area was reduced through technical survey.

### SURVEY IN 2021

In 2021, 0.03km<sup>2</sup> was cancelled through non-technical survey activities and no area was reduced through technical survey (see Table 4).<sup>69</sup> This is a massive decrease in output from the 4.84km<sup>2</sup> that was cancelled through non-technical survey in 2020.<sup>70</sup> Since the review of the national database and nationwide re-survey began in 2018, annual cancellation rates through non-technical survey have been very high. However, as South Sudan moves towards an estimate of mine contamination that is more representative of the actual contamination in the country cancellation rates are slowing.<sup>71</sup>

**Table 4: Cancellation through non-technical survey in 2021<sup>72</sup>**

State	Operator	Area cancelled (m <sup>2</sup> )
Central Equatoria	DCA	1,273
Central Equatoria	G4S	5,740
Central Equatoria	MAG	750
Central Equatoria	SafeLane Global	0
Central Equatoria	TDI	19,429
Eastern Equatoria	G4S	7,350
<b>Total</b>		<b>34,542</b>

58 Email from Lisa Mueller-Dormann, MAG, 5 August 2021.

59 Revised 2020 Article 5 deadline extension request, p. 7.

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

61 Email from Richard Boulter, UNMAS, 11 April 2021.

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

63 Revised Article 5 deadline extension request, pp. 72–73.

64 Email from Richard Boulter, UNMAS, 26 August 2020.

65 2020 Article 5 deadline Extension Request, p. 63.

66 Updated Work Plan for 1 January 2020–30 June 2026, as presented at the Intersessional Meetings, Geneva, 22 June 2022).

67 Ibid.

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

69 Ibid.

70 Article 7 Report (covering 2020), p. 12.

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

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



## CLEARANCE IN 2021

A total of just under 0.25km<sup>2</sup> of mined area was cleared in 2021 with the destruction of 31 anti-personnel mines (see Table 5).<sup>73</sup> This is a substantial decrease from the 0.7km<sup>2</sup> cleared in 2020 but an increase in the amount of area cleared per mine found, from 1 mine per 3,066m<sup>2</sup> in 2020 to 1 mine per 8,061m<sup>2</sup> in 2021.<sup>74</sup>

**Table 5: Mine clearance in 2021<sup>75</sup>**

State	Operator	Area cleared (m <sup>2</sup> )	AP mines destroyed	AV mines destroyed	UXO destroyed
Central Equatoria	DCA	1,311	0	0	0
Central Equatoria	G4S	7,003	1	2	4
Central Equatoria	MAG	25,640	6	0	3
Central Equatoria	SafeLane Global	743	1	0	0
Central Equatoria	TDI	215,196	23	0	50
Eastern Equatoria	G4S	0	0	0	0
<b>Totals</b>		<b>249,893</b>	<b>31</b>	<b>2</b>	<b>57</b>

AP = Anti-personnel AV = Anti-vehicle

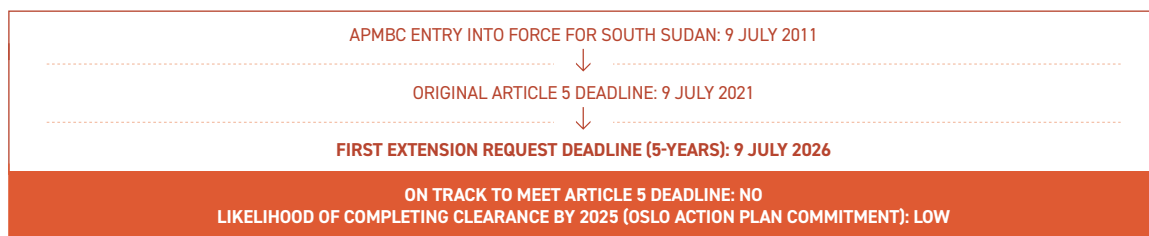
In addition, 22 anti-personnel mines and 29 anti-vehicle mines were destroyed during EOD spot tasks in 2021.<sup>76</sup>

In 2021, UNMAS reported that one hazardous area of 7,003m<sup>2</sup> was cleared with no mines found while MAG reported that three hazardous areas of 28,655m<sup>2</sup> were cleared with no mines found.<sup>77</sup>

There was an overall large overall decrease in the amount of anti-personnel mined area released: from 5.63km<sup>2</sup> in 2020 to 0.28km<sup>2</sup> in 2021. UNMAS prioritised land release of other types of explosive ordnance as they posed a greater risk to life according to incident data. For all explosive ordnance contamination there was an increase in the amount of area cleared and reduced through technical survey and a decrease in area cancelled through non-technical survey.<sup>78</sup>

COVID-19 did affect some aspects of clearance activities in 2021 mainly related to interaction with local communities, but it did not influence the outputs linked to the land release.<sup>79</sup> Survey and clearance operations were affected by the security situation with mine action teams denied access to the south, west, and north-west of Juba from April to November 2021 which resulted in the deployment of a large number of teams to the east of Juba state.<sup>80</sup> According to MAG, due to insecurity its clearance teams had to withdraw from highly contaminated areas with large hazardous areas in March 2021. These teams were then relocated to other operational areas, but other organisations were already operational and few hazardous areas were available for clearance.<sup>81</sup>

## ARTICLE 5 DEADLINE AND COMPLIANCE



<sup>73</sup> Ibid.; and Article 7 Report (covering 2022), p. 9.

<sup>74</sup> Article 7 Report (covering 2020), p. 12.

<sup>75</sup> Article 7 Report (covering 2022), p. 9; and emails from Fran O'Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022. MAG reported that it cleared 44,595m<sup>2</sup> in Central Equatoria destroying 3 AP mines, 1 AV mine, and 1 item of UXO.

<sup>76</sup> Email from Fran O'Grady, UNMISS, 9 March 2022.

<sup>77</sup> Ibid.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> Ibid.

<sup>81</sup> Email from Lisa Mueller-Dormann, MAG, 22 March 2022.

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 anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 9 July 2026. South Sudan will not meet this deadline.

Total land release of anti-personnel mined area fell by 95% in 2021 compared to the previous year, although UNMAS has explained that, according to the data, anti-personnel mines are the least significant threat to life for the people of South Sudan when compared to other types of explosive ordnance and prioritising anti-personnel mine clearance over other explosive hazards often makes “little sense” other than when treaty compliance is the sole consideration.

South Sudan released nearly 10.63km<sup>2</sup> of explosive ordnance contamination (including anti-personnel mines) during 2020. But large amounts of contaminated area are being added to the database each year.

South Sudan has categorised clearance by region and clearance method, and estimated the time needed under each method.<sup>82</sup> The plan is to structure manual mine clearance teams into larger teams to have larger clearance capacity with 15+ deminers/detectors per team. Nevertheless, South Sudan is clear about the challenges it faces in meeting its Article 5 deadline.

South Sudan reported in its extension request that insecurity has been the greatest impediment to fulfilling its clearance obligations. Since 2011, there have been numerous outbreaks of armed conflict and violence, most notably in 2013 and 2016, with sporadic fighting continuing to this day. This violence, as well as intercommunal violence, and banditry that is

prevalent in areas that lack the rule of law, has persistently inhibited the deployment of mine clearance teams and has been an obstacle to a countrywide survey.<sup>83</sup> In 2021, two mine action personnel from TDI were shot during an attack (but later recovered) while in another attack a MAG vehicle was damaged.<sup>84</sup> In addition to the threat from insecurity, the effects of climate change are also obstacles to completion for South Sudan. In 2021, South Sudan had its worst recorded flooding ever, after three years of record rainfall, making a number of minefields inaccessible to the demining teams.<sup>85</sup>

It looks highly unlikely that South Sudan will meet its Article 5 deadline of July 2026. While there have been some positive developments in line with the commitments in the extension request, as well as large amounts of new explosive ordnance contamination being added to the database every year, donor interest in South Sudan has been declining as funding is diverted towards the humanitarian crisis in Ukraine, which directly affected mine action efforts. Funding in 2021 decreased by 84% from 2020.<sup>86</sup>

**Table 6: Five-year summary of AP mine clearance**

Year	Area cleared (km <sup>2</sup> )
2021	0.25
2020	0.71
2019	1.00
2018	2.08
2017	1.71
<b>Total</b>	<b>5.75</b>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

UNMAS reported it has been working with the NMAA to develop plans for a national capacity that will be responsible for clearing residual contamination.<sup>87</sup> A pilot project to form and mentor an EOD mobile team within the national authority between August 2021 and March 2022 was successfully launched.<sup>88</sup>

82 Updated Work Plan for 1 January 2020–30 June 2026, as presented at the Intersessional Meetings, Geneva, 22 June 2022.

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

84 Emails from Fran O’Grady, UNMISS, 9 March 2022; and Lisa Mueller-Dormann, MAG, 22 March 2022.

85 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>.

86 Email from Fran O’Grady, UNMISS, 9 March 2022; and “Millions at risk in South Sudan as Ukraine war forces slashing of aid”, *The Guardian*, 14 June 2022, at: <https://bit.ly/3tCMua5>.

87 Emails from Richard Boulter, UNMAS, 22 July 2019 and 8 July 2020.

88 Email from Fran O’Grady, UNMISS, 9 March 2022.