

# SOUTH SUDAN



## CLEARING THE MINES 2021

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 2020

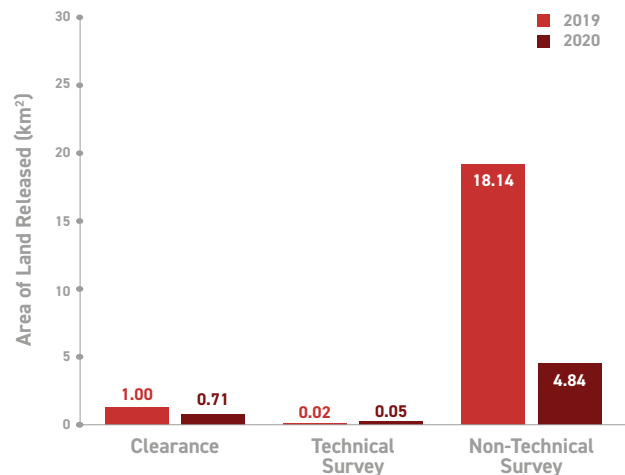
**0.71** KM<sup>2</sup>

AP MINES  
DESTROYED IN 2020

**244**

(INCLUDING 13 DESTROYED  
IN SPOT TASKS)

### LAND RELEASE OUTPUT



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

## KEY DEVELOPMENTS

Survey and clearance output fell in 2020 compared to 2019 with South Sudan facing a reduced demining season due to COVID-19 restrictions and continued insecurity restricting access to mined areas within the country. A full review of South Sudan's National Technical Standards and Guidelines (NTSGs) was conducted in 2020 with amendments made to ensure the NTSGs were both in line with International Mine Action Standards (IMAS) and adapted to the national context. In 2020, South Sudan was granted a five-year extension to its Anti-Personnel Mine Ban Convention (APMBC) Article 5 clearance deadline to July 2026 and intends to clear all types of explosive ordnance contamination within the period of the extension request.

## 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 and the plans it is putting in place to ensure that diverse needs are considered during the period of the extension request.
- South Sudan should ensure that the information management system is nationally owned and can be sustainably managed post-completion.
- South Sudan should provide an updated work plan through to 2026 matched with a revised detailed budget, considering the impact of the COVID-19 outbreak and security-related access restrictions.
- 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.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2020)	Score (2019)	Performance Commentary
<b>UNDERSTANDING OF CONTAMINATION</b> (20% of overall score)	8	8	South Sudan continues to improve its understanding of the extent of anti-personnel mine contamination since targeted re-survey and database review began in 2018. In 2020, South Sudan reduced its overall estimate of anti-personnel mine contamination and increased the proportion of CHAs from 24% of the overall total in 2019 to 40% as at end of 2020. Further re-survey is planned to confirm the true size of the last remaining inflated suspected hazardous areas (SHAs) although access is dependent on 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 2020, with the United Nations Mine Action Service (UNMAS) still assuming that function. In 2020, South Sudan received sufficient funding for mine action, but this may decrease if there are changes to the mandate of the UN Mission in South Sudan (UNMISS) as the largest donor.
<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 and there were no major changes in the proportion of women working in mine action from 2019.
<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. South Sudan submitted a timely and accurate Article 7 report covering 2020 which disaggregates by type of contamination and land release methodology and provides updates on progress.
<b>PLANNING AND TASKING</b> (10% of overall score)	6	7	South Sudan has a National Mine Action Strategy 2018–2022, which underwent a mid-term review in January 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, but it was not able to meet them in 2020.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	8	7	All South Sudan's NTSGs were reviewed in 2020 to conform with IMAS, with revisions made to the NTSGs on survey and road clearance. Demining teams began to be reconfigured in 2020 from eight-lane to ten- or fifteen-lane teams in order to increase clearance efficiency.
<b>LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE</b> (20% of overall score)	7	7	South Sudan's land release output fell dramatically in 2020 due to the COVID-19 restrictions and continued insecurity across the country. In 2020, South Sudan was granted a five-year extension to its Article 5 deadline and plans to address all types of explosive ordnance contamination within this timeframe. This may be overambitious when ongoing challenges to access to contaminated areas are considered.
<b>Average Score</b>	<b>6.9</b>	<b>6.8</b>	<b>Overall Programme Performance: AVERAGE</b>

## DEMINEING CAPACITY

### MANAGEMENT CAPACITY

- National Mine Action Authority (NMAA)

### NATIONAL OPERATORS

- None

### INTERNATIONAL OPERATORS

- Danish Church Aid (DCA)
- Danish Demining Group (DDG) (now Danish Refugee Council's Humanitarian Disarmament and Peacebuilding Sector)
- G4S Ordnance Management (G4S)
- Mines Advisory Group (MAG)
- The Development Initiative (TDI)

### OTHER ACTORS

- UN Mine Action Service (UNMAS)

## UNDERSTANDING OF AP MINE CONTAMINATION

As at the end of 2020, South Sudan had a combined total of 118 areas confirmed and suspected to contain anti-personnel mines covering a total area of almost 7.3km<sup>2</sup> (see Table 1).<sup>1</sup> This is a decrease from the 126 areas confirmed and suspected to contain anti-personnel mines covering a total area of almost 12.2km<sup>2</sup> at the end of 2019.<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, including more than 73km<sup>2</sup> cancelled through non-technical survey in 2018–20.<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 suspected hazardous area (SHA) in Jonglei has an estimated size of nearly 1.98km<sup>2</sup>.<sup>4</sup>

According to the United Nations Mine Action Service (UNMAS), at the end of 2020 South Sudan, also had 69 suspected and confirmed anti-vehicle mined areas, covering just over 4.6km<sup>2</sup> (see Table 2).<sup>5</sup>

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 may have been over-reported. UNMAS consequently initiated a process of targeted re-survey aimed at better defining the estimated 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 2020, survey teams identified five previously unrecorded minefields

totalling 54,941m<sup>2</sup>. One former anti-personnel minefield was reclassified as an anti-vehicle mined area and one former anti-tank minefield was reclassified as containing anti-personnel mines while reducing the contamination estimate by 217,904m<sup>2</sup>. In addition, eight tasks undergoing clearance were revised and expanded by a total of 686,004m<sup>2</sup>.<sup>6</sup>

South Sudan is contaminated by anti-personnel and anti-vehicle mines as well as explosive remnants of war (ERW), including 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. 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>7</sup> However, the security situation remains fluid with both banditry and politically motivated violence affecting survey and clearance operations in 2020.<sup>8</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>9</sup>

**Table 1: Anti-personnel mined area by state (at end 2020)<sup>10</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	39	1,506,060	31	238,936	70	1,744,996
Eastern Equatoria	15	745,547	7	49,186	22	794,733
Jonglei	5	213,829	8	3,596,842	13	3,810,671
North Bahr El Ghazal	0	0	1	113,862	1	113,862
Upper Nile	2	66,246	0	0	2	66,246
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>63</b>	<b>2,828,870</b>	<b>55</b>	<b>4,449,636</b>	<b>118</b>	<b>7,278,506</b>

**Table 2: Mined area (at end 2020)<sup>11</sup>**

Type of contamination	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )
Anti-personnel mines	63	2,828,870	55	4,449,636
Anti-vehicle mines	40	1,838,693	29	2,803,378
<b>Totals</b>	<b>103</b>	<b>4,667,563</b>	<b>84</b>	<b>7,253,014</b>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The South Sudan Demining Authority (SSDA)—since renamed the 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> No national mine action legislation has been adopted in South Sudan.<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 (with the NMAA) has been overseeing mine action across the country through its main office in Juba, and sub-offices in Bentiu, Bor, Malakal, and Wau. Together, UNMAS and 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 conduct data collection and the mapping of new hazardous areas.<sup>14</sup>

While it is planned that the NMAA will eventually assume full responsibility for all mine action activities, according to UNMAS the NMAA continued to face serious financial and technical limitations in 2020 preventing it from doing so effectively.<sup>15</sup> Despite a decade of international assistance, the NMAA requires further provision of substantial resources and capacity-building assistance if it is to manage the mine action programme.<sup>16</sup> UNMAS continued with capacity development of the NMAA during 2020 as NMAA officers were supported in conducting joint quality assurance (QA) visits with UNMAS during which each individual received “on the job training” and was assessed. Two NMAA officers also received sustained training in operations management, which was due to end in 2021. A resource mobilisation strategy is under development and there are plans to deploy one operational team from the NMAA to conduct explosive ordnance disposal (EOD) to manage residual contamination.<sup>17</sup>

Mines Advisory Group (MAG) also conducted capacity development of the NMAA during 2020 by supporting with project management, planning and resource mobilisation activities and providing opportunities for NMAA staff to work on demining teams to gain field experience and develop QA skills.<sup>18</sup>

In 2020, UNMAS and Danish Demining Group (DDG) were the co-coordinators of the mine action subcluster with MAG replacing DDG (now renamed Danish Refugee Council's Humanitarian Disarmament and Peacebuilding Sector) in March 2021.<sup>19</sup> The subcluster coordinates with the national- and state-level Inter-Cluster Working Groups. This enables information to be shared on mines and unexploded ordnance (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>20</sup>

In 2020, the Government of South Sudan funded the costs of NMAA staff salaries and its suboffices across the country, in Malakal, Wau, and Yei. As at April 2021, use of the Yei office continued to be suspended due to the security situation.<sup>21</sup> The NMAA did not, however, provide any funding for survey or clearance. The government's total support was reported as US\$75,000 for the year.<sup>22</sup>

In South Sudan's revised 2020 APMBC Article 5 deadline extension request, completing all mine clearance by July 2026 was estimated to cost US\$148 million.<sup>23</sup> In 2020, South Sudan received more than US\$40 million for mine action, which exceeds the costs needed if current levels of support are maintained. It is worth noting, however, that much of the funding received by UNMAS, which on average has contributed around 75% of all sectoral financial assistance, is used to support the UN Mission in South Sudan (UNMISS).<sup>24</sup> This has played an important role in the overall mine action effort, as more than 4,000km of road have been verified as being free of mines to support the mandate of UNMISS, under Security Council Resolution 2514 (2020). But it does impact prioritisation as mine action teams are deployed in the interest of UNMISS rather than to those areas that are most contaminated by mines and UXO. Going forward, as the role of UNMISS changes, it may further reduce the resources channelled to the implementation of the mine clearance effort.<sup>25</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>26</sup> UNMAS reported that the programme was also implementing the UN Gender Guidelines for Mine Action, monitored by a gender focal point.<sup>27</sup>

South Sudan's NTSGs contain provisions requiring 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>28</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, taking local cultural practices into

consideration.<sup>29</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>30</sup> Ethnic identity is considered within survey and clearance teams to ensure safe access and acceptance by the respective local communities.<sup>31</sup>

In 2019–20, UNMAS led 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 ensuring the mainstreaming of GBV prevention practices in mine action and promoting equal opportunity in decision-making.<sup>32</sup> As of April 2021, effective gender mainstreaming had been impeded by the COVID-19 pandemic and the related restrictions.<sup>33</sup>

UNMAS has said that, in theory, there is equal access in employment opportunities for qualified men and women in survey and clearance teams across the organisations

operating in South Sudan. However, redressing the gender balance is a long-term challenge and is dependent on whether new vacancies arise.<sup>34</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>35</sup> In 2020, only 7% of staff in operational roles were women, and this proportion fell to only 5% of managerial or supervisory positions among international staff, with no woman occupying a national managerial position. This situation was unchanged from 2019.<sup>36</sup>

All of MAG's community liaison teams 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 May 2020, two international staff members who hold managerial positions within MAG were women as were four national staff. Within survey and clearance operations there were three

female community liaison personnel (out of six) while 20 deminers were women.

In 2021, MAG, as part of its efforts to improve the gender balance within its teams, held its second basic deminer course for women with 16 women graduating who will become part of MAG's demining teams. MAG has noticed that communities very often nominate men as community focal points and MAG has worked with community representatives to increase the number of female and youth community focal points. In 2020 and 2021, MAG trained 39 men, 15 boys, 44 women, and 5 girls as community focal points.<sup>37</sup>

DCA reported having a gender and diversity policy and implementation plan in place and says there is equal access to employment for qualified men and women including for managerial level/supervisory positions. As at April 2021, there were two women deminers out of a total of nine, as well as one female medic and one female community liaison officer. When conducting survey and community liaison, a local translator enables DCA staff to present information in different languages/dialects.<sup>38</sup>

## 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 that are thought to be exaggerated or erroneously recorded. Through the database review it was found that past efforts to upgrade the IMSMA software package led to serious data loss, which inhibited efforts to present an entirely accurate record of the history of mine action in South Sudan. The ongoing database review has 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, and other ERW-contaminated areas, including spot tasks.<sup>39</sup>

As at May 2021, MAG and UNMAS were in the process of upgrading to tablet based electronic reporting, using Survey123. However, limited internet speeds in the field as well as in Juba have delayed the roll-out of the new system.<sup>40</sup>

South Sudan submitted a timely and accurate Article 7 report covering 2020 which disaggregated by type of contamination and provided an update on progress in land release during 2020. In addition, it submitted an initial Article 5 deadline extension request in March 2020, and a revised extension request in August 2020, which includes information on all types of explosive ordnance contamination in South Sudan, and a plan to complete clearance of all contamination by 2026. While there is some disaggregation by type of contamination and method of land release, the detailed work plan does not disaggregate by SHA and CHA and their size or by type of mined area.

## PLANNING AND TASKING

South Sudan's most recent National Mine Action Strategy 2018–2022, developed with support from the Geneva International Centre for Humanitarian Demining (GICHD) and with funding from Japan, was officially launched in September 2018.<sup>41</sup>

According to UNMAS, the strategy has three strategic 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 the plan, goals, and objectives was conducted in January 2020.<sup>43</sup> The results of the review were considered when elaborating the operational clearance plan for 2020–21. The operational focus for 2020–21 was on road clearance, with a view to creating safe access and facilitating freedom of movement, along with clearance of CMR and large anti-personnel mined areas for the benefit of returnees.<sup>44</sup>

In its revised 2020 extension request South Sudan presents a work plan through to 2026, split by region and with data disaggregated by type of contamination and classified into SHAs and CHAs. South Sudan has classified each of the remaining tasks into the proposed clearance methodology (manual clearance, mechanical clearance, road clearance,

or re-survey). In the milestones for completion section, targets for mine clearance are separated into manual and mechanical clearance but are not disaggregated by type of mine nor is there any mention of the extensive re-survey that is required.<sup>45</sup> In addition, there is a lack of clarity in the difference between tasks, minefields, and hazardous areas.<sup>46</sup>

South Sudan's Article 7 report (covering 2019) contains annual targets for release of all areas containing anti-personnel mines to 2026. The projected land release target for 2020 was 5.93km<sup>2</sup> with South Sudan releasing 5.63km<sup>2</sup> despite the effects of COVID-19.<sup>47</sup>

South Sudan intends 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 is 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>48</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 IMAS and tailored to the local context. The NTSGs are annually reviewed and revised by UNMAS and the implementing partners and then approved by the NMAA.<sup>49</sup>

In 2020, a review was conducted of all NTSGs to ensure they conform with the IMAS. Amendments were made in consultation with implementing partners. The NTSG on survey was updated to recognise that guidance around technical survey was not applicable in an environment where most minefields are characterised by nuisance minelaying rather than the more predictable minelaying that is required for "targeted" survey to be successful. Revisions were also made to the NTSG on road clearance to reflect the increased reliance on ground-penetrating radar and technical survey mine detection dogs (MDDs).<sup>50</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>51</sup> In 2020, improvements were made to the QA/QC process with reporting migrated onto the online Survey123 IMSMA platform and standardised scoring matrices developed for accreditation of team leaders and teams. Ten NMAA officers took part in joint QA visits with UNMAS during which each individual received "on-the-job training" and was assessed. Two NMAA officers also received advanced on-the-job training in operations management, which was due to end in 2021.<sup>52</sup>

### OPERATORS AND OPERATIONAL TOOLS

Operators in South Sudan in 2020 included three international demining non-governmental organisations (MAG, DDG and DCA), and two commercial companies who are UNMAS's implementing partners (G4S Ordnance Management (G4S), and The Development Initiative (TDI)). UNMAS estimated the number of operational personnel involved in anti-personnel mine survey and clearance at peak capacity at 276 during the year (see Table 4). The teams were not deployed exclusively onto anti-personnel mine they also conducted EOD, manual mine clearance and/or non-technical survey.<sup>53</sup>

**Table 3: Operational clearance capacities deployed in 2020<sup>54</sup>**

Operator	Manual clearance teams	Total clearance personnel	No. of dog teams (dogs and handlers)	Mechanical assets
G4S QRT	6	48	0	0
G4S MTT	2	16	0	0
G4S MTT 2	8	120	0	0
G4S ICC	2	20	0	2
TDI MTT	8	64	0	0
TDI RACC	2	30	6	0
TDI ICC	2	20	0	2
MAG ICC	1	10	0	0
MAG MTT	5	40	0	2
DCA MTT	1	8	0	0
DDG MTT	1	10	0	0
<b>Totals</b>	<b>38 (25*)</b>	<b>386 (276*)</b>	<b>6</b>	<b>6 (4*)</b>

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

\* Total numbers at peak capacity

South Sudan's revised extension request provides a detailed breakdown of the capacity that will be needed to achieve completion of clearance. South Sudan plans to deploy the full demining toolbox to address the remaining contamination, including light and heavy machines, MDDs, and manual deminers equipped with appropriate detectors. 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>55</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>56</sup> In 2021, UNMAS is contracting an additional eight 15-lane demining teams bringing to total to sixteen, exceeding its target in the revised extension request. However, these teams are not exclusively dedicated to manual anti-personnel mine clearance.<sup>57</sup>

South Sudan has disaggregated its mine clearance projections in its extension request into manual and mechanical clearance. The manual clearance teams of 15-lane demining teams are expected to clear 300m<sup>2</sup> per team per day, which equates to 52,800m<sup>2</sup> per team per year. It is expected that the manual clearance teams will 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>58</sup> Mechanical clearance teams cleared 3,500m<sup>2</sup> each per day for 200 days a year during a recent commercial contract deploying a MineWolf 370. It is expected that mechanical clearance teams will clear 2,000m<sup>2</sup> per day during the period of the extension request.<sup>59</sup> They are projected to clear 46 tasks totalling 2.41km<sup>2</sup> in total plus 10% area as a margin of safety.<sup>60</sup>

In 2020, UNMAS reported that South Sudan increased its use of dual-detection systems that combine ground-penetrating radar and metal-detection technologies. South Sudan also reportedly conducted research into more efficient clearance of mined roads.<sup>61</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2020

A total of just over 5.63km<sup>2</sup> of anti-personnel mine contaminated area was released through survey and clearance in 2020. Of this, 4.88km<sup>2</sup> was cancelled through non-technical survey, 0.05km<sup>2</sup> was reduced through technical survey, and 0.7km<sup>2</sup> was cleared.

### SURVEY IN 2020

In 2020, a total of 4.84km<sup>2</sup> was cancelled through non-technical survey activities in 2020 (see Table 4).<sup>62</sup> This is a 73% decrease in output from the 18.14km<sup>2</sup> cancelled in 2019.<sup>63</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>64</sup>

Reduction through technical survey rose from 19,946m<sup>2</sup> in 2019 to 48,140m<sup>2</sup> in 2020 (see Table 5).<sup>65</sup>

### CLEARANCE IN 2020

A total of just over 0.7km<sup>2</sup> was cleared in 2020 with the destruction of 231 anti-personnel mines (see Table 6).<sup>66</sup> This is a 29% decrease from the just over 1km<sup>2</sup> that was cleared in 2019 when 405 anti-personnel mines were found and destroyed.<sup>67</sup> Clearance activities were suspended from April to November 2020 due to the COVID-19 outbreak reducing the demining period in 2020 to just five months.<sup>68</sup>

**Table 4: Cancellation through non-technical survey in 2020<sup>69</sup>**

State	Operator	Area cancelled (m <sup>2</sup> )
Central Equatoria	G4S	6,000
Eastern Equatoria	G4S	400
Jonglei	TDI	133,207
Northern Bahr El Ghazal	UNMAS	0
Upper Nile	G4S	4,700,000
<b>Total</b>		<b>4,839,607</b>

**Table 5: Reduction through technical survey in 2020<sup>70</sup>**

State	Operator	Area reduced (m <sup>2</sup> )
Central Equatoria	G4S	18,344
Eastern Equatoria	G4S	3,671
Eastern Equatoria	MAG	4,229
Northern Bahr El Ghazal	TDI	21,896
<b>Total</b>		<b>48,140</b>

**Table 6: Mine clearance in 2020<sup>71</sup>**

State	Operator	Area cleared (m <sup>2</sup> )	AP mines destroyed	AV mines destroyed	UXO destroyed
Central Equatoria	G4S	203,090	98	0	15
Central Equatoria	MAG	155,419	67	2	62
Eastern Equatoria	G4S	216,962	41	0	80
Eastern Equatoria	MAG	97,744	22	0	125
Northern Bahr El Ghazal	TDI	34,979	3	0	2
<b>Totals</b>		<b>708,194</b>	<b>231</b>	<b>2</b>	<b>284</b>

AP = Anti-personnel AV = Anti-vehicle

In addition, 12 anti-personnel mines were destroyed by G4S and another by MAG during EOD spot tasks in 2020.<sup>72</sup>

UNMAS reported that in 2020 one area of 2,530m<sup>2</sup> was cleared with no mines found.<sup>73</sup>

## ARTICLE 5 DEADLINE AND COMPLIANCE



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 struggle to meet this 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 the banditry that is prevalent in areas that lack rule of law, has persistently inhibited the deployment of mine clearance teams and has been an obstacle to a countrywide survey.<sup>74</sup> In 2020, there were outbreaks of fighting across the country, but the impact was most severe in Jonglei and across Greater Equatoria, which prevented clearance teams from deploying to known tasks.<sup>75</sup>

The Commission on Human Rights in South Sudan reported in February 2021 that while there had been a reduction in hostilities at the national level there had been a massive escalation in violence locally which threatens to spiral out of control across several regions in the country.<sup>76</sup> Clearance output was further impacted in 2021 when all demining operations were suspended for security reasons in April in four key areas across Greater Equatoria.<sup>77</sup>

South Sudan has also been affected by the COVID-19 outbreak, which led the government to impose severe restrictions on travel, both domestic and international. The demining programme was suspended from April 2020 for three months. This reduction in the demining period is particularly significant for South Sudan as during the

four-month rainy season demining operations cannot take place. This meant that only five months of 2020 were operational.<sup>78</sup> It is unclear what the effects of the COVID-19 pandemic will be in 2021 and whether South Sudan will need to implement new restrictions. A partial lockdown was introduced from February to April, but this did not affect clearance operations.<sup>79</sup> There are also concerns that funding for mine action in South Sudan may be reduced as a result of the pandemic as funds are diverted to COVID-19 relief efforts both within donor countries and abroad.<sup>80</sup>

Since the database review and re-survey began in 2018, South Sudan has cancelled more than 73km<sup>2</sup> and now has the most accurate assessment so far of the extent of its anti-personnel mine contamination and the clearance required to achieve completion. Total land release from 2019 to 2020 fell by more than 70%, with demining operations impacted by COVID-19 restrictions and continued insecurity. There was also a large drop in cancellation through non-technical survey output which is expected as there are fewer errant data on the national database with an increasing proportion of areas recorded actually containing contamination. South Sudan plans to address all contamination (i.e. including anti-vehicle mines, on roads, from CMR, and other UXO) by 2026. As at May 2021, mine contamination was estimated at 11.4km<sup>2</sup> from a total contaminated area of 18.3km<sup>2</sup>.<sup>81</sup>

Currently it looks unlikely that South Sudan will meet its Article 5 deadline of July 2026. While there have been some positive developments that are in line with the commitments set out in the extension request, such as an increase in the number of 15-lane demining teams deployed, the implementation of land release targets is reliant on access to contaminated areas. There are also major assumptions



and risk factors in the extension request: that few additional minefields are recorded; that the largest recorded hazardous areas are cancelled, or drastically reduced, through re-survey; that one deminer will clear on average 20m<sup>2</sup> per day; that the reconfigured demining teams will clear 300m<sup>2</sup> per day; and that mechanical clearance teams will clear 2,000m<sup>2</sup> per day. Furthermore, the methodology previously used to clear roads was flawed with several mines discovered on roads that had been declared safe and resulting in the need for re-clearance. This has diverted resources from clearance of anti-personnel mines.<sup>82</sup>

**Table 7: Five-year summary of AP mine clearance**

Year	Area cleared (km <sup>2</sup> )
2020	0.71
2019	1.00
2018	2.08
2017	1.71
2016	2.65
<b>Total</b>	<b>8.15</b>

### PLANNING FOR RESIDUAL RISK AFTER COMPLETION

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>83</sup> As at April 2021, funding had been secured for a pilot project to develop the EOD response capacity within the NMAA, national police, and partner organisations to manage residual contamination.<sup>84</sup>

- 1 Article 7 Report (covering 2020), pp. 1–2; and email from Richard Boulter, Senior Programme Manager, UNMAS, 11 April 2021.
- 2 Article 7 Report (covering 2019), Form 4.
- 3 Revised Article 5 extension request, p. 11.
- 4 Article 7 Report (covering 2020), p. 2.
- 5 Email from Richard Boulter, UNMAS, 11 April 2021.
- 6 Article 7 Report (covering 2020), p. 3.
- 7 Revised 2020 Article 5 deadline Extension Request, p. 52.
- 8 Article 7 Report (covering 2020), p. 4.
- 9 Emails from Brendan Ramshaw, Operations Manager, Danish Church Aid (DCA), 22 April 2021; and Lisa Mueller-Dormann, Programme Officer, MAG, 9 May 2021.
- 10 Article 7 Report (covering 2020), pp. 1–2; and email from Richard Boulter, UNMAS, 11 April 2021.
- 11 Email from Richard Boulter, UNMAS, 11 April 2021.
- 12 "South Sudan De-Mining Authority", undated, at: <http://bit.ly/2Y5Eb4o>.
- 13 Email from Ayaka Amano, UNMAS, 2 May 2019; Article 7 Report (for 2020), p. 1.
- 14 UNMAS, "Mine Action Portfolio 2019".
- 15 Interview with Richard Boulter, UNMAS at the NDM-UN23 in Geneva, 14 February 2020; and email, 30 May 2019; and emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 16 Ibid.
- 17 Email from Richard Boulter, UNMAS, 11 April 2021.
- 18 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 19 Ibid.
- 20 UNMAS, "Mine Action Portfolio 2019".
- 21 Email from Richard Boulter, UNMAS, 11 April 2021.
- 22 Article 7 Report (covering 2020), Form 1.
- 23 Revised 2020 Article 5 deadline extension request, p. 75.
- 24 UNMAS, "Mine Action Portfolio 2019", pp. 20–21; and email from Richard Boulter, UNMAS, 11 April 2021.
- 25 2020 Revised Article 5 deadline Extension Request, pp. 20–21.
- 26 Emails from Tim Lardner, UNMAS, 27 February and 1 March 2018.
- 27 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 28 Ibid.
- 29 Ibid.
- 30 Ibid.
- 31 Email from Richard Boulter, UNMAS, 8 July 2020.
- 32 UNMAS "Mine Action Portfolio 2019".
- 33 Email from Richard Boulter, UNMAS, 11 April 2021.
- 34 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 35 Email from Richard Boulter, UNMAS, 11 June 2021.
- 36 Email from Richard Boulter, UNMAS, 11 April 2021.
- 37 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 38 Email from Brendan Ramshaw, DCA, 22 April 2021.
- 39 Email from Ayaka Amano, UNMAS, 2 May 2019; and 2020 Article 5 deadline Extension Request, p. 9.
- 40 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 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 "South Sudan – Achieving Article Five compliance, and Delivering a Long-Term Solution", NDM-UN23, 12 February 2020.
- 44 Email from Richard Boulter, UNMAS, 11 April 2021.
- 45 2020 Revised Article 5 deadline extension request, pp. 72–74.
- 46 2020 Ibid., pp. 55–65.
- 47 Article 7 Report (covering 2019), Form 4.
- 48 2020 Article 5 deadline Extension Request, p. 64.
- 49 Article 7 Report (covering 2019), Form 4.
- 50 Email from Richard Boulter, UNMAS, 11 April 2021; and Article 7 Report (covering 2020), p. 5.
- 51 Email from Ayaka Amano, UNMAS, 2 May 2019.
- 52 Email from Richard Boulter, UNMAS, 11 April 2021.
- 53 Ibid.
- 54 Ibid. The two G4S MTTs were contracted until June 2020 and then from July 2020 the eight G4S MTTs were deployed. Three of the mechanical assets (one from MAG and two from G4S) were only contracted until June 2020. TDI's mechanical assets were contracted to start in November.
- 55 Email from Lisa Mueller-Dormann, MAG, 5 August 2021.
- 56 Revised Article 5 deadline extension request, p. 7.
- 57 Email from Richard Boulter, UNMAS, 11 April 2021.
- 58 Revised Article 5 deadline extension request, pp. 72–73.
- 59 Email from Richard Boulter, UNMAS, 26 August 2020.
- 60 2020 Article 5 deadline Extension Request, p. 63.
- 61 Email from Richard Boulter, UNMAS, 11 April 2021.
- 62 Article 7 Report (covering 2020), p. 12.
- 63 Article 7 Report (covering 2019), Form 4; and emails from Richard Boulter, UNMAS, 8 July 2020; and Katie Shaw, MAG, 29 June 2020.
- 64 Presentation by Richard Boulter, UNMAS, "South Sudan – Achieving Article Five compliance, and Delivering a Long-Term Solution", NDM-UN23, 12 February 2020.
- 65 Emails from Richard Boulter, UNMAS, 11 April 2021 and Lisa Mueller-Dormann, MAG, 9 May 2021; Article 7 Report (covering 2019), Form 4; and emails from Richard Boulter, UNMAS, 22 July 2019; and Katie Shaw, MAG, 19 July 2019.
- 66 Article 7 Report (covering 2020), p. 12; and email from Richard Boulter, UNMAS, 11 April 2021.
- 67 Article 7 Report (covering 2019), Form 4; and emails from Richard Boulter, UNMAS, 22 July 2019; and Katie Shaw, MAG, 19 July 2019.
- 68 Email from Richard Boulter, UNMAS, 11 April 2021.
- 69 Article 7 Report (covering 2020), p. 12; and email from Richard Boulter, UNMAS, 11 April 2021.
- 70 Emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021. In South Sudan's Article 7 report covering 2020 technical survey output is reported as 11,564m<sup>2</sup>.
- 71 Article 7 Report (covering 2020), p. 12; and emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021.
- 72 Emails from Richard Boulter, UNMAS, 11 April 2021; and Lisa Mueller-Dormann, MAG, 9 May 2021.
- 73 Email from Richard Boulter, UNMAS, 11 April 2021.
- 74 2020 Revised Article 5 deadline Extension Request, p. 16.
- 75 Email from Richard Boulter, UNMAS, 11 April 2021.
- 76 UNHCR, "Despite renewed political commitment, staggering levels of violence continued across South Sudan for the second successive year, UN experts note", 19 February 2021, at: <https://bit.ly/3yU0eyx>
- 77 Article 7 Report (covering 2020), p. 4–5.
- 78 Ibid.
- 79 Email from Richard Boulter, UNMAS, 11 April 2021.
- 80 Email from Lisa Mueller-Dormann, MAG, 9 May 2021.
- 81 UNMAS, "South Sudan - IMSMA Monthly Report", May 2021, at: <https://bit.ly/3gQ9V9T>.
- 82 2020 Revised Article 5 deadline Extension Request, pp. 52–54.
- 83 Emails from Richard Boulter, UNMAS, 22 July 2019 and 8 July 2020.
- 84 Email from Richard Boulter, UNMAS, 11 April 2021.