

The Republic of South Sudan Request for an Extension of the Deadline for Completing the Destruction of Anti-personnel Mines in Mined areas in accordance with Article 5, paragraph 1 of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer Antipersonnel Mines and on their Destruction

# Submitted at the 22<sup>nd</sup> Meeting of the State Parties

Submitted to the Chair of the Committee on Article 5

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# **Abbreviations**

AP Anti-Personnel

APMBC Anti-Personnel Mine Ban Convention

AT Anti-Tank

BAC Battle Area Clearance

CM Cluster Munition

DCA Danish Church Aid

DRC Danish Refugee Council

FSD Swiss Demining Federation

GBEG Greater Bahr El Ghazal

GEQ Greater Equatoria

GICHD Geneva International Centre of Humanitarian Demining

GUN Greater Upper Nile

IMAS International Mine Action Standards

MAG Mines Advisory Group

NMAA National Mine Action Authority

NMAS National Mine Action Standards

NBEG Northern Bahr El Ghazal

NPA Norwegian Peoples Aid

NGO Non-Governmental Organization

NTS Non-Technical Survey

OAP Oslo Action Plan

OSIL Operation Save Innocent Lives

R-ARCSS Revitalized Agreement for Resolution on the Cessation of Hostilities on South Sudan

SLI Save Lives Initiative

SIMAS Sudan Integrated Mine Action Service
SPLM Sudan People's Liberation Movement

SPLM-IO Sudan People's Liberation Movement In Opposition

TDI The Development Initiative UNMAS

UNMAS United Nations Mine Action Service

UNMISS United Nations Mission in South Sudan

UXO Unexploded Ordnance

WBEG Western Bahr El Ghazal

# **Synopsis**

"Over the past two decades, significant progress has been made in mine action in South Sudan, resulting in the release of 1,323 square kilometers of explosive ordnance-contaminated land, the clearance of 4,176 kilometers of roads, and the destruction of over one million explosive items. South Sudan is challenged to request the extension to APMBC Article 5 aiming to achieve a historic milestone: declaring the country free from the threat of anti-personnel landmines by the 2030 deadline.

This request was developed collaboratively with national and international partners, reflecting the unified commitment of the mine action sector to support the Government of the Republic of South Sudan (GRSS) and National Mine Action Authority (NMAA) in meeting South Sudan's obligations under the Anti-Personnel Mine Ban Convention. Despite notable achievements, the final phase towards an antipersonel-mines-free South Sudan requires additional resources and sustained international support.

Currently, South Sudan still faces 114 identified anti-personnel minefields and 219 other hazardous tasks, collectively covering approximately twenty two square kilometers. To address this remaining challenge efficiently, the country must enhance its clearance capacities, adapt methodologies to changing security conditions and environmental challenges, and, critically, secure continued international support.

This document details South Sudan's current clearance capacities, national contributions, and the additional international support necessary to achieve the strategic goal of declaring South Sudan free from anti-personnel mines by June 2030. This is the final stretch; with sustained and targeted support, South Sudan can realize this critical milestone and secure a safer future for its citizens."

Mr. Zehrudin Sukanovic, Chief of Mine Action, UNMAS UNMISS

# I. Executive Summary



Figure 1: Administrative map of South Sudan (NMAA/UNMAS, 2025)

# Introduction

The conflict that led to the creation of South Sudan lasted for over 50 years and officially ended on 9 January 2005, with the signing of the Comprehensive Peace Agreement (CPA) between the Sudan People's Liberation Movement (SPLM) and the Government of Sudan (GoS)¹. The CPA aimed at promoting democratic governance and the sharing of oil revenues between Sudan and South Sudan. It also established a timeline to the January 2011 referendum that led to the independence of South Sudan on 9 July 2011 when South Sudan became the 193rd member state of the United Nations.

The Government of Sudan (GoS) signed the Mine Ban Treaty of Ottawa on 4 December 1997 and ratified it on 13 October 2003 when Sudan was one country. South Sudan deposited its notification of accession to the Convention on Anti-Personnel Mine Ban Convention on 11 November 2011 at the 11<sup>th</sup> Meeting of States Parties in Phnom Penh<sup>1</sup>. According to the United Nations Office of Legal Affairs, the Convention became effective for South Sudan on 9 July 2011, the date of State succession.

After acceding to the mine ban convention, South Sudan was granted a 10-year period to meet all of its obligations under the Anti Personnel Mine Ban Convention (9 July 2021), in accordance with the provisions of this convention. However, several circumstances have impeded South Sudan's progress in implementation of its obligations, including; a return to

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<sup>&</sup>quot;Sudan Comprehensive Peace Agreement 2005". Peace Accords Matrix. Kroc Institute for International Peace Studies, University of Notre Dame. Retrieved 16 July 2016

violence, general insecurity, that has affected the country for the majority of the time since independence, had had a severe impact on the clearance effort and added yet more contamination to be cleared.

As a result, a request for a 5 year extension of the deadline was submitted on 31 March 2020, at the 18th Meeting of the State Parties and subsequently approved, setting the new date to 9 July 2026. Despite significant efforts, it is clear that the country will not meet its obligations under Article 5 of the Convention that requires it to clear all anti-personnel mined areas.

This document outlines how full adherence to South Sudan's obligations under Article 5 will be achieved. It details the resources required, and the methodology that will be used to address each of the hazardous areas, (for all contamination types) that remain. It also recognizes the uncertainties that still exist and includes a provision to address those tasks that have not yet been identified but might still exist. The Government of South Sudan is committed to delivering on its obligations under the Anti-Personnel Mine Ban Convention and believes that it is possible that it may do so by 9<sup>th</sup> July 2030.

# Origin of the Article 5 Challenge

From the outset, the country faced tremendous humanitarian, development and security challenges. There were few tarred roads and long running tribal tensions which were not healed by the liberation. Inter-communal violence had broken out in several areas of the country even by the time of independence. The legacy of the conflict could be found all over the country, not only in the form of minefields, cluster strikes and mined roads, but with unexploded ordnance also ever-present. More than four thousand people had already been injured by landmines and other unexploded ordnance and many of the roads remained mined. Further adding the logistical challenges there were only two bridges across the Nile and that is in the capital of Juba. This situation remains today.

# Remaining Challenge at the beginning the previous request

South Sudan's 2020 extension request reported a total remaining Article 5 challenge consisting of 122 anti-personnel mined areas measuring 7,337,011 square metres, including 64 confirmed mined areas measuring 2,866,375 square metres and 58 suspected mined areas measuring 4,470,636 square metres.

#### Nature and extent of progress made since previous request

Since the approval of the Article 5 extension request in July 2021, 21 anti-personnel minefields measuring 3,783,602 square metres have been addressed, in the process destroying 595 anti-personnel mines. During this period, South Sudan also addressed 17 anti-tank minefields, 17 mined roads, 97 battlefields and 87 cluster munition strikes. 31.4km² of confirmed or suspected hazardous areas have been released.

Since 2021, South Sudan has continued to identify previously unknown AP mined areas, including 7 tasks measuring 140,511 square metres in 2021, 7 tasks measuring 436,764 square metres in 2022, 5 tasks measuring 301,683 square metres in 2023, and 6 tasks measuring 84,892 square metres in 2024.

Previously unknown mined areas have been identified through accidents, returnees and as the peace dividend allowed access to some of the previously inaccessible locations.

Explosive Ordnance Risk Education (EORE) has been a cornerstone of the mine action programme in South Sudan with direct delivery of risk education given to 3.69 million people across the country since the last extension request. All risk education teams are gender balanced and reach out to all demographics, access the entire community in order to understand their concerns and priorities. Since joining the Convention, there have been 21 AP

accidents with 25 victims of which 15 were injured and 10 killed and prior to November 2011 there were 1,168 AP mines accidents with 2,918 victims comprising 2,028 injured and 890 killed.

# Circumstances impeding compliance within period of extension request

The war in South Sudan was fought over many years by armies with very diverse arsenals. This resulted in a legacy of contamination that was not just limited to anti-personnel mines, but also to areas littered with cluster munitions, battlefields strewn with unexploded ordnance and many mined roads. Thus, a variety of hazards impacted roads, airstrips, key infrastructure as well as housing and agricultural land. As such, as is the case whenever these competing demands exist, it would have made no sense to solely prioritise the clearance of anti-personnel mines, and so the overall problem has been addressed in an holistic and efficient manner, rather than through clearance disaggregated by threat type to prioritise one hazard type over another.

Since 2011 there have been several outbreaks of extreme violence, most notably in 2013 and 2016, and sporadic fighting continues today. This has severely impacted upon the delivery of mine action operators, not just by inhibiting access to certain areas, but also through generating a climate of insecurity that has been prohibitive to the conduct of mine clearance operations.

There have also been technical challenges in South Sudan, most notably the presence of minimal metal anti-tank mines, predominantly laid in low densities in roads.

Despite the optimism of an independent South Sudan, almost throughout the period of its independence there has been fighting somewhere in the country, sometimes politically driven but often based on land rights or other inter-communal disputes. The divisions within the country have resulted in many parts of it being inaccessible to mine action teams for extended periods.

Compounding the difficulties of security related access restrictions, the poor state of infrastructure and seasonal rains degrade many of the roads to a point that they are either impassable or so damaged that they cannot be relied upon for a casualty evacuation. In addition, the recent years have seen severe flooding. As a result of this, demining activity in South Sudan is severely curtailed in this period to the extent that the regular demining "season", in which the majority of mine clearance takes place in South Sudan, is limited to the months of November or, in recent years, to December, through until June. This shortened demining year impedes productivity. These climatic patterns were carefully considered during the development of the workplan. Mechanical assets, which require dry conditions to operate effectively, are generally limited to deployment between December and June. In contrast, manual clearance teams can maintain productivity for up to ten months, accounting for variations in weather and accessibility factors.

The protracted civil turmoil, particularly in the period post 2013, has led to millions of South Sudanese being displaced and forced to shelter in temporary displacement camps. This displacement has led to the collapse of agricultural production and has brought much of the population to the edge of famine. This economic backdrop has understandably impacted upon the climate of support for mine action funding, as other areas of immediate support have been prioritised. Finally, the ever-present security threats have led more than a million South Sudanese to flee the country and included in those numbers who have sought safety are many trained demining personnel. To compound this further, there has been a significant climatic shock where since 2020, South Sudan has experienced worsened flooding that had not been witnessed for more than 60 years.

# Humanitarian, economic, social and environmental implications

Minefields contaminate or deny access to land that would otherwise be used productively. At times, circumstances or lack of knowledge about the presence of mines leads community members to put

themselves in danger by using or transiting through contaminated land. Minefields limit agriculture, grazing cattle, and the use of land for natural resources. In addition, minefields have been found around schools and clinics, and in a country where a significant amount of travel is done by foot, minefields make travel extremely dangerous.

# The Remaining Challenge

As of 31 December 2024, South Sudan has a remaining Article 5 challenge consisting of 114 mined areas measuring 4,943,561 square metres. In total, South Sudan is contaminated with 333 known hazardous areas with a total area of 22,339,563 square metres to be addressed. This is disaggregated as shown on Table 1 below.

Table 1: Remaining EO contamination as at 31 December 2024

| Remaining EO Contamination as at 31 December 2024 |                   |                      |  |  |  |  |  |  |  |  |  |
|---|-------------------|----------------------|--|--|--|--|--|--|--|--|--|
| Hazard Type                                       | Number of Hazards | Area of Hazards (m²) |  |  |  |  |  |  |  |  |  |
| AP Minefields                                     | 114               | 4,943,561            |  |  |  |  |  |  |  |  |  |
| AT Minefields                                     | 51                | 2,329,655            |  |  |  |  |  |  |  |  |  |
| Mined Roads                                       | 26                | 3,919,768            |  |  |  |  |  |  |  |  |  |
| Cluster Strikes                                   | 105               | 9,531,758            |  |  |  |  |  |  |  |  |  |
| Battlefields                                      | 37                | 1,614,821            |  |  |  |  |  |  |  |  |  |
| Total   | 333               | 22,339,563           |  |  |  |  |  |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

### Requested time for extension

Based on the above, South Sudan has made a thorough assessment based on the likely clearance resources available to address it and is requesting a four year extension, 9 July 2026 - 9 July 2030, to allow it to complete its clearance of all anti-personnel mined areas in the country.

# Rationale for the time requested

The Government of South Sudan is committed to the Siem Reap Angkor Action Plan and intends to clear its minefields to the fullest extent possible by 2030. The rationale for the timeframe requested is based on the belief that South Sudan now has an accurate assessment of the extent of its contamination and a clear understanding of the clearance requirement to achieve completion. The detailed rationale for the requirements for both the number and type of teams as well as the number of years they are needed for is presented in the detailed narrative.

#### Work plan

The widespread insecurity that has affected South Sudan since 2013 has led to a plethora of small mobile teams. These were ideally suited for survey work and the clearance of spot UXO tasks, but were not well suited to the clearance of minefields. This has later been addressed in the recent past by deployment of larger and more adequate teams that were formed in order to deliver a more efficient clearance capacity that is needed to meet the goals of this plan. In addition, the mechanical clearance capacity has also been increased.

This extension request is believed to be grounded in fact and based on proven clearance rates and realistic resource expectations. It is however also based on optimism and the hope that peace can prevail in the country. Without a doubt, the threat of renewed violence is the greatest threat to the plan, but that is followed by uncertainty over funding for mine action. The country remains heavily dependent upon aid and food insecurity is rife and since 2020, severe flooding has impacted over 40% of population, millions are displaced both inside and out of the country. There are therefore many competing conflicting demands and priorities on aid budgets.

Because of the logistical difficulties that are faced in South Sudan, it is necessary to approach the work plan for the remaining clearance requirement at the regional level. Thus the requirements in terms of clearance assets for each part of the country are addressed at a regional level. The table of all remaining clearance tasks can be found in Annex A. This table shows the approach to be adopted for every single area clearance task in the current South Sudan contamination database.

# Financial Resources (national and international)

South Sudan has a clear work plan to achieve its goals by 2030 but cannot envisage doing so without greater national funding and international support. The current work plan for the complete AP mines clearance of South Sudan is estimated to cost \$183.55 million with a maximum annual budget of \$41.76 million for the demining season of 2026 and continuously dropping towards the year 2030.

Since the last update to the convention, the majority of funding to support South Sudan's efforts to address mined areas is received through UNMAS/UNMISS, (about 75%), there is no certainty that the current funding levels or mandate to support Article 5 mine clearance will be sustained.

As mentioned, the largest single donor to mine action is the United Nations Mission in South Sudan whose own future is uncertain, besides the priorities of UNMISS are not directly aligned with those of this plan and thus the UNMISS funded mine action teams may be tasked for other work to support UNMISS mandate and the peace process.

# **Institutional Capacities**

In this case, there is an urgent need to build a sustainable national capacity in South Sudan. Beginning with a strongly supported National Mine Action Authority. A new Mine Action Law, passed in 2023 has provided an institutional basis for national coordination of mine action. However, the authority remains underfunded and under-resourced and efforts to advocate for greater national and international material and human resources are required.

South Sudan with the support of international partners has achieved considerable success, as demonstrated below;

- South Sudan is geographically 90.8% free of known AP mines
- 47 Payams which is 9.2 % of the country is contaminated with AP mines

Given that 90% of payams have no area clearance tasks for AP mines remaining, a strong case can be made for the **transition to a 'reactive' phase** in these payams, with the resourcing of a strong national capacity.

# Assumptions / Risks of the plan

South Sudan's plan for the clearance of contaminated areas as outlined in this extension request is based on five key assumptions:

- 1. Freedom of access, no resumption of fighting.
- 2. Sustained or increased funding.

- 3. Few additional minefields are recorded.
- 4. That most of the remaining largest recorded hazards are re-surveyed and, where applicable, cancelled, or drastically reduced, through non-technical and technical survey respectfully.
- 5. There will be no global or regional shock(s) affecting mobility of personnel like COVID-19 in 2020.
- 6. That the following clearance rates can be sustained:
  - i That manual demining rates will average 20m2 per deminer per day and that 15 lane teams will deploy and clear 300m2 per day.
  - ii That manual BAC teams will clear 1,000m2 per day (not applicable to AP threat).
  - iii That mechanical clearance teams will clear 2,000m2 per day

In line with the assumptions outlined above, the following risks have been identified, which could impact the successful completion of planned demining activities within this extension period:

- Insecurity:
- Economic:
- Environmental:
- Global Climatic Changes:
- Annual funding available for clearance operations
- Failure to reconfigure the clearance capacity:

#### II. Detailed Narrative

#### 1 Introduction

South Sudan is requesting a four-year extension in order to complete the clearance of all known anti-personnel mined areas in the country and thereby meet the obligations that are outlined in Article 5 of the Anti-Personnel Mine Ban Convention. The document summarises the work that has been undertaken so far, and how South Sudan has moved from a (pre-independence) start point, where the total contamination was estimated at more than a thousand square kilometres, to now having a reasonably well-defined picture of the remaining contamination and a clear plan for how to address it. The current understanding is that there are now just 114 anti-personnel minefields remaining as well as 219 other area clearance tasks (such as cluster strikes, mined roads and battlefields) and that the total area to be cleared is just over twenty square kilometres. In order to do this efficiently, South Sudan will need to improve operational efficiencies and expand its existing clearance capacity. The document makes clear what additional support is required in order to achieve the aim of a landmine free South Sudan by 9 July 2030.

# 2 Origin of the Article 5 implementation challenge

South Sudan became an independent country on 9 July 2011 and on its creation became a member of the Anti-Personnel Mine Ban Convention. The war that led to the creation of an independent South Sudan, had been fought at varying degrees of intensity over a period of more than forty years, and left widespread explosive contamination across the country. Many combatants had died and few records of where landmines had been planted were ever kept, meaning that there were no reliable or accurate records of contamination upon which a clearance plan could be based.

Mine action operations, that had commenced under the auspices of the former Sudan Mine Action Programme, were already well established at the time of independence, as was the South Sudan National Mine Action Authority (NMAA). A Landmine Impact Survey was conducted between 2006 and 2009 the results of which broadly reflect the details of subsequent survey and clearance tasks that followed in South Sudan. In turn, this has allowed the emphasis to be placed on the clearance of known hazards and in particular on opening up roads and infrastructure. As a result of this, minefields have continued to be recorded each year since, although the rate of discovery has dropped significantly.

Sadly, peace has seldom been universal in South Sudan, even at its creation the country was already witnessing fighting that involved several internal factions. Inter-communal fighting, often centred around grazing rights, has been a near-perennial problem. 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.

The independence war for South Sudan was in part borne out of a frustration at the inequality of wealth distribution in the former Sudan that manifested itself most visibly in the poor system of infrastructure of the south. Annual rains have all too often rendered already poor roads inoperable, to the extent that barges that take up to two months to navigate the waters of the Nile, have often proved to be the most reliable means of transport. Thus the deployment of demining teams, particularly those that rely on heavy equipment has never been easy in South Sudan, and has proved to be prohibitively expensive, both in terms of real and opportunity costs, with extended periods of potential demining time being lost to transportation. To mimimize the time lost on transportation of mechanical clearance assets along the River Nile, where possible, these machines are transported during the wettest part of the year, between

July and October. During this period, mechanical clearance operations are not feasible making it ideal window to preposition the machines in preparation for the dry season deployments.

# 3 Nature and extent of progress made: Decisions and Recommendations of States Parties

# **Previous Commitments**

South Sudan became a member of the Convention on 11 November 2011, four months after gaining its independence. It has reported regularly to the Convention ever since. This is South Sudan's second application for an extension to its Article 5 obligations.

Throughout the period of implementation of the mine action programme there have been challenges with the management of mine action related data. This has mainly been under the care of the United Nations Mine Action Service. The Information Management System for Mine Action (IMSMA) database has been used to manage all records of confirmed and suspected contamination as well as the clearance efforts that have been undertaken. Unfortunately, on two occasions efforts to upgrade the IMSMA software package led to critical data loss. Even now, these losses inhibit efforts to present an entirely accurate record of the history of mine action in South Sudan.

Nevertheless, although South Sudan does not have absolute clarity on the efforts of the past, it does consider that it has a clear perspective on the degree of remaining contamination and believes that this submission is well-grounded in fact. As such, South Sudan is well placed to comply with the Oslo Action Plan, Actions #2 and #19, as it has a reliable evidence based assessment of its contamination against which progress can be accurately measured and reported.

On 13 March 2008, Sudan declared that it had destroyed all stockpiles of anti-personnel mines.

# 4 Nature and extent of progress made: quantitative aspects

At the time that South Sudan entered into the convention only a Landmine Impact Survey<sup>2</sup> had taken place, fighting had broken out in some parts of the country and the subsequent years would reveal that much of the contamination had yet to be recorded. A comprehensive Baseline Survey was never conducted in South Sudan.

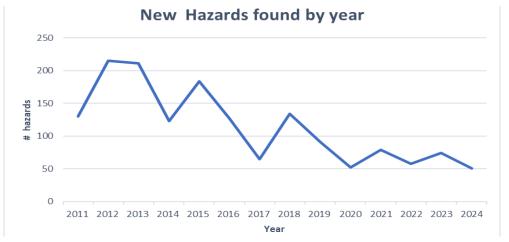


Figure 4.1: New hazardous areas found per year. (NMAA/UNMAS South Sudan IMSMA Database, 2025)

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<sup>&</sup>lt;sup>2</sup> Landmine Impact Surveys, seek to emphasise the impact of landmines upon communities rather than to define the nature and perimeters of actual hazards.

The chart presented above shows how new area clearance tasks have continued to be reported. Since South Sudan joined the APMBC, it is clear that the rate of new finds has steadily declined. The newly discovered hazardous areas continue to be found each year being predominantly represented by cluster munition strikes and battlefields, while the number of newly discovered AP minefields are relatively fewer. Since January 2011, which is taken as the effective start date for this analysis 2,243 suspect hazardous areas have been recorded, of those 1,081 tasks were confirmed and cleared and 829 were disproved and cancelled. The disaggregation of these reports by task type is as follows:

Table 4.1: Summary of all recorded area clearance tasks since 2011

| Hazard Type    | Number of<br>Hazards<br>Reported | Number of<br>Hazards<br>remaining | Number of<br>Hazards<br>Confirmed<br>and cleared | Number of<br>hazards<br>cancelled | Area of Hazards<br>actual (m²) |
|----------------|----------------------------------|-----------------------------------|--|-----------------------------------|--------------------------------|
| AP Mines       | 959                              | 114                               | 410  | 435                               | 203,064,288                    |
| AT Mines       | 276                              | 51                                | 115  | 110                               | 117,394,691                    |
| Mined Roads    | 71                               | 26                                | 34   | 11                                | 13,223,910                     |
| Battlefields   | 481                              | 105                               | 227  | 142                               | 66,856,228                     |
| Cluster Strike | 456                              | 37                                | 245  | 131                               | 46,892,341                     |
| Total          | 2,243                            | 333                               | 1,081  | 829                               | 447,431,458                    |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

In addition to these reports, there have been 17,750 separate reports of items of unexploded ordnance (often referred to as spot-UXO tasks) that have been dealt with on a case-by-case basis where 5,168,283 items of explosive ordnance were destroyed. Over the intervening years, the official estimate of contamination has been reduced to the following:

Table 4.2: Summary of all remaining area clearance tasks as at 31 December 2024

|                   | CH                | 4                       | SHA                  |                            |  |  |
|-------------------|-------------------|-------------------------|----------------------|----------------------------|--|--|
| Hazard Type       | Number of Hazards | Area of Hazards<br>(m²) | Number of<br>Hazards | Area of<br>Hazards<br>(m²) |  |  |
| AP Mines          | 71                | 2,662,879               | 43                   | 2,280,682                  |  |  |
| AT Mines          | 39                | 1,641,376               | 12                   | 688,279                    |  |  |
| Mined Roads       | 13                | 2,047,020               | 13                   | 1,872,748                  |  |  |
| Cluster Munitions | 101               | 8,694,557               | 4                    | 837,201                    |  |  |
| Battlefields      | 30                | 1,558,383               | 7                    | 56,438                     |  |  |
| Total             | 254               | 16,604,215              | 79                   | 5,735,348                  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Thus the record of clearance for the period 1 January 2011 to 31 December 2024 is:

Table 4.3: Summary of all land released (clearance and cancellation) since 2011

| Hazard Type    | # of Hazards released | Area released (m²) |
|----------------|-----------------------|--------------------|
| AP Mines       | 845                   | 208,168,506        |
| AT Mines       | 225                   | 117,900,367        |
| Mined Roads    | 45                    | 8,116,343          |
| Battlefields   | 419                   | 44,726,834         |
| Cluster Strike | 376                   | 49,141,567         |
| Total          | 1,910                 | 428,053,617        |

The summary of clearance efforts since 2011 appears below. The table shows how, on a yearly basis, the estimate of remaining contamination has reduced. Of note is the clear evidence that more than four times as much ground has been struck from the database through survey efforts (that have been cancelled or corrected errant or inflated reports) than has actually been cleared.

Table 4.4: Summary of clearance work undertaken on an annual basis 2011-2024

| Year  | Remaining<br>Area (sqm) | # of<br>Remaining<br>Hazards | # of<br>New<br>Hazards | # of<br>Cleared/<br>Cancelled<br>Hazards | New Area<br>Found (sqm) | Minefield<br>Area<br>Cleared<br>(sqm) | BAC Area<br>Cleared<br>(sqm) | Cancelled<br>Area (sqm) |
|-------|-------------------------|------------------------------|------------------------|--|-------------------------|---------------------------------------|------------------------------|-------------------------|
| 2011  | 167,086,795             | 629                          | 130                    | 150                                      | 12,133,740              | 3,077,746                             | 2,755,508                    | 128,863,250             |
| 2012  | 142,664,213             | 565                          | 215                    | 277                                      | 20,314,782              | 6,925,906                             | 6,315,900                    | 30,382,183              |
| 2013  | 121,445,220             | 559                          | 211                    | 217                                      | 19,695,147              | 6,049,239                             | 842,348                      | 34,022,552              |
| 2014  | 113,245,313             | 518                          | 123                    | 163                                      | 9,768,800               | 2,447,338                             | 3,426,967                    | 12,091,113              |
| 2015  | 105,487,599             | 532                          | 184                    | 169                                      | 11,045,197              | 3,696,337                             | 3,038,697                    | 12,067,138              |
| 2016  | 87,047,979              | 501                          | 127                    | 157                                      | 8,765,776               | 2,055,075                             | 4,590,801                    | 20,559,491              |
| 2017  | 86,813,546              | 495                          | 65                     | 68                                       | 7,741,854               | 740,928                               | 5,072,294                    | 2,007,625               |
| 2018  | 39,419,470              | 368                          | 134                    | 259                                      | 14,950,517              | 2,683,324                             | 5,842,654                    | 53,809,075              |
| 2019  | 24,612,251              | 360                          | 91                     | 100                                      | 10,429,592              | 2,222,922                             | 4,059,022                    | 19,016,059              |
| 2020  | 18,762,365              | 349                          | 52                     | 50                                       | 5,181,384               | 1,190,351                             | 2,560,344                    | 6,228,475               |
| 2021  | 18,032,334              | 345                          | 79                     | 83                                       | 4,729,712               | 2,378,667                             | 4,514,872                    | 3,445,280               |
| 2022  | 16,334,585              | 348                          | 58                     | 51                                       | 3,580,707               | 1,412,241                             | 5,740,940                    | 2,215,580               |
| 2023  | 21,803,913              | 327                          | 74                     | 84                                       | 8,528,304               | 1,207,369                             | 6,941,168                    | 178,002                 |
| 2024  | 22,339,563              | 333                          | 51                     | 82                                       | 4,883,193               | 1,514,756                             | 9,467,281                    | 396,799                 |
| Total |                         |                              | 1,594                  | 1,910                                    | 141,748,705             | 37,602,199                            | 65,168,796                   | 325,282,622             |

This clearance effort can be further disaggregated by geographical area to show the clearance work undertaken on anti-personnel and anti-vehicle mine contaminated areas;

Table 4.5: Record of all AP minefield clearance conducted by year, 2011-2024:

|       |                         | # of                         |                            | # of<br>Cleare<br>d               |                            |                                       |                            |                  | Q               | ity |        |
|-------|-------------------------|------------------------------|----------------------------|-----------------------------------|----------------------------|---------------------------------------|----------------------------|------------------|-----------------|-----|--------|
| Year  | Remaining<br>Area (sqm) | Remai<br>ning<br>Hazar<br>ds | # of<br>New<br>Hazar<br>ds | /<br>Cance<br>Iled<br>Hazar<br>ds | New Area<br>Found<br>(sqm) | Minefield<br>Area<br>Cleared<br>(sqm) | Cancelled<br>Area<br>(sqm) | AP               | AT              | СМ  | uxo    |
| 2011  | 159,825,138             | 441                          | 67                         | 85                                | 4,108,845                  | 2,973,472                             | 15,569,264                 | 1,735            | 60              | 63  | 6,569  |
| 2012  | 135,707,379             | 374                          | 114                        | 180                               | 11,292,669                 | 6,500,388                             | 27,805,982                 | 1,235            | 271             | 67  | 1,197  |
| 2013  | 112,456,597             | 347                          | 106                        | 133                               | 6,612,008                  | 4,470,412                             | 25,392,377                 | 794              | 59              | 131 | 508    |
| 2014  | 104,621,836             | 291                          | 41                         | 97                                | 3,120,701                  | 1,944,690                             | 9,010,772                  | 772 374 165      |                 | 186 | 212    |
| 2015  | 96,640,133              | 275                          | 73                         | 89                                | 4,011,962                  | 2,415,849                             | 9,577,816                  | 1,125 159        |                 | 157 | 1,477  |
| 2016  | 80,503,533              | 227                          | 25                         | 73                                | 2,506,293                  | 1,971,717                             | 16,671,176                 | 16,671,176 913 3 |                 | 217 | 1,435  |
| 2017  | 79,631,722              | 220                          | 14                         | 21                                | 1,257,148                  | 652,980                               | 1,475,979                  | 228              | 7               | 71  | 45     |
| 2018  | 29,781,285              | 147                          | 21                         | 94                                | 2,982,939                  | 2,088,026                             | 50,745,350                 | 1,162            | 38              | 180 | 367    |
| 2019  | 12,194,728              | 126                          | 11                         | 32                                | 1,575,212                  | 1,003,647                             | 18,158,121                 | 405              | 8               |     | 63     |
| 2020  | 7,278,506               | 118                          | 8                          | 12                                | 86,048                     | 708,194                               | 4,887,747                  | 231              | 2               | 197 | 87     |
| 2021  | 7,405,892               | 114                          | 7                          | 12                                | 140,511                    | 359,101                               | 43,528                     | 82               | 2               | 1   | 59     |
| 2022  | 5,415,637               | 112                          | 7                          | 5                                 | 436,764                    | 373,275                               | 1,998,813                  | 130              | 8               | 100 | 146    |
| 2023  | 5,315,105               | 114                          | 5                          | 5                                 | 301,683                    | 582,852                               | 20,527                     | 86               | 8               | 23  | 51     |
| 2024  | 4,943,561               | 114                          | 6                          | 7                                 | 84,892                     | 577,010                               | 189,441                    | 149              | 16              | 24  | 101    |
| Total |                         |                              | 505                        | 845                               | 38,517,675                 | 26,621,613                            | 181,546,893                | 8,649            | 8,649 1,166 1,4 |     | 12,317 |

Table 4.6: Record of all AT minefield clearance conducted 2011-2024

|       |                                | ш.е                                  |                            | # of<br>Cle<br>are                         |                            |                                       |                  |     |     | Qty |     |
|-------|--------------------------------|--------------------------------------|----------------------------|--|----------------------------|---------------------------------------|------------------|-----|-----|-----|-----|
| Year  | Remainin<br>g<br>Area<br>(sqm) | # of<br>Remai<br>ning<br>Hazar<br>ds | # of<br>New<br>Hazar<br>ds | d/<br>Can<br>cell<br>ed<br>Haz<br>ard<br>s | New Area<br>Found<br>(sqm) | Minefield<br>Area<br>Cleared<br>(sqm) | d Cancelled Area |     | AT  | СМ  | uxo |
| 2011  | 3,633,072                      | 111                                  | 14                         | 13   | 1,107,616                  | 104,274                               | 107,697,5<br>90  | 0   | 3   | 0   | 3   |
| 2012  | 2,277,816                      | 93                                   | 15                         | 33   | 452,310                    | 425,518                               | 1,382,048        | 0   | 9   | 0   | 16  |
| 2013  | 1,854,263                      | 87                                   | 29                         | 35   | 1,561,736                  | 1,578,827                             | 578,827 406,462  |     | 43  | 794 | 160 |
| 2014  | 1,722,349                      | 83                                   | 20                         | 24   | 674,764                    | 502,648                               | 304,030          | 0   | 5   | 0   | 13  |
| 2015  | 1,361,494                      | 75                                   | 15                         | 23   | 1,268,100                  | 1,280,488                             | 348,467          | 0   | 67  | 0   | 55  |
| 2016  | 1,008,689                      | 77                                   | 20                         | 18   | 154,757                    | 83,358                                | 424,204          | 0   | 14  | 0   | 52  |
| 2017  | 1,794,576                      | 77                                   | 15                         | 15   | 956,230                    | 87,948                                | 82,395           | 0   | 4   | 0   | 4   |
| 2018  | 3,105,517                      | 62                                   | 21                         | 36   | 2,442,913                  | 595,298                               | 536,674          | 0   | 30  | 0   | 15  |
| 2019  | 4,692,127                      | 59                                   | 22                         | 25   | 3,167,315                  | 1,161,252                             | 419,453          | 0   | 14  | 57  | 10  |
| 2020  | 4,642,071                      | 69                                   | 12                         | 3  | 2,797,077                  | 482,157                               | 279,385          | 0   | 2   | 0   | 14  |
| 2021  | 4,166,756                      | 72                                   | 15                         | 15   | 1,100,616                  | 2,019,566                             | 2,854,079        | 2   | 20  | 22  | 156 |
| 2022  | 4,649,562                      | 74                                   | 11                         | 7  | 244,481                    | 1,133,151                             | 180,840          | 148 | 57  | 1   | 300 |
| 2023  | 4,982,645                      | 76                                   | 14                         | 12   | 932,625                    | 588,347                               | 116,183          | 55  | 17  | 1   | 32  |
| 2024  | 2,329,655                      | 51                                   | 5                          | 11   | 46,268                     | 942,068                               | 0                | 18  | 17  | 2   | 18  |
| Total |                                |                                      | 228                        | 270  | 16,906,808                 | 10,984,900                            | 115,031,810      | 223 | 302 | 877 | 848 |

Table 4.7: Record of all CM/BF clearance conducted 2011-2024:

|       | Remaining<br>Area (sqm) | # of<br>Rema<br>ining<br>Hazar<br>ds | #<br>of<br>Ne    | # of<br>Clear<br>ed/<br>Canc | New Area       | BAC Area         | BAC Area                |    |    | Qty    |        |  |  |  |
|-------|-------------------------|--------------------------------------|------------------|------------------------------|----------------|------------------|-------------------------|----|----|--------|--------|--|--|--|
| Year  |                         |                                      | w<br>Haz<br>ards | elled<br>Hazar<br>ds         | Found<br>(sqm) | Cleared<br>(sqm) | Cancelled<br>Area (sqm) | АР | AT | СМ     | uxo    |  |  |  |
| 2011  | 3,628,586               | 77                                   | 49               | 52                           | 6,917,279      | 2,755,508        | 5,596,396               | 0  | 0  | 245    | 196    |  |  |  |
| 2012  | 4,679,018               | 98                                   | 86               | 64                           | 8,569,803      | 6,315,900        | 1,194,153               | 0  | 0  | 402    | 2,042  |  |  |  |
| 2013  | 7,134,360               | 125                                  | 76               | 49                           | 11,521,403     | 842,348          | 8,223,713               | 0  | 25 | 207    | 45,039 |  |  |  |
| 2014  | 6,901,128               | 144                                  | 62               | 42                           | 5,973,335      | 3,426,967        | 2,776,311               | 0  | 0  | 317    | 265    |  |  |  |
| 2015  | 7,485,972               | 182                                  | 96               | 57                           | 5,765,135      | 3,038,697        | 2,140,855               | 0  | 0  | 1,292  | 129    |  |  |  |
| 2016  | 5,535,757               | 197                                  | 82               | 66                           | 6,104,726      | 4,590,801        | 3,464,111               | 0  | 0  | 2,824  | 1,648  |  |  |  |
| 2017  | 5,387,248               | 198                                  | 36               | 32                           | 5,528,476      | 5,072,294        | 449,251                 | 0  | 0  | 993    | 791    |  |  |  |
| 2018  | 6,532,668               | 159                                  | 92               | 129                          | 9,524,665      | 5,842,654        | 2,527,051               | 0  | 1  | 3,593  | 196    |  |  |  |
| 2019  | 7,725,396               | 175                                  | 58               | 43                           | 5,687,065      | 4,117,045        | 438,485                 | 1  | 0  | 2,616  | 1,219  |  |  |  |
| 2020  | 6,841,788               | 162                                  | 32               | 35                           | 2,298,259      | 2,560,344        | 1,061,343               | 2  | 0  | 1,826  | 814    |  |  |  |
| 2021  | 6,459,686               | 159                                  | 57               | 56                           | 3,488,585      | 4,514,872        | 547,673                 | 0  | 0  | 3,038  | 1,135  |  |  |  |
| 2022  | 6,269,386               | 162                                  | 40               | 39                           | 2,899,462      | 5,646,755        | 35,927                  | 0  | 0  | 3,256  | 1,482  |  |  |  |
| 2023  | 11,506,163              | 137                                  | 55               | 67                           | 7,293,996      | 6,977,338        | 41,292                  | 0  | 0  | 2,996  | 2,883  |  |  |  |
| 2024  | 9,531,758               | 105                                  | 11               | 64                           | 867,201        | 9,462,959        | 207,358                 | 0  | 2  | 1,434  | 638    |  |  |  |
| Total |                         |                                      | 832              | 795                          | 82,439,390     | 65,164,482       | 28,703,919              | 3  | 28 | 25,039 | 58,477 |  |  |  |

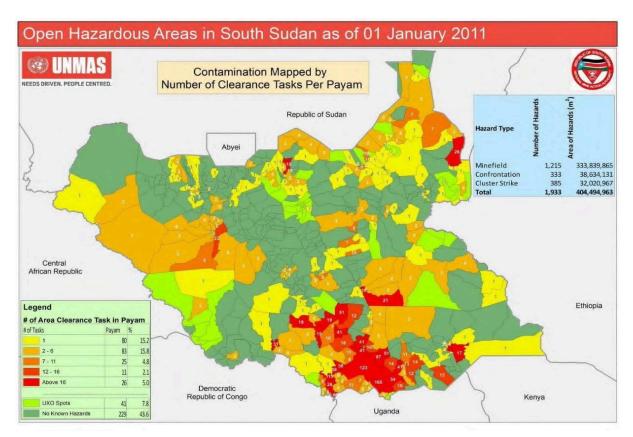


Figure 4.2: Cumulative contamination number of area clearance tasks per payam that existed, or have been identified, in South Sudan since July 2011. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

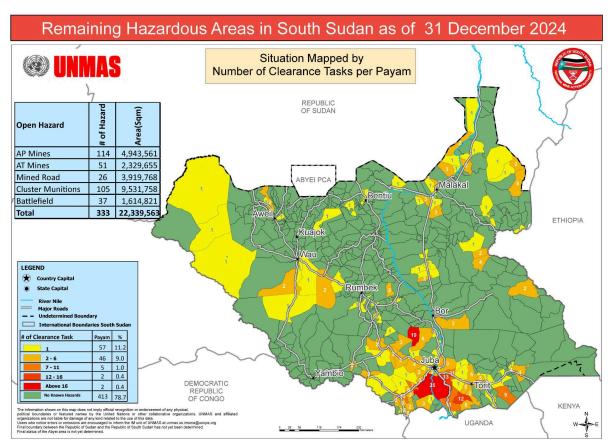


Fig 4.3: Number of open area clearance tasks per payam as at 31 December 2024. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

# 5 Complications and challenges

The war in South Sudan was fought over many years by armies with very diverse arsenals. This resulted in a legacy of contamination that was not just limited to anti-personnel mines, but also to areas littered with cluster munitions, battlefields strewn with unexploded ordnance and many mined roads. Thus, a variety of hazards impacted roads, airstrips, key infrastructure as well as housing and agricultural land. As such, as is the case whenever these competing demands exist, it would have made no sense to solely prioritise the clearance of anti-personnel mines, and so the overall problem has been addressed in an holistic and efficient manner, rather than through clearance disaggregated by threat type to prioritise one hazard type over another.

Much of the original recorded contamination consisted of what we now know to have been inflated survey estimates. This has resulted in the greatest part of the perceived problem being cancelled as a result of more informed survey processes. Every mine action team in South Sudan includes a gender balanced community liaison component, which allows for extensive interaction with all elements of affected communities. The accuracy of survey work has been further assisted by the return of previously displaced people, who were able to assist in the delivery of a more informed opinion of the true nature of contamination. Nevertheless, the clearance efforts have been directed at very real problems and have led to a year on year reduction of the mines problem in South Sudan.

Since 2011 there have been several outbreaks of extreme violence, most notably in 2013 and 2016, and sporadic fighting continues today. This has severely impacted upon the delivery of mine action operators, not just by inhibiting access to certain areas, but also through generating a climate of insecurity that has been prohibitive to the conduct of mine clearance operations.

There have also been technical challenges in South Sudan, most notably the presence of minimal metal anti-tank mines, predominantly laid in low densities in roads. This has led to the development of specialist road clearance teams and, since 2016, the introduction of dual sensor (ground penetrating radar + metal detector) detection tools. The introduction of these hybrid detectors have proved to be an efficient and effective tool for the location of plastic anti-vehicle mines and so have contributed towards increased confidence for all road users. South Sudan has also made good use of mechanical clearance and ground preparation machines to enhance the productivity of search teams.

Since 2011, the sector has cleared 8,875 anti-personnel minefields and 1,496 anti-tank minefields. These were distributed as follows:

Table 5.1: Record of all mine clearance work undertaken 2011-2024

| Ctata                      |     |            | AP N  | 1F    |       |        | AT MF |           |     |     |     |     |  |
|----------------------------|-----|------------|-------|-------|-------|--------|-------|-----------|-----|-----|-----|-----|--|
| State                      | #HA | Area(sqm)  | AP    | AT    | СМ    | UXO    | #HA   | Area(sqm) | AP  | AT  | СМ  | uxo |  |
| Central Equatoria          | 245 | 12,582,399 | 4,991 | 820   | 721   | 10,320 | 56    | 4,184,138 | 164 | 182 | 862 | 515 |  |
| Eastern Equatoria          | 99  | 7,017,891  | 2,310 | 315   | 667   | 950    | 21    | 1,146,284 | 55  | 79  | 0   | 96  |  |
| Jonglei                    | 9   | 275,350    | 317   | 0     | 0     | 7      | 7     | 33,735    | 0   | 0   | 0   | 0   |  |
| Lakes                      | 13  | 932,869    | 0     | 0     | 0     | 4      | 4     | 12,455    | 0   | 1   | 0   | 0   |  |
| Northern Bahr El<br>Ghazal | 5   | 692,255    | 6     | 0     | 0     | 59     | 0     | 2,474     | 0   | 0   | 0   |     |  |
| unity                      | 1   | 124,710    | 0     | 0     | 0     | 10     | 7     | 302,968   | 0   | 3   | 0   | 9   |  |
| Upper Nile                 | 18  | 3,909,565  | 851   | 23    | 7     | 693    | 13    | 186,023   | 0   | 6   | 0   | 3   |  |
| Warrap                     | 0   | 0          | 0     | 0     | 0     | 0      | 0     | 0         | 0   | 0   | 0   |     |  |
| Western Bahr El<br>Ghazal  | 4   | 253,183    | 60    | 3     | 22    | 254    | 5     | 395,312   | 0   | 1   | 0   | 1   |  |
| Western Equatoria          | 22  | 833,391    | 114   | 5     | 0     | 20     | 3     | 104,329   | 0   | 1   | 0   | 21  |  |
| Total                      | 416 | 26,621,613 | 8,649 | 1,166 | 1,417 | 12,317 | 116   | 6,367,718 | 219 | 273 | 862 | 645 |  |

Table 5.2: Record of mined road tasks work undertaken 2011-2024

| State                   | #HA | Area (sqm) | AP | AT | СМ | uxo |
|-------------------------|-----|------------|----|----|----|-----|
| Central Equatoria       | 10  | 1,092,053  | 0  | 10 | 14 | 90  |
| Eastern Equatoria       | 8   | 1,717,042  | 4  | 10 | 1  | 76  |
| Jonglei                 | 2   | 1,018      | 0  | 0  | 0  | 0   |
| Northern Bahr El Ghazal | 1   | 0          | 0  | 0  | 0  | 0   |
| Unity                   | 11  | 438,388    | 0  | 4  | 0  | 5   |
| Upper Nile              | 1   | 595,104    | 0  | 2  | 0  | 12  |
| Warrap                  | 2   | 49,205     | 0  | 0  | 0  | 0   |
| Western Bahr El Ghazal  | 10  | 724,372    | 0  | 3  | 0  | 20  |
| Total                   | 45  | 4,617,182  | 4  | 29 | 15 | 203 |

In parallel to this clearance work there have also been 281 cluster strikes and 279 battle area clearance tasks completed:

<u>Table 5.3: Record of all Cluster Munition and Battle Area Clearance work undertaken 2011-2024</u>

|                            | СМ  |            |    |    |        |       | BF  |            |    |    |     |        |
|----------------------------|-----|------------|----|----|--------|-------|-----|------------|----|----|-----|--------|
| State                      | #HA | Area (sqm) | АР | AT | СМ     | UXO   | #HA | Area(sqm)  | AP | AT | СМ  | UXO    |
| Central<br>Equatoria       | 99  | 12,546,341 | 0  | 24 | 9,305  | 1,265 | 78  | 7,225,217  | 0  | 0  | 0   | 46,681 |
| Eastern<br>Equatoria       | 99  | 13,810,418 | 1  | 0  | 10,622 | 398   | 18  | 814,166    | 2  | 0  | 346 | 241    |
| Jonglei                    | 18  | 2,013,866  | 0  | 0  | 977    | 36    | 30  | 1,658,974  | 0  | 0  | 0   | 954    |
| Lakes                      | 5   | 722,747    | 0  | 0  | 257    | 2     | 4   | 448,678    | 0  | 0  | 0   | 554    |
| Northern Bahr<br>El Ghazal | 3   | 193,523    | 0  | 0  | 112    | 0     | 5   | 3,012,519  | 0  | 0  | 0   | 140    |
| Unity                      | 2   | 671,827    | 0  | 0  | 447    | 8     | 35  | 2,162,503  | 0  | 1  | 0   | 2,264  |
| Upper Nile                 | 7   | 936,385    | 0  | 1  | 353    | 21    | 74  | 9,114,079  | 0  | 2  | 22  | 1,357  |
| Warrap                     | 2   | 18,909     | 0  | 0  | 54     | 342   | 3   | 29,398     | 0  | 0  | 0   | 0      |
| Western Bahr El<br>Ghazal  | 13  | 1,576,100  | 0  | 0  | 574    | 8     | 28  | 3,961,565  | 0  | 0  | 0   | 4,135  |
| Western<br>Equatoria       | 33  | 4,071,375  | 0  | 0  | 1,778  | 67    | 4   | 106,953    | 0  | 0  | 111 | 2      |
| Total                      | 281 | 36,561,491 | 1  | 25 | 24,479 | 2,147 | 279 | 28,534,052 | 2  | 3  | 479 | 56,328 |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

In addition to this clearance work there were also 829 potential tasks cancelled (435 AP, 110 AT,11 mined roads and 273 BF/CM tasks ) as shown on Table 5.4.

Table 5.4: Record of all cancellation done 2011-2024

|                            |     | AP          |     | AT          |     | BF/CM      | Mined Road |            |
|----------------------------|-----|-------------|-----|-------------|-----|------------|------------|------------|
| State                      | #HA | Area (sqm)  | #HA | Area (sqm)  | #HA | Area (sqm) | #HA        | Area (sqm) |
| Central Equatoria          | 244 | 8,686,794   | 42  | 884,017     | 95  | 1,335,353  | 1          | 10         |
| Eastern Equatoria          | 78  | 8,084,825   | 6   | 98,573,403  | 79  | 6,446,299  | 1          | 45,000     |
| Jonglei                    | 26  | 29,882,312  | 25  | 697,114     | 20  | 326,825    | 1          | 1          |
| Lakes                      | 5   | 28,508      | 3   | 196,350     | 7   | 183,234    |            | 0          |
| Northern Bahr El<br>Ghazal | 4   | 600,020     | 2   | 6,364       | 3   | 66,214     | 1          | 0          |
| Unity                      | 4   | 13,252,228  | 4   | 191,980     | 11  | 1,524,460  | 6          | 6,966      |
| Upper Nile                 | 24  | 55,975,140  | 17  | 67,726      | 20  | 1,290,145  |            | 0          |
| Warrap                     | 2   | 13,026,436  | 2   | 10,500      | 1   | 0          | 1          | 196,400    |
| Western Bahr El<br>Ghazal  | 9   | 6,874,961   | 6   | 58,000      | 14  | 8,551,075  | 0          | 0          |
| Western Equatoria          | 39  | 2,005,717   | 3   | 106,771     | 23  | 154,143    | 0          | 0          |
| Total                      | 435 | 138,416,941 | 110 | 100,792,225 | 273 | 19,877,748 | 11         | 248,377    |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Thus since joining the Convention South Sudan has removed the following number of hazardous areas from its database of contamination:

Table 5.5: Number of Hazardous Areas Removed from Database since joining Convention

| lumber of Hazardous Areas Removed from Database since joining Convention |            |             |  |  |  |  |  |  |  |
|--|------------|-------------|--|--|--|--|--|--|--|
| Hazard Type  | # of Tasks | Area (Sqm)  |  |  |  |  |  |  |  |
| AP Minefields  | 845        | 197,999,567 |  |  |  |  |  |  |  |
| AT minefields  | 225        | 115,065,036 |  |  |  |  |  |  |  |
| Mined Roads  | 45         | 9,304,142   |  |  |  |  |  |  |  |
| Cluster strikes  | 376        | 32,628,489  |  |  |  |  |  |  |  |
| Battlefields   | 419        | 65,061,752  |  |  |  |  |  |  |  |
| Totals   | 1,910      | 420,058,986 |  |  |  |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Since the approval of the Article 5 extension request in July 2021, South Sudan has removed the following from its database of contamination as shown on Table 5.6 below.

Table 5.6: Number of Hazardous Areas Removed from Database since last Extension Request

| Number of Hazardous Areas Removed from Database since last Extension Request |            |            |  |  |  |  |  |  |  |
|--|------------|------------|--|--|--|--|--|--|--|
| Hazard Type  | # of Tasks | Area       |  |  |  |  |  |  |  |
| AP Minefields  | 15         | 1,561,584  |  |  |  |  |  |  |  |
| AT minefields  | 16         | 995,849    |  |  |  |  |  |  |  |
| Mined road   | 46         | 2,355,989  |  |  |  |  |  |  |  |
| Cluster strikes  | 51         | 13,368,454 |  |  |  |  |  |  |  |
| Battlefields   | 95         | 10,267,424 |  |  |  |  |  |  |  |
| Cancellations  | 46         | 3,595,408  |  |  |  |  |  |  |  |
| Totals   | 223        | 29,788,719 |  |  |  |  |  |  |  |

# 6. Nature and extent of progress made: qualitative aspects - resources made available to achieve this progress (overview of both national and International inputs).

Since 2011, South Sudan has made concerted efforts to clear those areas within the country that have been contaminated with AP mines. The efforts have been conducted under the leadership of The National Mine Action Authority which was established by the Government of South Sudan as the legal body with responsibility for the delivery and regulation of mine action activities in the country. UNMAS has worked to support the development of the NMAA since its inception and has curated the records of contamination and clearance undertaken, as well as jointly (with the NMAA) monitoring the quality of clearance efforts. Although the primary responsibility for quality management lies with the implementers themselves, NMAA and UNMAS jointly share the responsibility for accrediting the organisations and for monitoring their adherence to their quality management plans. This process is realised through monthly visits to all clearance teams from external parties, both from the clearance organisations' own quality management team and through NMAA/UNMAS visits.

Historically, five commercial organisations (Mechem, Armour Group/G4S, Mine-Tech/DML, The Development Initiative [TDI] and SafeLane Global [SLG]) have engaged in demining operations along with five international NGOs (Mines Advisory Group (MAG), Norwegian People's Aid (NPA), Danish Demining Group (DDG), DanChurch Aid (DCA) and Swiss Demining Foundation (FSD)) and national NGOs (Operation Save Innocent Lives (OSIL), Sudan Integrated Mine Action Service (SIMAS), Operations Landmines and Victim Assistance (OLAVS) and Save lives Initiative (SLI)). Since July 2021, three commercial organisations (G4S, TDI and SLG) and three INGOs (MAG, DCA and Danish Refugee Council - former DDG) have engaged in demining activities while OSIL conducted a very limited commercial operational activity in terms of survey. At the same time, DCA had to close their operational clearance activities due to lack of donor support.

These organisations have deployed manual and mechanical clearance systems as well as both technical and non-technical survey teams. All clearance teams working in South Sudan, including survey teams, contain a community liaison element that engages with the local authorities and general public to explain the work being undertaken, learn about the local perceptions and concerns regarding explosive contamination (in all its forms) and to deliver risk education messaging.

Explosive Ordnance Risk Education has been integrated into the work of all teams conducting mine action, but in addition to those organisations already listed, the following national and international organisations, mainly funded by the UN Children's Fund (UNICEF), have also conducted EORE within the country: Child Assistant Organisation (CAO), Child's Destiny and Development Organization (CDDO), Children Charity Organisation (CCO), Community in Need Aid (CINA), Christian Missionaries Initiative (CMI), Child Rehabilitation Organisation (CRO), Greater Upper Nile Organisation (GUNO), Institute for Promotion of Civil Society, Save Lives Initiative (SLI), Women and Orphans Charitable Organisation (WOCO), World Vision (WV), Plan International and Malakal Mobile Theatre Team (MMTT). These organisations have developed common teaching material that in bespoke fashion to different sections of the community to most effectively convey the key messages to the respective audiences.

In line with the Oslo Action Plan Action #3 (ensuring that the needs and perspectives of women, girls, boys and men are considered) Suspected Hazardous Areas are identified initially through engagement of community liaison teams that are then refined by the deployment of non-technical (NTS) survey teams. The gender-balanced nature of all community liaison teams in South Sudan enables them to speak to all demographics of the community and thereby to build a comprehensive and inclusive picture of the contamination and of its impact on them. In turn, this community wide perspective of the impact of varying hazards assists greatly in the prioritisation of clearance tasks by ensuring that the needs of the community as a whole are addressed so that no-one is left behind.

The performance of the community liaison teams has improved significantly since South Sudan joined the Convention in both cancelling the errant reports of the past and in honing their information gathering skills to enable them to make more realistic assessments of the magnitude of newly identified hazards.

Once clearance tasks have been identified, further survey work then takes place to define the limits of safe ground and to refine the estimate of contamination. Both manual and mechanical mine clearance teams are then deployed. In recent years, some of the teams have been equipped with advanced dual sensor detectors to enhance the performance of manual demining teams. The current clearance capacity operating in South Sudan includes light and heavy machines, mine detection dogs and manual deminers equipped with an array of different detectors. This combination of clearance resources allows for a tailored approach to all clearance tasks and thereby underpins efficient clearance operations through the deployment of the most appropriate clearance tool.

The South Sudan National Technical Standards and Guidelines (NTSG) outline the technical requirements expected of all demining operators in South Sudan. The NTSG is regarded as an organic document with revisions discussed by NMAA, UNMAS and the implementing agencies and then approved by the NMAA. These documents include details on the expectations of how quality control and quality assurance are to be conducted, as well as the minimum data requirements and the procedures by which tasks are completed and handed over to the beneficiary population. The NTSG are modelled on the International Mine Action Standards (IMAS) but are tailored to the local situation to allow operators to deliver efficient safe and quality mine clearance operations. In line with Oslo Action Plan Action #5, the standards are annually updated to ensure that they remain in harmony with the latest version of the IMAS, as well as the most current operational requirements.

The handover of cleared land is done on the completion of all clearance tasks with the work conducted formally recorded and documented within IMSMA. Representatives of both UNMAS and the local authorities are always present for the handover of the land.

The NMAA has regularly published national strategies, often with support of UNMAS and the Geneva International Centre for Humanitarian Demining (GICHD). The latest strategy has been developed from late 2023 and endorsed on 4 April 2024, covering period from 2024-2028 and has the following strategic goals:

- 1. **Strengthened National Ownership** As a State Party to the APMBC and CCM, South Sudan commits to take on greater ownership of the mine action programme, including by ensuring that NMAA is sufficiently equipped and resourced to effectively execute its mandate in line with the NMAA Act.
- Land Release The strategy highlights the need to clarify the true extent of contamination and is addressed through appropriate survey and clearance approaches.
- Explosive Ordnance Risk Education and Victim Assistance The need to raise awareness, and promote safe behaviour amongst women, girls, boys and men is highlighted.

The requirement to prioritise the country's mine action needs is also recognized in the Revised National Development Strategy (RNDS)<sup>3</sup>. It cites "Contamination of areas with unexploded ordnance (UXO), explosive remnants of war (ERW) which affects farming, grazing and human settlement as a key issue that must be addressed to establish an environment for sustainable peace and development in the country during the RNDS period (2021 – 2024)".

In addition, the National Mine Action Authority Act which came into effect on 7 July 2023, setting stage for greater empowerment of the NMAA and more cohesive approach to Mine Action in South Sudan.

## National capacity to implement operations

Over the years, there have been multiple attempts to develop the strength of South Sudanese national clearance organisations but as yet, although many South Sudanese nationals have demonstrated the technical ability to conduct mine action, no organisation has ever developed into a sustainable capacity. South Sudan is acutely aware that some form of long-term capacity will be needed to address the inevitable new discoveries of explosive ordnance that will be made for many years to come. South Sudan is seeking to develop a capacity that may respond to those requests for assistance that arise and would like to base this within and around the existing structure of the NMAA.

# **Support for Mine Action**

South Sudan has contributed to its clearance obligations through constant support to the NMAA and has covered the costs of both its Juba headquarters and one regional office in Wau. The Malakal and Yei offices are currently suspended due to the security situation. The efforts to rid South Sudan of landmines have been supported by a number of international donors, as well as with funding from the Assessed Budget of the United Nations and through the UNMAS Voluntary Trust Fund. The table presented below indicates the total support given to South Sudan in support of its Convention commitments:

<sup>&</sup>lt;sup>3</sup> Republic of South Sudan Revised National Development Strategy 2021 - 2024

Table 6.1: Summary of financial support for mine action efforts in South Sudan

| Year | Overall funding for mine action (US\$) |
|------|--|
| 2011 | 39,846,144                             |
| 2012 | 56,228,146                             |
| 2013 | 60,892,801                             |
| 2014 | 50,709,347                             |
| 2015 | 47,658,597                             |
| 2016 | 43,414,777                             |
| 2017 | 40,409,367                             |
| 2018 | 42,826,126                             |
| 2019 | 41,030,795                             |
| 2020 | 41,210,810                             |
| 2021 | 37,255,636                             |
| 2022 | 39,398,884                             |
| 2023 | 36,300,000                             |
| 2024 | 33,000,000                             |

It is important to note that the figures presented here represent the support for mine action as a whole and are not disaggregated to show the support for purely mine clearance let alone the clearance of anti-personnel minefields. It should also be recognized that much of the United Nations Assessed Budget funding received by UNMAS (which on average has contributed around three guarters of all sector funding and in recent years almost 80% is used to support the mobility of the United Nations Mission in South Sudan (UNMISS) as well as to address other ammunition management and security concerns. Nevertheless, the UNMISS support includes an important part of the overall mine action effort, as more than 40,000km of road were verified as being free of mines with this support. That action effectively re-opened the country to road transportation at the end of the conflict. Simultaneously, the requirement to provide support to UNMISS, has led to mine action teams being deployed to areas of particular interest to the Mission, rather than to those areas that are most affected by landmines and unexploded ordnance. Looking forward, those same UNMISS funded teams may well be called upon to play a role in the disarmament and demobilisation process that is likely to follow on from the establishment of a lasting peace. Although this is an undeniably important role in stabilising the country, it may further reduce the resources channelled to the implementation of the mine clearance effort.

# 7 Efforts undertaken to ensure the effective exclusion of civilians from mined areas

Throughout the history of mine action in South Sudan, there has been a heavy emphasis on the importance of Explosive Ordnance Risk Education. Through this, the whereabouts of confirmed and suspected hazardous areas have been gleaned from and communicated to the community leaders and members.

The approach adopted to EORE in South Sudan is in line with Action #28-#32 of the Oslo Action Plan (OAP) *Risk education is fully integrated into wider humanitarian activities*, this is coordinated through the cluster approach to humanitarian assistance with the Mine Action Sub Cluster being a component of the Protection Cluster (OAP#28). Context specific mine risk education is delivered to all affected groups and tailored to meet their capacity to absorb the information (OAP#29).

Action point #30 is addressed through the timely follow up of all accidents to determine their underlying cause and appropriate risk education measures are then implemented to minimise the exposure of others living in the area. Fifteen national organisations deliver risk education in South Sudan giving a strong degree of ownership of this pillar of mine action (OAP #31), and disaggregated data has been regularly submitted within the Article 7 reports.

However, the scarcity of resources and the overwhelming poverty that has blighted much of South Sudan, has meant that few minefields have been formally marked beyond the posting of "danger mines" signs to alert passers-by of the dangers. Nevertheless, UNMAS, on behalf of the NMAA, has maintained the centralised database of information relating to hazardous areas and has made information available to all interested parties.

Because of the difficulties of marking mined areas, the greatest effort to exclude civilians from them has therefore been directed towards EORE. The charts presented below show how many people have benefitted from a countrywide MRE programme over the years and how that effort has been directed across the country.

Since 2011, more than five million South Sudanese have benefitted from Explosive Risk Ordnance Education. These efforts are summarised in the following tables and charts:

Table 7.1: Year on year sex and age disaggregated data of Explosive Ordnance Risk Education beneficiaries

| Year  | Boys      | Girls     | Men       | Women     | Total     |
|-------|-----------|-----------|-----------|-----------|-----------|
| 2011  | 64,538    | 51,173    | 26,781    | 21,649    | 164,141   |
| 2012  | 101,885   | 85,420    | 48,391    | 49,020    | 284,716   |
| 2013  | 78,197    | 58,628    | 56,021    | 54,505    | 247,351   |
| 2014  | 54,892    | 45,214    | 33,390    | 34,159    | 167,655   |
| 2015  | 170,762   | 145,563   | 98,006    | 102,440   | 516,771   |
| 2016  | 124,752   | 109,426   | 71,558    | 79,547    | 385,283   |
| 2017  | 105,903   | 95,375    | 70,963    | 74,013    | 346,254   |
| 2018  | 214,494   | 198,869   | 140,277   | 149,849   | 703,489   |
| 2019  | 251,081   | 240,634   | 182,898   | 201,401   | 876,014   |
| 2020  | 67,937    | 62,778    | 56,402    | 59,684    | 246,801   |
| 2021  | 106,996   | 97,126    | 60,505    | 70,140    | 334,767   |
| 2022  | 186,371   | 171,212   | 76,052    | 110,791   | 544,426   |
| 2023  | 179,685   | 168,158   | 78,977    | 108,512   | 535,332   |
| 2024  | 148126    | 129,364   | 69,118    | 81,079    | 427,687   |
| Total | 1,855,619 | 1,658,940 | 1,069,339 | 1,196,789 | 5,780,687 |

This effort can further be disaggregated by location as follows:

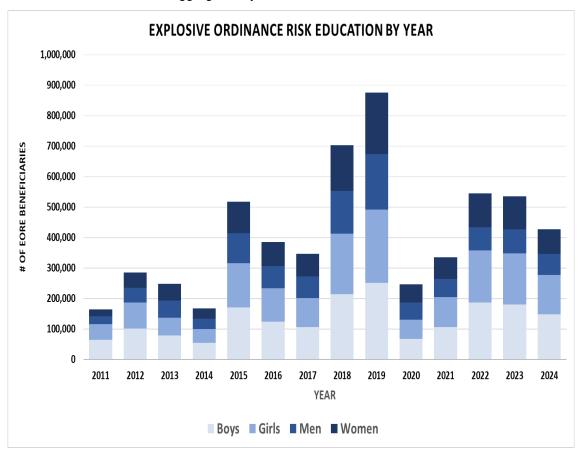


Figure 7.1: Explosive Ordnance Risk Education by year. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

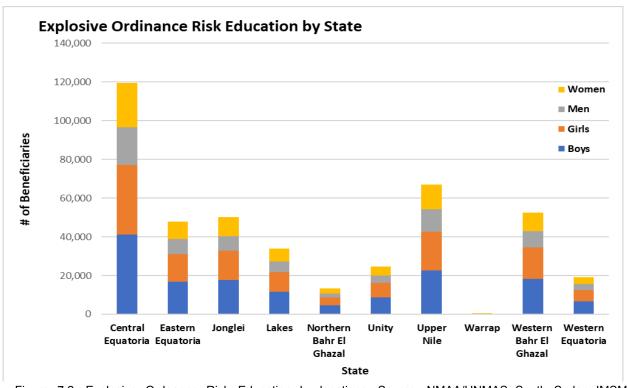


Figure 7.2: Explosive Ordnance Risk Education by locations. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table 7.2: State by state level sex and age disaggregated EORE beneficiary data

| State                   | Boys    | Girls         | Men    | Women  |
|-------------------------|---------|---------------|--------|--------|
| Central Equatoria       | 41,233  | 35,964 19,318 |        | 22,815 |
| Eastern Equatoria       | 16,679  | 14,448        | 7,802  | 8,789  |
| Jonglei                 | 17,628  | 15,126        | 7,663  | 9,681  |
| Lakes                   | 11,557  | 10,305        | 5,411  | 6,508  |
| Northern Bahr El Ghazal | 4,556   | 3,992         | 2,161  | 2,567  |
| Unity                   | 8,795   | 7,375         | 3,847  | 4,550  |
| Upper Nile              | 22,579  | 19,972        | 11,523 | 12,974 |
| Warrap                  | 152     | 97            | 50     | 57     |
| Western Bahr El Ghazal  | 18,390  | 16,134        | 8,251  | 9,610  |
| Western Equatoria       | 6,557   | 5,951         | 3,092  | 3,528  |
| Total                   | 148,126 | 129,364       | 69,118 | 81,079 |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

# 8. Mine Accidents

Since South Sudan joined the Convention, it has recorded 730 mine and UXO victims (however more than 4,500 were recorded in the ten years leading up to independence). Of these 61 were victims of AP mines, 153 of AT mines, 40 of Cluster Munitions, and 516 have been attributed to UXO. However the cause of the injuries to 17 of the victims has not been identified meaning that the true number of AP mine victims may well be higher than that recorded. It should also be noted that the difficulties of movement around the country due to both the poor infrastructure and on-going fighting in many areas, means that the actual number of victims is almost certainly higher than the officially recorded figures.

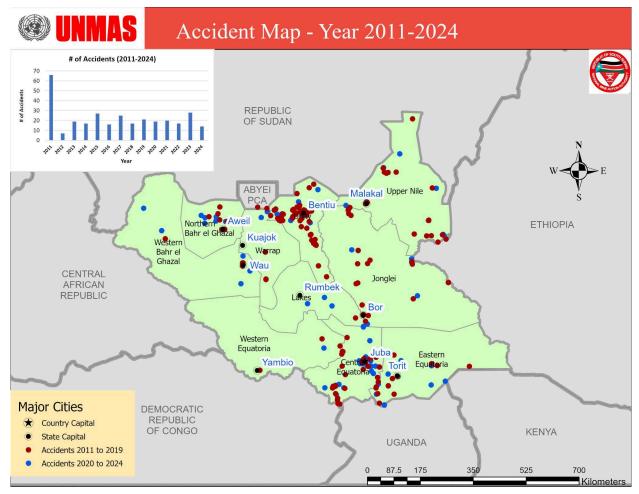


Figure 8.1: Accidents locations 2011-2019 and 2020-2024. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

The map above shows how the accidents have largely been concentrated in Unity State in the north, and in Central Equatoria in the south of the country. There are now just Three clearance tasks remaining in Unity State but accidents continue to occur as unexploded ordnance is widespread across the state.

The chart and table below disaggregate the accident data by hazard type and by year. The chart reveals that other than in 2011 when 41 South Sudanese fell victim to anti-personnel mines, since then there have been relatively few AP mine accidents with an average of a fraction over one per year since 2012 and two years (2014 and 2018) when there were no AP mine accidents recorded. The last AP mine related accident was recorded in 05 November 2024. It should not be forgotten that the displacement of 2.6million South Sudanese from their homes would have also contributed to the steep reduction in accident numbers in recent years.

Table 8.1: Number of Victims since South Sudan joined the Convention

|       | Number of Victims since South Sudan joined the Convention |     |     |              |             |     |       |  |  |  |
|-------|---|-----|-----|--------------|-------------|-----|-------|--|--|--|
| Veer  |   |     | Dev | ice involved | d           |     | Tatal |  |  |  |
| Year  | AP  | AT  | СМ  | SAA          | SAA Unknown |     | Total |  |  |  |
| 2011  | 42  | 112 | 0   | 0            | 0           | 19  | 173   |  |  |  |
| 2012  | 1   | 0   | 0   | 0            | 0           | 11  | 12    |  |  |  |
| 2013  | 2   | 0   | 7   | 0            | 0           | 38  | 47    |  |  |  |
| 2014  | 4   | 16  | 1   | 0            | 0           | 20  | 41    |  |  |  |
| 2015  | 3   | 7   | 2   | 0            | 0           | 64  | 76    |  |  |  |
| 2016  | 1   | 3   | 0   | 5            | 0           | 36  | 45    |  |  |  |
| 2017  | 3   | 1   | 0   | 2            | 0           | 52  | 58    |  |  |  |
| 2018  | 1   | 0   | 3   | 2            | 0           | 51  | 57    |  |  |  |
| 2019  | 1   | 7   | 7   | 1            | 0           | 37  | 53    |  |  |  |
| 2020  | 1   | 0   | 16  | 4            | 2           | 36  | 59    |  |  |  |
| 2021  | 0   | 2   | 0   | 0            | 1           | 35  | 38    |  |  |  |
| 2022  | 1   | 5   | 0   | 2            | 5           | 27  | 40    |  |  |  |
| 2023  | 0   | 0   | 4   | 2            | 5           | 67  | 78    |  |  |  |
| 2024  | 1   | 0   | 0   | 5            | 3           | 7   | 16    |  |  |  |
| Total | 61  | 153 | 40  | 23           | 16          | 500 | 793   |  |  |  |

Mine Accidents have been recorded in each of the ten states. However there have been no AP mine accidents in Lakes since South Sudan joined the Convention. It is clear that the majority of victims resulted from incidents with unexploded ordnance.

# Chart showing number of victims by cause of accident year on year

South Sudan has signed the Convention on the Rights of Persons with Disabilities and has developed a policy which includes a plan for victim assistance. Details of all accidents are held within the Information Management System of Mine Action, and a pathway for referrals has been developed to ensure that victims get the support they need. However currently the only prosthetics workshop in the country is in Juba operated by the International Red Cross Committee (ICRC) and there is a need for greater psycho-social support for victims.

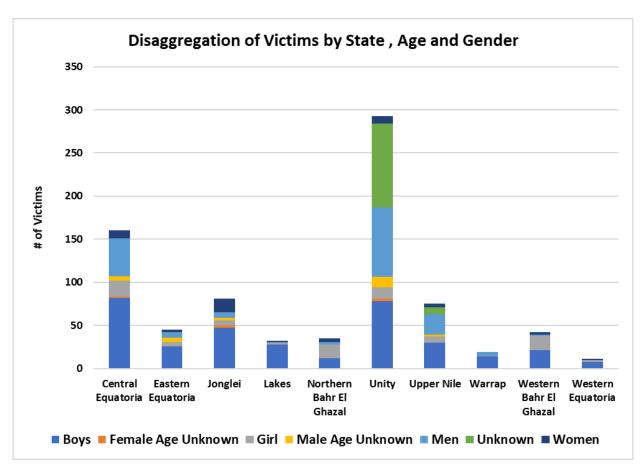


Figure 8.2: Accident victims by location, gender and age. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

# 9. Nature and extent of the remaining Article 5 challenge: quantitative aspects

As of 31 December 2024, South Sudan knows of the existence of 191 mined areas (165 minefields and 26 mined roads), 105 cluster strikes and 37 battle areas. These are currently recorded as extending across an area of 22.34 km², however it is believed that this figure is likely to be further refined through additional survey work. This is because a number of suspected hazard areas are thought to be far smaller than their original survey estimates.

South Sudan has a relatively well defined picture of the remaining contamination. The known minefields can further be disaggregated as follows:

Table 9.1: Disaggregation of known minefields by type and classification:

|               | СНА                  |           | SHA |                            |  |  |
|---------------|----------------------|-----------|-----|----------------------------|--|--|
| Hazard Type   | Number of<br>Hazards |           |     | Area of<br>Hazards<br>(m²) |  |  |
| AP Minefields | 71                   | 2,662,879 | 43  | 2,280,682                  |  |  |
| AT Minefields | 39                   | 1,641,376 | 12  | 688,279                    |  |  |
| Mined Roads   | 13                   | 2,047,020 | 13  | 1,872,748                  |  |  |
| Total         | 123                  | 6,351,275 | 68  | 4,841,709                  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025



Figure 9.1: A road clearance team in South Sudan. Source UNMAS South Sudan.

The majority of the suspected mined roads in South Sudan are devoid of vegetation and believed to only be contaminated with anti-vehicle mines. As such clearance is done using a combination of dual sensor detectors and mine detection dogs in a deployment style that achieves 700 metres linear length of road clearance per day (4,200m²/day). Therefore, road tasks are disaggregated from other demining tasks, as the speed of clearance is different.

The efforts to clear South Sudan's explosive contamination has not only reduced the overall magnitude of the remaining problem, it has also cleared all known hazardous items from 79% of payams (the third administrative division in South Sudan) within the country.

The maps presented in Section 10 'The Disaggregation of Current Contamination' show the dispersal of contamination by number of clearance tasks across the country. This map, which is disaggregated down to the payam level which is the fourth administrative level shows:

- South Sudan is 79% mine free:
- 413 Payams (79%) have no clearance tasks remaining;
- 57 Payams (11%) have just one area clearance task remaining;
- 46 payams (9%) are contaminated with 149 clearance tasks;
- 9 payams (1%) account for 127 (1.8%) of all remaining tasks.

In other words, the remaining clearance requirement in South Sudan is so concentrated that it can justifiably argue that 80% of its territory is now free from the requirement for proactive clearance and can now transition to the reactive phase of its explosive contamination management.

These hazards are dispersed as follows:

Table 9.2: Distribution of remaining open hazards in South Sudan

| Distributi | Distribution of remaining open hazards in South Sudan |            |     |             |     |            |     |            |     |            |  |
|------------|---|------------|-----|-------------|-----|------------|-----|------------|-----|------------|--|
|            |   | MF*        | Mir | Mined Roads |     | CM BF      |     | BF         |     | All HA     |  |
| State      | #HA   | Area (sqm) | #HA | Area (sqm)  | #HA | Area (sqm) | #HA | Area (sqm) | #HA | AREA (sqm) |  |
| CES        | 95  | 2,175,325  | 7   | 281,279     | 40  | 4,246,735  | 17  | 335,442    | 159 | 7,038,781  |  |
| EES        | 26  | 1,512,120  | 1   | 543,905     | 41  | 3,920,817  | 4   | 240,034    | 72  | 6,216,876  |  |
| WES        | 6   | 499,222    | 3   | 5,642       | 7   | 515,431    | 1   | 10,000     | 17  | 1,030,295  |  |
| Jonglei    | 19  | 2,326,803  | 7   | 1,753,146   | 7   | 419,639    | 1   | 110,526    | 34  | 4,610,114  |  |
| Lakes      | 1   | 31,708     | 0   | 0           | 2   | 0          | 5   | 574,067    | 8   | 605,775    |  |
| UNS        | 11  | 491,153    | 5   | 377,573     | 4   | 203,429    | 6   | 296,476    | 26  | 1,368,631  |  |
| Unity      | 0   | 0          | 2   | 819,903     | 0   | 0          | 1   | 15,922     | 3   | 835,825    |  |
| WBEG       | 2   | 64,558     | 1   | 138,320     | 3   | 132,707    | 1   | 5,681      | 7   | 341,266    |  |
| NBEG       | 3   | 71,143     | 0   | 0           | 0   | 0          | 1   | 26,673     | 4   | 97,816     |  |
| Warrap     | 2   | 101,184    | 0   | 0           | 1   | 93,000     | 0   | 0          | 3   | 194,184    |  |
| Total      | 165   | 7,273,216  | 26  | 3,919,768   | 105 | 9,531,758  | 37  | 1,614,821  | 333 | 22,339,563 |  |

<sup>\*</sup> The MF data is further disaggregated by type of threat on Tables 9.3 and 9.4

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Of this contamination there are thought to be 191 minefields remaining that contaminate an estimated area of 11,192,894 m<sup>2</sup>. These can be further disaggregated as follows:

Table 9.3: All known minefields remaining in the database

| 04-4-   | A       | P          | Δ       | AT .      | Mined   | Roads      | All M   | ined Fields |
|---------|---------|------------|---------|-----------|---------|------------|---------|-------------|
| State   | # of HA | Area (sqm) | # of HA | Area m2   | # of HA | Area (sqm) | # of HA | Area (sqm)  |
| CES     | 70      | 1,699,267  | 25      | 476,058   | 7       | 281,279    | 102     | 2,456,604   |
| EES     | 19      | 656,818    | 7       | 855,302   | 1       | 543,905    | 27      | 2,056,025   |
| WES     | 6       | 499,222    | 0       | 0         | 3       | 5,642      | 9       | 504,864     |
| Jonglei | 10      | 1,827,565  | 9       | 499,238   | 7       | 1,753,146  | 26      | 4,079,949   |
| Lakes   | 0       | 0          | 1       | 31,708    | 0       | 0          | 1       | 31,708      |
| UNS     | 5       | 105,543    | 6       | 385,610   | 5       | 377,573    | 16      | 868,726     |
| Unity   | 0       | 0          | 0       | 0         | 2       | 819,903    | 2       | 819,903     |
| WBEG    | 1       | 58,680     | 1       | 5,878     | 1       | 138,320    | 3       | 202,878     |
| NBEG    | 2       | 56,466     | 1       | 14,677    | 0       | 0          | 3       | 71,143      |
| Warrap  | 1       | 40,000     | 1       | 61,184    | 0       | 0          | 2       | 101,184     |
| Total   | 114     | 4,943,561  | 51      | 2,329,655 | 26      | 3,919,768  | 191     | 11,192,984  |

Of this contamination there are thought to be 114 AP minefields remaining that contaminate an estimated area of 4,943,561 m² which accounts for both conformed and suspected AP minefields. These can be further disaggregated on Table 9.4 next page.

It is interesting to note that the Suspect Hazardous Areas, account for more than 13% of the recorded contamination. Majority of these SHA are located in areas which are inaccessible because of security, static flooding or lack of infrastructure.

Table 9.4: All remaining AP Minefields

|         |     |            | All AP | Minefields |       |            |  |
|---------|-----|------------|--------|------------|-------|------------|--|
| State   |     | СНА        |        | SHA        | Total |            |  |
|         | #HA | Area (sqm) | #HA    | Area (sqm) | #HA   | Area (sqm) |  |
| CES     | 43  | 1,489,322  | 27     | 209,945    | 70    | 1,699,267  |  |
| EES     | 16  | 644,668    | 3      | 12,150     | 19    | 656,818    |  |
| WES     | 1   | 99,398     | 5      | 399,824    | 6     | 499,222    |  |
| Jonglei | 3   | 208,802    | 7      | 1,618,763  | 10    | 1,827,565  |  |
| Lakes   | 0   | 0          | 0      | 0          | 0     | 0          |  |
| UNS     | 5   | 105,543    | 0      | 0          | 5     | 105,543    |  |
| Unity   | 0   | 0          | 0      | 0          | 0     | 0          |  |
| WBEG    | 1   | 58,680     | 0      | 0          | 1     | 58,680     |  |
| NBEG    | 2   | 56,466     | 0      | 0          | 2     | 56,466     |  |
| Warrap  | 0   | 0          | 1      | 40,000     | 1     | 40,000     |  |
| Total   | 71  | 2,662,879  | 43     | 2,280,682  | 114   | 4,943,561  |  |

# 10. The Disaggregation of Current Contamination

In order to better visualise the remaining challenge, the overall remaining EO contamination is analysed here with the country divided into its three principal regions:

- Greater Equatoria, comprising Eastern Central and Western Equatoria, where 74.5% (248) of the clearance tasks account for 14,285,952m<sup>2</sup> of contamination (63% of remaining contamination)
- Greater Bahr El Ghazal, comprising Warrap, Lakes and Northern and Western Bahr El Ghazal, where just 6% of the remaining tasks (22) account for 5% of the remaining contamination (1,239,041m²).
- Greater Upper Nile region comprising Jonglei, Unity, and Upper Nile states, where 19% (63) of tasks remain which are currently estimated to extend across 6,814,570m² (31%). It is thought that this estimate is excessive and that survey work will further reduce the actual clearance requirement.

# 10.1 The Greater Equatoria Region

Table 10.1: All remaining known contamination the Greater Equatoria Region

|                      | AP Mines   |               | AT I    | AT Mines      |            | ned Roads  | Cluster Munitions |               | Confrontation Area |               |
|----------------------|------------|---------------|---------|---------------|------------|------------|-------------------|---------------|--------------------|---------------|
| State                | # of<br>HA | Area<br>(Sqm) | # of HA | Area<br>(Sqm) | # of<br>HA | Area (Sqm) | # of<br>HA        | Area<br>(Sqm) | # of<br>HA         | Area<br>(Sqm) |
| Central<br>Equatoria | 70         | 1,699,267     | 25      | 476,058       | 7          | 281,279    | 40                | 4,246,735     | 17                 | 335,442       |
| Eastern<br>Equatoria | 19         | 656,818       | 7       | 855,302       | 1          | 543,905    | 41                | 3,920,817     | 4                  | 240,034       |
| Western<br>Equatoria | 6          | 499,222       | 0       | 0             | 3          | 5,642      | 7                 | 515,431       | 1                  | 10,000        |
| Total                | 95         | 2,855,307     | 32      | 1,331,360     | 11         | 830,826    | 88                | 8,682,983     | 22                 | 585,476       |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table 10.2: Remaining known contamination in the Greater Equatoria region disaggregated by confirmed and suspected hazardous area

|        | State              | Central<br>Equatoria | Eastern<br>Equatoria | Western<br>Equatoria | Total      |
|--------|--------------------|----------------------|----------------------|----------------------|------------|
|        | # of all HA        | 120                  | 50                   | 10                   | 180        |
|        | Area in SQM        | 5,548,642            | 4,889,123            | 890,733              | 11,328,498 |
| СНА    | # of AP minefields | 43                   | 16                   | 1                    | 60         |
|        | AP area in SQM     | 1,489,322            | 644,668              | 99,398               | 1,699,267  |
|        | # of all HA        | 39                   | 22                   | 7                    | 68         |
| CUA    | Area in SQM        | 1,490,139            | 1,327,753            | 139,562              | 2,957,454  |
| SHA    | # of AP minefields | 27                   | 3                    | 5                    | 35         |
|        | AP area in SQM     | 209,945              | 12,150               | 399,824              | 621,919    |
|        | # of all HA        | 159                  | 7                    | 17                   | 248        |
| Totala | Area in SQM        | 7,038,781            | 6,216,676            | 1,030,295            | 14,285,952 |
| Totals | # of AP minefields | 70                   | 19                   | 6                    | 95         |
|        | AP area in SQM     | 1,699,267            | 656,818              | 499,222              | 2,855,307  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

The majority of the remaining clearance tasks in South Sudan lie in the Greater Equatoria region of the country. This is also the area where the largest number of hazardous areas have been cleared and thus it is the part of the country in which the mine action sector is most confident of its understanding.

Across Greater Equatoria 138 minefields extend over an area of 5.0 km² (an average of 36,358 Sqm per minefield), which is a realistic contamination estimate that suggests that all of this area will need to be cleared and that little will be reduced through technical survey or cancelled through non-technical survey.

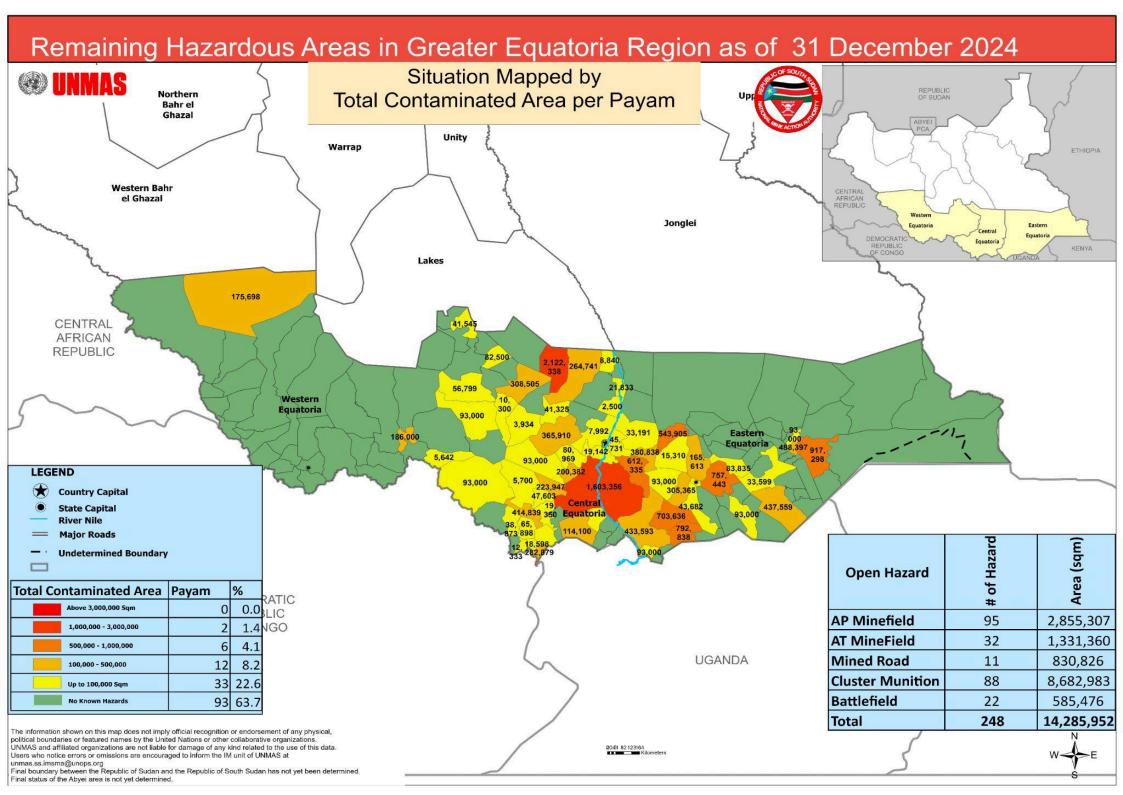
Accordingly, Equatoria is expected to be the focus area for the deployment of clearance teams in the coming years. The concentration of clearance tasks within the region will lead to the more efficient deployment of demining teams.

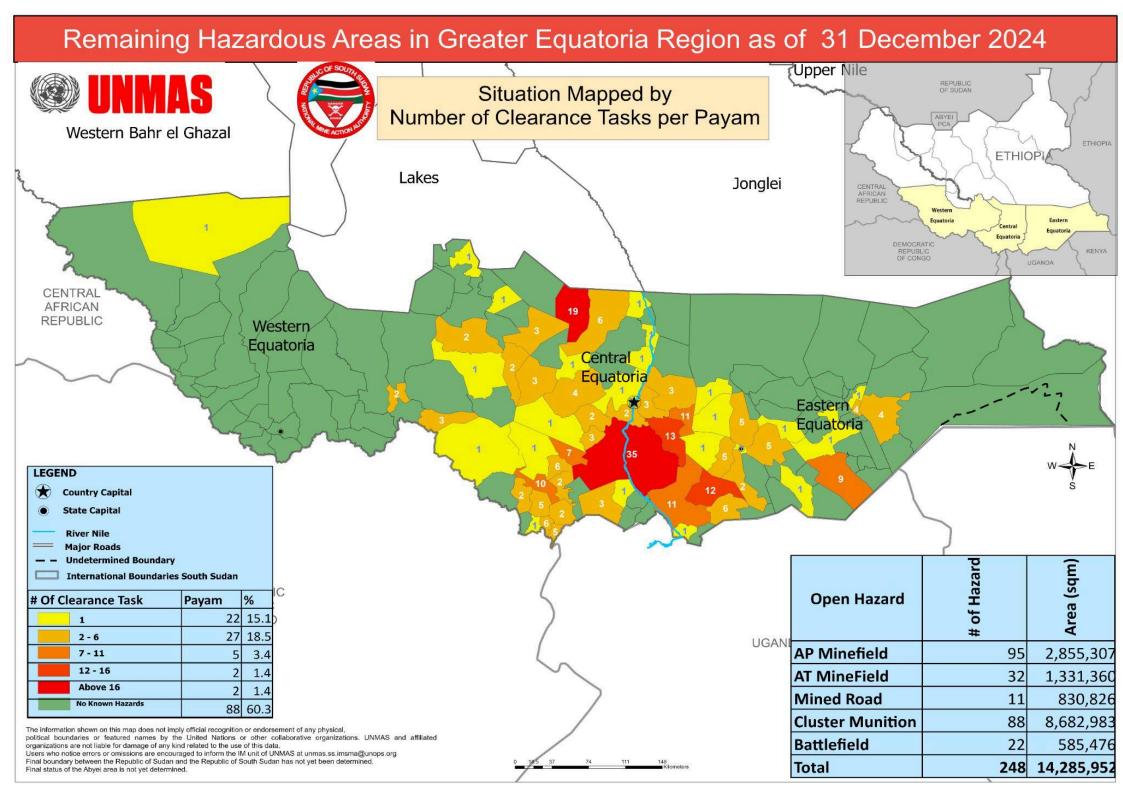
The maintenance of peace, that saw the reconstitution of the Revitilized Transitional Government of National Unity (RTGoNU) on February 22, 2020, will be critical to the timely delivery of the clearance plans outlined in this extension request. Nowhere is this more important than in Equatoria where the majority of clearance tasks remain. Unfortunately, at the time of writing, parts of Equatoria are still inaccessible because of ongoing activities by armed actors n, which is inhibiting efforts to undertake clearance. It is reasonable to assume that this fighting will abate in time for the appropriate scale of clearance activities to resume in order to meet South Sudan's clearance obligations. However should peace not be established and sustained across the Greater Equatoria region, then this plan will not be achieved.

Of the 248 area clearance tasks that remain in the Greater Equatoria region, 60 are considered suitable for clearance using mechanical assistance, 97 of these tasks are minefields comprising  $5,017,493m^2$ .

Within the Greater Equatoria region there are currently 11 sections of suspected mined roads amounting to 830,826m<sup>2</sup> of recorded contamination. This amounts to around 138km of road length. These are three stretches in Western Equatoria (the stretches are 1500m or less), seven stretches in Central Equatoria (47km in total) and one stretch in Eastern Equatoria (91km in total).

The maps on the following pages show the disaggregation of area clearance tasks across Greater Equatoria, first by showing the **number of tasks** per payam and then by showing the **total hazardous area** per payam. The strong correlation between the two maps shows that there is a strong relationship between the number of mined areas and their estimated size. This strong correlation suggests that the information for Greater Equatoria is very reliable.





# 10.2 Remaining Contamination in the Greater Bahr El Ghazal region

Table 10.3: All remaining known contamination the Greater Bahr El Ghazal Region

|        | Minefield Mined Roads |           | Cluster<br>Munitions |           | Confrontation<br>Area |               | All HA     |           |            |           |
|--------|-----------------------|-----------|----------------------|-----------|-----------------------|---------------|------------|-----------|------------|-----------|
| State  | # of HA               | Area(Sqm) | # of<br>HA           | Area(Sqm) | # of<br>HA            | Area(Sqm<br>) | # of<br>HA | Area(Sqm) | # of<br>HA | Area(Sqm) |
| Lakes  | 1                     | 31,708    | 0                    | 0         | 2                     | 0             | 5          | 574,067   | 8          | 605,775   |
| WBEG   | 2                     | 64,558    | 1                    | 138,320   | 3                     | 132,707       | 1          | 5,681     | 7          | 341,266   |
| NBEG   | 3                     | 71,143    | 0                    | 0         | 0                     | 0             | 1          | 26,673    | 4          | 97,816    |
| Warrap | 2                     | 101,184   | 0                    | 0         | 1                     | 93,000        | 0          | 0         | 3          | 194,184   |
| Total  | 8                     | 268,593   | 1                    | 138,320   | 6                     | 225,707       | 7          | 606,421   | 22         | 1,239,041 |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

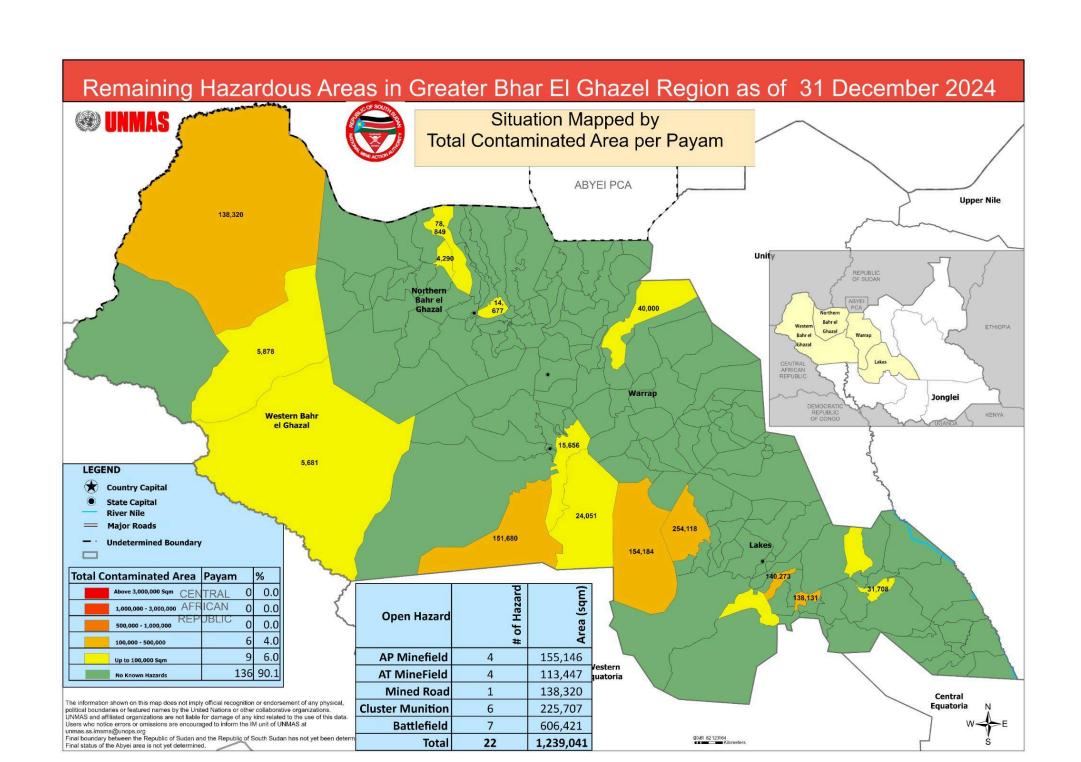
Table 10.4: Remaining known contamination in the Greater Bahr El Ghazal region disaggregated by confirmed and suspected hazardous area

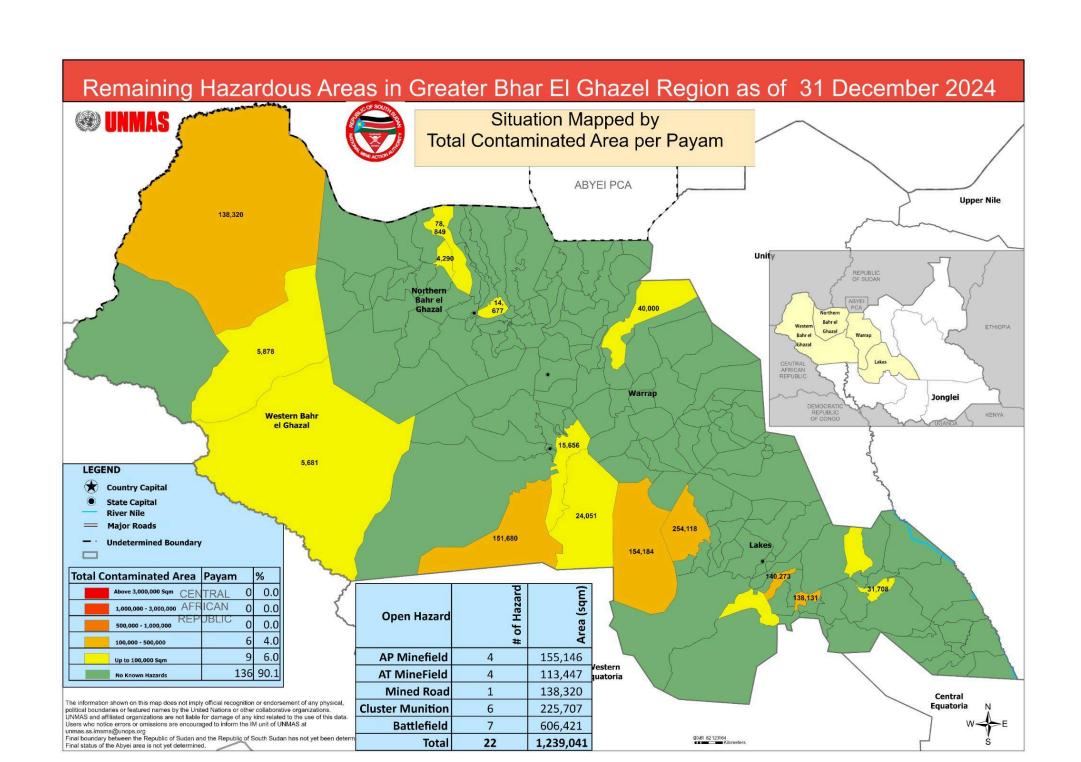
|        | State              | Lakes   | WBEG    | NBEG   | Warrap  | Total     |
|--------|--------------------|---------|---------|--------|---------|-----------|
|        | # of all HA        | 8       | 5       | 4      | 3       | 20        |
| CUA    | Area in SQM        | 605,775 | 144,266 | 97,816 | 194,184 | 1,042,041 |
| CHA    | # of AP minefields | 0       | 1       | 2      | 0       | 3         |
|        | AP area in SQM     | 0       | 58,680  | 56,466 | 0       | 115,146   |
|        | # of all HA        | 0       | 2       | 0      | 0       | 2         |
| CUA    | Area in SQM        | 0       | 197,000 | 0      | 0       | 197,000   |
| SHA    | # of AP minefields | 0       | 0       | 0      | 1       | 1         |
|        | AP area in SQM     | 0       | 0       | 0      | 40000   | 40,000    |
|        | # of all HA        | 8       | 7       | 4      | 3       | 22        |
| Totala | Area in SQM        | 605,775 | 144,266 | 97,816 | 194,184 | 1,239,041 |
| Totals | # of AP minefields | 0       | 1       | 2      | 1       | 4         |
|        | AP area in SQM     | 0       | 58,680  | 56,466 | 40,000  | 155,146   |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

**Eight minefields and one mined road remain in the Greater Bahr El Ghazal region**. These are believed to contaminate a total area of 26.8 Ha. Four of these minefields are believed to contain Anti-Personnel mines and contaminate 155,146 m². There are also two tasks in Northern Bahr El Ghazal that are suitable for mechanical clearance that extends to 56,466m².

There is currently one stretch of road that is reported to be mined in the Greater Bahr El Ghazal region totalling 24km





# 10.3 The Greater Upper Nile Region

Table 10.5: All remaining known contamination the Greater Upper Nile Region

|         | Minefields |           | Mined Roads |           |            | Cluster<br>Munitions |            | ontation Area | All HA     |           |
|---------|------------|-----------|-------------|-----------|------------|----------------------|------------|---------------|------------|-----------|
| State   | # of<br>HA | Area(Sqm) | # of<br>HA  | Area(Sqm) | # of<br>HA | Area(Sqm)            | # of<br>HA | Area(Sqm)     | # of<br>HA | Area(Sqm) |
| Jonglei | 19         | 2,326,803 | 7           | 1,753,146 | 7          | 419,639              | 1          | 110,526       | 34         | 4,610,114 |
| UNS     | 11         | 491,153   | 5           | 377,573   | 4          | 203,429              | 6          | 296,476       | 26         | 1,368,631 |
| Unity   | 0          | 0         | 2           | 819,903   | 0          | 0                    | 1          | 15,922        | 3          | 835,825   |
| Total   | 30         | 2,817,956 | 14          | 2,950,622 | 11         | 623,068              | 8          | 422,924       | 63         | 6,814,570 |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table 10.6: Remaining known contamination in the Greater Upper Nile region disaggregated by confirmed and suspected hazardous area

|        | State              | Jonglei   | Unity   | Upper Nile | Total     |
|--------|--------------------|-----------|---------|------------|-----------|
|        | # of all HA        | 18        | 3       | 21         | 42        |
| СНА    | Area in SQM        | 1,472,514 | 835,825 | 1,035,165  | 334,504   |
| СПА    | # of AP minefields | 3         | 0       | 5          | 8         |
|        | AP area in SQM     | 208,802   | 0       | 105,543    | 314,345   |
|        | # of all HA        | 16        | 0       | 5          | 221       |
| CUA    | Area in SQM        | 3,137,600 | 0       | 333,466    | 3,471,066 |
| SHA    | # of AP minefields | 7         | 0       | 0          | 7         |
|        | AP area in SQM     | 1,618,763 | 0       | 0          | 1,618,763 |
|        | # of all HA        | 21        | 3       | 26         | 63        |
| Totala | Area in SQM        | 4,610,114 | 835,825 | 1,368,631  | 6,814,570 |
| Totals | # of AP minefields | 10        | 0       | 5          | 15        |
|        | AP area in SQM     | 1,827,565 | 0       | 105,543    | 1,933,108 |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

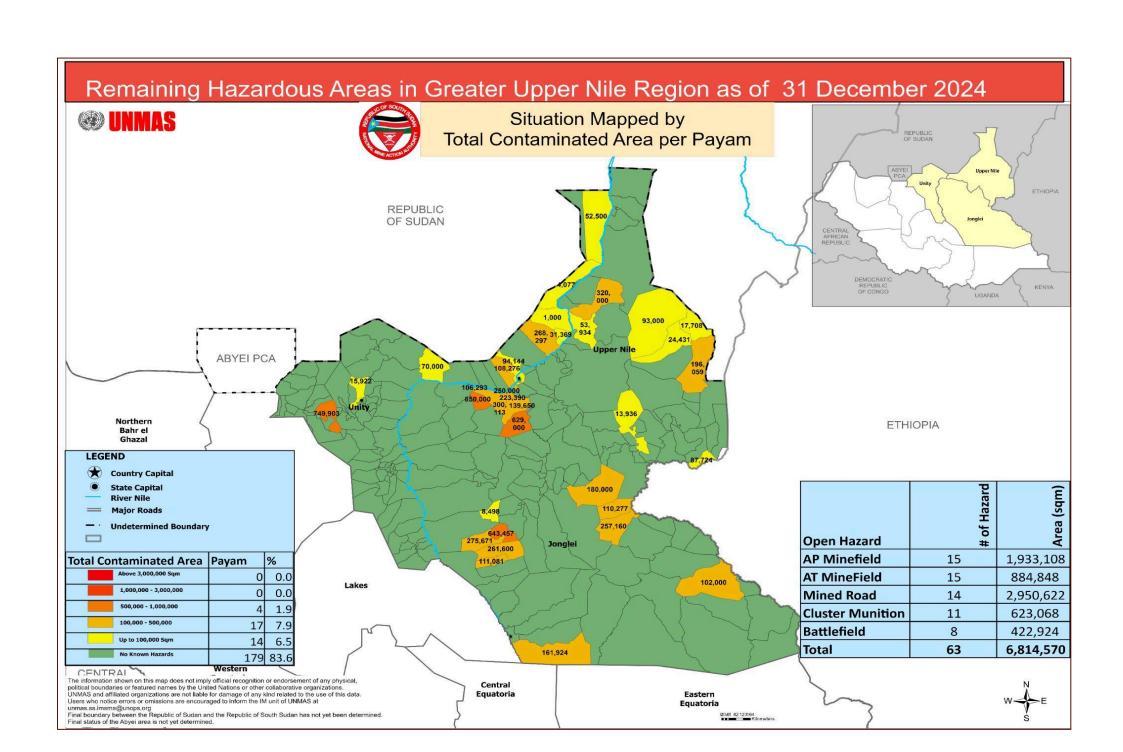
Across the Greater Upper Nile region there remain 30 minefields, 14 mined roads, 11 cluster munitions strikes and 8 battle areas. The estimate of contamination currently extends to more than 6.8 square kilometres.

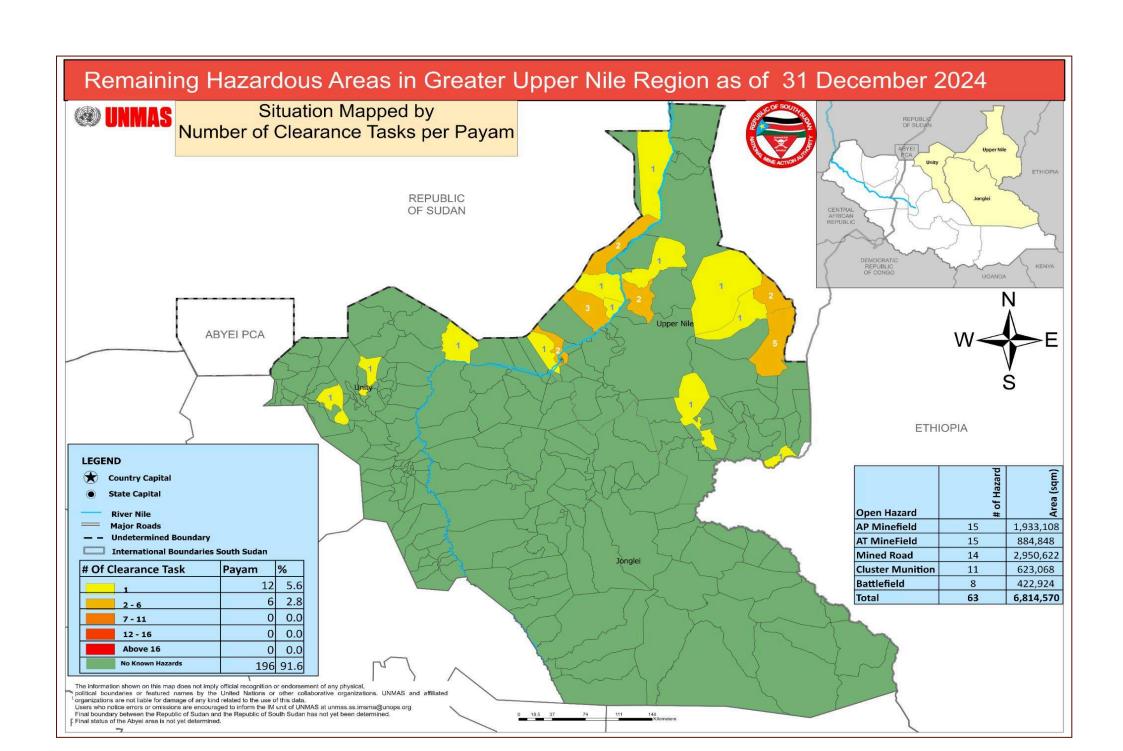
Six of the largest AP minefields in the database are located in the hard-to-reach areas of the Greater Upper Nile region. They have never been accessed since South Sudan requested for an extension. The six minefields make up 40% of the AP minefields. Accordingly, these hazardous areas have been prioritised for re-survey as soon as access permits, and it is assumed that the majority of this area will in due course be cancelled. A list of the tasks designated for resurvey is presented within Annex A of this report.

Of the 63 area clearance tasks that remain in the Greater Upper Nile region, 15 are considered suitable for clearance using mechanical assistance comprising 2,171,887m<sup>2</sup>.

There are seven stretches of mined roads in Jonglei that together amount to 141km, five roads in the Upper Nile (63km), and two stretches of highway in Unity that is 69km long. So together the mined roads of the Greater Upper Nile region account for 2,950,622 m<sup>2</sup> of contamination which equates to 273km of alignment.

The Greater Upper Nile region has been severely impacted by the changing global climatic changes where an unprecedented flooding occurred in 2020 and the situation has worsened with every rain season. The flooding has affected access to some of the known mined areas. Unfortunately, during the period of this extension request, some of the locations in this region may never be accessed if the flooding situation remains.





# 11 Nature and extent of the remaining Article 5 challenge: qualitative aspects

Mine clearance efforts in South Sudan will continue to be hindered by the extraordinary logistical challenge that undertaking any clearance task involves. The size of the country, the poor state of its infrastructure and the effects of the seasonal rains means that clearance in much of the country is only possible for eight months of the year.



Figure 11.1: Heavy truck stuck on a muddy road in South Sudan. Source UNICEF South Sudan

Heavy seasonal rains render many roads impassable for several months each year. Because of this, the demining season in the country is reduced to eight months of productive operations. Moving heavy machines the length of the country is particularly problematic. Machines are generally moved up country by barge in a trip that takes two months.

South Sudan has further suffered in recent years by flooding which has extended into the regular demining season thus further reducing the opportunity to undertake clearance activities in large parts of the country. The flooding that affected South Sudan in 2024 directly affected more than 1.3 million people and its impact on livestock and agricultural production will take years to recover. The impact on natural resources will lead South Sudanese to gather natural resources from mined areas.



Figure 11.2: Dykes protect the main IDP (internally displaced persons) camp in Bentiu.© UNHCR/Andrew McConnell

# PEOPLE AFFECTED BY FLOODS

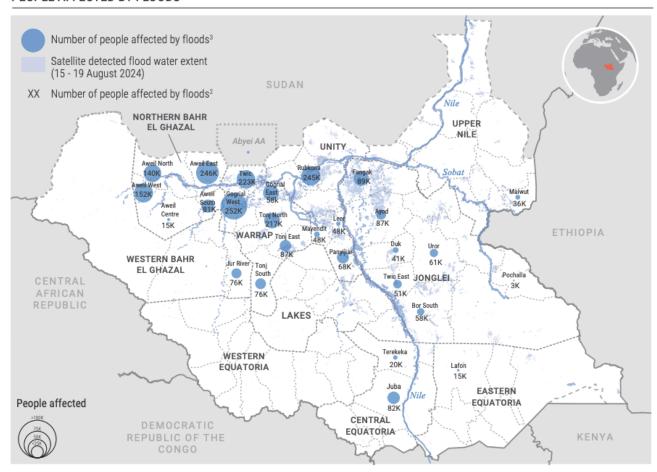


Figure 11.3: Map showing flood affected population in South Sudan. Source: OCHA

South Sudan faces a further challenge in that it has become increasingly clear that the methodology used to clear roads at the start of the clearance effort was flawed. The methodology was based around a combination of vapour detection and the use of rollers (to initiate detonation). The poor build quality of some of the mines used led to the rollers simply crushing fuzes rather than initiating them, and as a result a number of mines that remained in heavily trafficked roads have been subsequently uncovered through the effects of weathering and resulted in the need for re-clearance of roads that were previously considered safe. This occasional use of new anti-vehicle mines as part of the on-going fighting has further complicated this situation. This additional burden has diverted clearance resources from the effort to clear AP mines in South Sudan. In response to this challenge, South Sudan has embraced modern technology, in the form of handheld ground penetrating radar to achieve clearance rates of 700m linear length of road per day (4,200m²/day per road clearance team).

The impact of this trend has been the requirement to re-clear roads, which in turn diverts resources that would otherwise have been used to advance the clearance of AP mines in South Sudan.

# 12 Circumstances that impeded compliance during previous extension period

Despite the optimism of an independent South Sudan, almost throughout the period of its independence there has been fighting somewhere in the country, sometimes politically driven but often based on land rights or other inter-communal disputes. The divisions within the country have resulted in many parts of it being inaccessible to mine action teams for extended periods.

Compounding the difficulties of security related access restrictions, the poor state of infrastructure and seasonal rains degrade many of the roads to a point that they are either impassable or so damaged that they cannot be relied upon for a casualty evacuation. In addition, the recent years have seen severe flooding. As a result of this, demining activity in South Sudan is severely curtailed in this period to the extent that the regular demining "season", in which the majority of mine clearance takes place in South Sudan, is limited to the months of November or, in recent years, to December, through until June. This shortened demining year impedes productivity.

The on-going turmoil, particularly in the period post 2013, has led to millions of South Sudanese being displaced and forced to shelter in displacement camps. This displacement has led to the collapse of agricultural production and has brought much of the population to the edge of famine. This economic backdrop has understandably impacted upon the climate of support for mine action funding, as other areas of immediate support have been prioritised.

Finally, the ever-present security threats have led more than a million South Sudanese to flee the country, and included in those numbers who have sought safety are many trained demining personnel.

# 12.1 Humanitarian, economic, social and environmental implications of the remaining mined areas

Minefields contaminate or deny access to land that would otherwise be used productively. At times, circumstances or lack of knowledge about the presence of mines leads community members to put themselves in danger by using or transiting through contaminated land. Minefields limit agriculture, grazing cattle, and the use of land for natural resources. In addition, minefields have been found around schools and clinics, and in a country where a significant

amount of travel is done by foot, minefields make travel extremely dangerous. The table below shows the distance of the minefield from different facilities and use of the land, showing the prominence of blockages of agricultural land, roads, and water points.

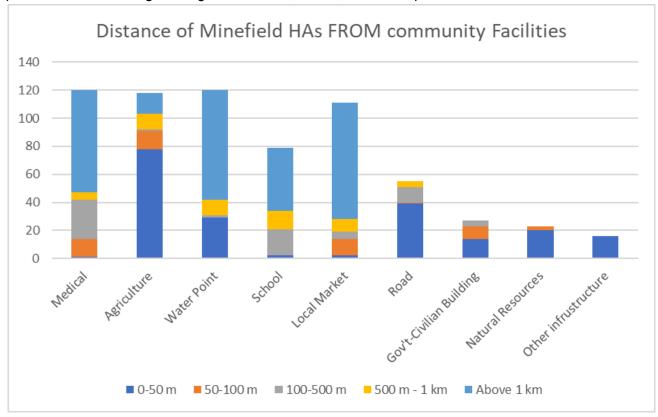


Figure 12.1: Social-economic impact of EO contamination in South Sudan. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

## 12.2 Agriculture / Livestock

Agricultural land is most likely to be within or very close to minefield HAs. Of the 114 AP minefields for which data is available, 47.3% of the tasks are located less than 50m from agricultural land, as shown in figure 1.4 Furthermore, there is significant overlap between the densest minefield contamination and the most fertile land, as shown on the map in the next page.

Comprehensive data on livestock accidents is not available. However, the risk to livestock cannot be overstated. A large proportion of the South Sudanese population are from cattle herding communities. In these communities, cattle represent wealth; without sufficient cattle, young men cannot marry and the family will not have a good place in society. The death of any cattle therefore represents a major loss of wealth for the family.

<sup>&</sup>lt;sup>4</sup> Data from UNMAS/IMSMA

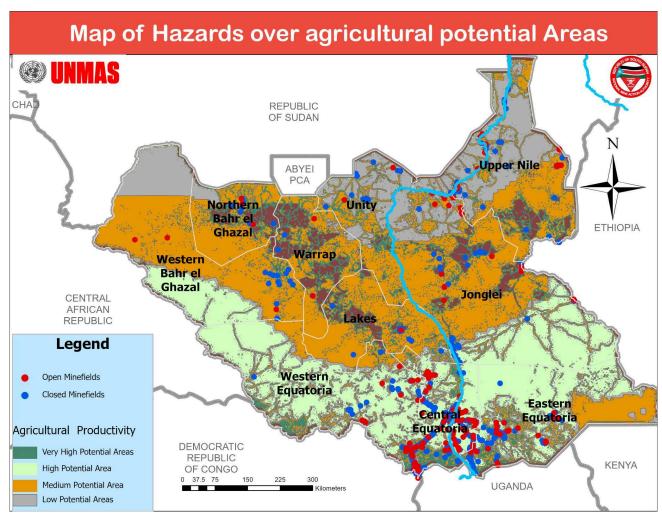


Figure 12.2: Map showing open (red) and closed (blue) hazardous area over map of agricultural potential (green indicates high agricultural potential; amber medium agricultural potential, and grey low agricultural potential.

#### 12.3 Infrastructure / community development

Minefields affect the ability of community members to reach water points, schools, health clinics and other services and infrastructure.. As towns developed in areas that housed barracks for the SAF and SPLA, communities and services for these communities in many cases may end up being developed near minefields originally laid to protect the barracks. Most South Sudanese depend on boreholes for access to water. Of the 165 minefields for which data is available, 17.6% are located less than 50m from a water point.

## 12.4 Natural resources

The importance of natural resources to communities in South Sudan must not be understated. Land, which at first glance may appear to be unused, is used to burn charcoal (for home use and for sale), graze cattle and other livestock, collect fruits (for food and for making oil), hunting, and collecting honey. Because of the importance of these natural resources, community members may venture off known roads and known safe paths into unknown territory to collect natural resources, putting themselves at greater risk for accidents. Collecting food, water, and wood accounts for 4.8% of reported accidents, and of the 165 minefields for which data is available, 12.12% are located less than 50 metres from land use for natural resources, as shown in figure 3.

#### 12.5 Access / Displacement / Returns

Victim data shows that travelling was the most common activity when accidents occurred. The population of South Sudan is very mobile, and significant amounts of travel are conducted by foot. Accidents while travelling make up the highest share of activities at the time of the accident for both men and women, as shown in the table below of accidents (mine and other ERW) by gender and age, which uses accident data from 2000 – 31 December 2024.<sup>5</sup>

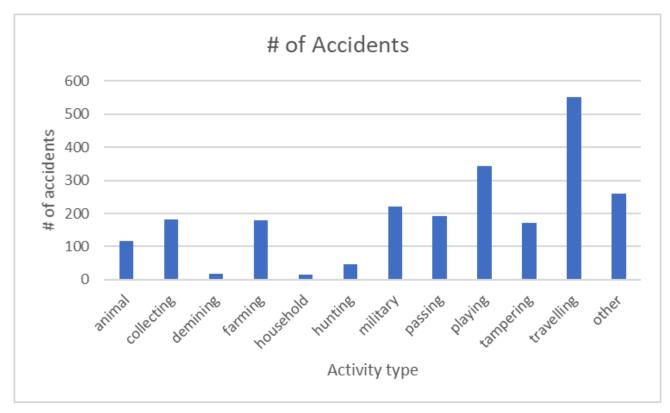


Figure 12.3: Activities during EO accidents. Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

## 12.6 Accidents<sup>6</sup>

Accident data in South Sudan is limited by low levels of reporting. Accident data disaggregates between the types of explosive hazards, thus accident data includes accidents due to AP mines, AT mines, remnants of cluster munitions, and other UXO. A general trend can be observed. Men and boys are most likely to be the victims of accidents: men are victims/survivors make up 24% of accidents, males age unknown make up 0.5%, and boys make up 49.7% of victims and survivors. Although women and girls are less likely to be the victim of an accident, they are slightly overrepresented in accident deaths: 17% of girl victims died, while 65% of boy victims died; 6% of women victims died, whereas 13% of men victims died.

Unsurprisingly given traditional gender norms, women are most likely to be involved in an accident while doing household work, with 80% of household work accident victims being

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<sup>&</sup>lt;sup>5</sup> Data provided by Ayuath Moses, UNMAS, 31 December 2024

<sup>&</sup>lt;sup>6</sup> Accident data is not disaggregated by device type, as this is rarely known at the time of the report. Therefore, this data includes AP mines as well as AT mines, cluster munition remnants, and other ERW.

<sup>&</sup>lt;sup>7</sup> Data from UNMAS/IMSMA, 2000 – July 2018, provided by Mohammad Kabir Rahimi on 15 August 2018. When gender is known but not age, the fatality rate is similar: 28% of females of unknown age died and 30% of males of unknown age died.

women. Although accidents involving household work make up only 26% of the total<sup>8</sup>; these accidents are much more likely to be fatal; 60% of household work accidents were fatal.<sup>9</sup>

# 13 Amount of time being requested

South Sudan is requesting an extension of four years, (1 July 2026 - 30 June 2030) in order to complete the removal and destruction of all anti-personnel landmines on its territory. Thus, South Sudan intends to complete the clearance of all known AP minefields within its territory by 30 June 2030.

#### Rationale for the time requested

The Government of South Sudan is committed to the Oslo Action Plan and intends to clear its minefields to the fullest extent possible by 2030.

The rationale for the timeframe requested is based on the belief that South Sudan now has an accurate assessment of the extent of its contamination and a clear understanding of the clearance requirement to achieve completion. The detailed rationale for the requirements for both the number and type of teams as well as the number of years they are needed for is presented in paragraph 14 below.

# 14 Assumptions

South Sudan's plan for the clearance of contaminated areas as outlined in this extension request is based on five key assumptions:

- 1. Freedom of access, no resumption of fighting.
- 2. Sustained or increased funding.
- 3. Few additional minefields are recorded.
- 4. That most of the remaining recorded hazards are re-surveyed and where applicable, cancelled.
- 5. There will be no global or regional shock(s) affecting mobility of personnel similar COVID-19 in 2020.
- 6. That the following clearance rates can be sustained:
  - i That manual demining rates will average 20m² per deminer per day and that 15 lane teams will deploy and clear 300m² per day.
  - ii That manual BAC teams will clear 1,000m² per day (not applicable to AP threat).
  - iii The mechanical clearance teams will clear 2,000m² per day.

### Assumption One – Freedom of Access, no resumption of fighting.

This plan assumes the sustainment of peace and freedom of access for demining teams. Since the signing of the Revitalised Agreement on the Resolution of the Conflict in South Sudan (R-ARCSS) on 12 September 2018, the security situation across the country has improved, and there is now access to many areas that security issues previously rendered inaccessible. If

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<sup>&</sup>lt;sup>8</sup> Data year 2000 – August 2018, from IMSMA.

<sup>&</sup>lt;sup>9</sup> Any discussion of accident data must note the significant underreporting of accidents. Accidents at home potentially may be easier to identify as a mine/ERW accident.

all remaining minefields are to be cleared within the period laid out in this extension request, security will need to continue to remain permissive in contaminated areas and in Juba. Renewed fighting in task locations would hinder the deployment of clearance teams, while insecurity in Juba would impose significant logistical challenges on clearance operators and their ability to coordinate and support field-level operations.

## Assumption Two – Sustained Funding

The provision of sustained and adequate funding is a second key assumption underpinning this extension request. Currently the mine action programme in South Sudan is supported with donations that amount to \$33million per year, however the largest single contributor to this figure is the contribution made (in 2024/25 the contribution was \$27.3million) by UNMISS as the work of UNMAS is in alignment with the Mission's mandate to protect civilians and help build durable peace. Any revisions to the Mission's mandate, and more importantly any significant reduction in Mission funding could well impact upon the support that UNMAS receives. Indeed, and somewhat paradoxically, the success of the peace agreement will almost certainly stimulate a reduction in the UNMISS budget, which may well affect support for UNMAS. There is also a strong possibility that UNMAS will be tasked by UNMISS to direct teams to engage in the management of weapons and ammunition resulting from the ongoing peace process, in turn this will draw clearance teams away from demining tasks, which will of course have a negative impact on the overall clearance process.

It should also be noted that the UNMISS/UNMAS funded teams are primarily deployed to enhance the mobility of the Mission and to ensure that humanitarian interventions are not impeded by the dangers of unexploded ordnance. The very widespread dispersal of unexploded ordnance across South Sudan means that inevitably a significant portion of clearance work is undertaken in direct support of humanitarian efforts, as a precautionary measure and therefore is done so at the opportunity cost of the clearance of known minefields.

Therefore, for clearance to continue at the rate required to adhere to the timelines outlined in this document, funding for clearance operators in the coming years will need to be equal to or greater than what has been received annually over the last several years. UNMAS is trying to maintain this pace, having requested an identical budget for 2025/26.

#### Assumption Three – Few additional minefields are recorded

The current projection is based upon the understanding that there are few AP minefields remaining that have not been recorded. Although no recent systematic survey has taken place, South Sudan is confident that after 13 years of sustained mine action that it does have an accurate picture of the total contamination and while recognizing that some currently unknown AP minefields will be recorded, it is confident that their impact will not significantly impact upon the plan. The last year of this plan is dedicated to the clearance of unknown tasks and to re-survey of areas to insure that none are missed.

# Assumption Four - That the largest recorded hazards are cancelled, or drastically reduced, through non-technical and technical survey

Six of the largest AP minefields in the database are located in the hard-to-reach areas of the Greater Upper Nile region. They have never been accessed since South Sudan requested for an extension. The six minefields make up 40% of the AP minefields. The experience of all demining conducted in South Sudan so far is that such large minefields do not exist and it is assumed that once safe access to this area is achieved that these tasks will either be cancelled or drastically reduced.

# Assumption Five - There will be no global or regional shock(s) affecting mobility of personnel.

In 2020, the whole world came to a halt as countries shut down their borders in an effort to prevent or mitigate the spread of Coronavirus (COVID-19). In addition to shutting down its international border, South Sudan also prohibited inter-state movements. As a result, all mine action clearance activities were halted. This plan assumes that there will be no such a shock in the future.

Similarly, this plan assumes that there would be no significant disease break outs in South Sudan during the implementation period and thereby disrupt clearance efforts by restricting movement of personnel.

**Assumption Six - That the clearance rates are sustained -** The clearance rates proposed are based on analysis of previous clearance and are therefore considered to be reasonable.

#### 15 Risk Factors

In line with the assumptions outlined above, the following risks have been identified, which could impact the successful completion of planned demining activities within this extension period:

- Insecurity: a resumption of fighting in areas of operation and/or in the capital could slow progress towards clearance targets or, if severe, halt operations entirely. One emerging insecurity risk is the resumption of fighting in the Bo River Area which is at the border of the Western Barl El Ghazal State and the Western Equatoria States. In addition, there have been several security incidents in Nassir county in Upper Nile State. The fighting is between the SSPDF and SPLA-IO and/or affiliated forces which could potentially spread to other regions if the skirmishes are not contained. The ongoing conflict in Sudan between the Sudan Armed Forces (SAF) and Rapid Support Forces (RSF) could potentially contribute to cases of insecurity in northern regions within South Sudan. Both countries share a long history together and events occurring in Sudan could potentially lead to insecurity incidents in South Sudan.
- Economic: At the writing of this update, the South Sudan economy is undergoing a challenging phase of severe inflation. A continued deterioration of South Sudan's economy could impact clearance operations. For example, a nationwide fuel shortage resulting from high inflation and reduced purchasing power could interrupt operations and impact the ability to achieve the clearance targets detailed in this extension request.
- Environmental: environmental obstacles resulting from the annual wet season are well known and have been factored into the timeline of this extension request. However, extreme weather patterns that led to serious damage to national or local infrastructure could create unforeseen delays in clearance operations. Moreover, some of the remaining minefields in South Sudan are located in remote, hard-to-reach areas that could be more heavily impacted by such environmental access constraints.
- Global Climatic Changes: In 2020, South Sudan witnessed an unprecedented flooding which has not been witnessed for the past 60 years according to UNICEF. Large parts of the Greater Upper Nile was and remains flooded to date. This phenomenon was caused by the global climatic changes. The areas that are

flooded has cut off access roads and known minefields and other hazardous areas remain under water.

• **Funding**: a reduction in the annual funding available for clearance operations in South Sudan would increase the time required to complete the clearance of the country, and could hinder adherence to the timeline set out in this document.

As stated previously, as at 31 December 2024, the UNMISS funded 75% of all mine action in South Sudan. However, there was a drastic reduction in this budget in the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2025 leading to the loss of nine manual clearance teams and four mechanical clearance teams. This reduction is most likely going to be the norm for the subsequent years.

In order to mitigate the funding problem, the NMAA will take the following initiatives to bridge the national government resource gaps;

# 1. Engaging with line ministries for budget integration

NMAA is advocating for inclusion of mine action funding in national ministries budgets and in particular; the Ministry of Roads and Bridges to fund mine action teams that will support the ministry in conducting clearance for proposed road construction routes.

# 2. Bilateral engagement through the South-to-South initiative

NMAA is actively engaging with JICA (Japan International Cooperation Agency) via the South-to-South Cooperation Initiative, which aims to build technical and operational mine action capacity in Sub-Saharan Africa.

This engagement includes: bilateral resource mobilization, potential technical exchanges between South Sudan and other African mine action programs with the well developed Cambodia Mine Action Center (CMAC) and strategic knowledge transfer in planning, clearance, and institutional strengthening

#### 3. Leveraging enabled sectors through the humanitarian partners

UNMAS is actively engaging other humanitarian actors to embed mine clearance teams to support their broader humanitarian responses. For example, UNMAS is engaging UNFAO to explore ways the UN agency could directly find mine clearance components to support in agriculture recovery.

#### 4. Expanding its donor base

South Sudan is already taking steps to expand its donor base by engaging non-traditional partners to diversify mine action funding. The NMAA has begun outreach efforts to Gulf States such as Qatar and Kuwait. As part of this engagement, generic concept notes have been shared with these countries to introduce mine action priorities and explore potential areas of support.

• Failure to reconfigure the clearance capacity: One of the principal obstacles to efficient clearance is the relatively small size of the majority of the current clearance teams. It is therefore important that the clearance organisations working in South Sudan reconfigure their teams to deliver a more efficient overall clearance capacity. This transformation has commenced, with UNMAS opting to field eight fifteen lane demining teams from November 2020, but this move needs to be replicated across the sector in order to deliver the required clearance capacity. However, replicating this approach across the sector remains a challenge, primarily due to funding limitations faced by implementing partners. Larger teams require significantly more resources to operate, and the current funding levels do not adequately support such an expansion.

# 16 Detailed work plan for the period of the requested extension

The logistical difficulties of operating in South Sudan, has necessitated the approach to the work plan for the remaining clearance requirement to be viewed at the regional level. Thus the requirements in terms of clearance assets for each part of the country are addressed here.

# **General Approach**

The table of all remaining clearance tasks is presented as Annex A. This table shows the approach to be adopted for every single area clearance task in the current South Sudan contamination database. This table is the base record upon which all of the tables in this section are based.

## 16.1 Requirements for the Completion of the Greater Equatoria Region

In order to determine the requirement for the different types of clearance teams, the problem has been broken down into known manual and mechanical clearance requirements for both minefields and cluster strikes/battlefields. It also identifies those tasks for which there is currently no definition beyond the fact that they have been identified for re-survey. For these tasks, for the purposes of planning, it is assumed that the current estimates are correct and the clearance approach taken is that which is least efficient.

#### Clearance requirement for known minefields

Within the Greater Equatoria region there are 50 manual demining tasks and 47 that can be addressed using mechanical support. It is important to note that these minefields in the Greater Equatoria region are particularly well defined, in comparison to the rest of the country, and that the 100 remaining minefields each average just 51,000m². It is therefore unlikely that survey action will lead to any significant reduction in the clearance requirement for these tasks, and thus full clearance is planned for these tasks. Those tasks where it is believed that additional survey work will have an impact on clearance are discussed below.

Using the established clearance rates of 20m² per demining lane per day, 15 lanes per team and 22 working days per month, and 2,000m² per mechanical team per day. We may deduce that the overall requirement for manual and mechanical demining teams, quantified in terms of operational demining team months, from Greater Equatoria is as follows:

Table 16.1.1: Clearance assets required for AP Minefields in the Greater Equatoria Region

|             |                      | AP Minefields           |                                  |                          |                             |                                      |  |  |  |  |  |
|-------------|----------------------|-------------------------|----------------------------------|--------------------------|-----------------------------|--------------------------------------|--|--|--|--|--|
| State       | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>mechanical<br>tasks | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |  |  |  |  |  |
| C Equatoria | 27                   | 321,492                 | 49                               | 25                       | 1,194,380                   | 27                                   |  |  |  |  |  |
| E Equatoria | 8                    | 265,318                 | 40                               | 5                        | 346,591                     | 8                                    |  |  |  |  |  |
| W Equatoria | 0                    | 0 0 0 4 308,805 7       |                                  |                          |                             |                                      |  |  |  |  |  |
| Sub Total   | 35                   | 586,810                 | 89                               | 29                       | 1,849,776                   | 42                                   |  |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table 16.1.2: Clearance assets required for AT Minefields in the Greater Equatoria Region

|             |                      |                         | A                                | AT Minefields            |                             |                                      |
|-------------|----------------------|-------------------------|----------------------------------|--------------------------|-----------------------------|--------------------------------------|
| State       | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>mechanical<br>tasks | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |
| C Equatoria | 12                   | 248,606                 | 38                               | 9                        | 92,289                      | 2                                    |
| E Equatoria | 3                    | 6,658                   | 1                                | 4                        | 848,644                     | 19                                   |
| W Equatoria | 0                    | 0                       | 0                                | 0                        | 0                           | 0                                    |
| Sub Total   | 15                   | 255,264                 | 39                               | 13                       | 940,933                     | 21                                   |

Thus, the clearance of these minefields will require 129 Manual team-months<sup>10</sup> and 66 Mechanical team-months.

## Clearance requirement for known cluster strikes and battle areas

There remain 86 cluster strikes and 22 battle areas to be cleared within Greater Equatoria. It is assumed that the clearance of cluster munition strikes and battle areas will be **cleared by manual teams at a rate of 1,000m² per day and by mechanical teams at a rate of 2,000m² per day**, and such teams work for ten months per year (22 days per month). On this basis, the requirement is as follows:

Table 16.1.3: Clearance assets required for cluster munitions in the Greater Equatoria Region

|             |                      | Cluster                 | r munitions                      | strikes and Batt         | tlefield clearanc           | e tasks                              |
|-------------|----------------------|-------------------------|----------------------------------|--------------------------|-----------------------------|--------------------------------------|
| State       | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>mechanical<br>tasks | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |
| C Equatoria | 41                   | 3,205,130               | 146                              | 8                        | 1,021,055                   | 24                                   |
| E Equatoria | 39                   | 3,259,286               | 149                              | 5                        | 901565                      | 21                                   |
| W Equatoria | 6                    | 339,733                 | 16                               | 0                        | Nil                         | 0                                    |
| Sub Total   | 86                   | 6,804,149               | 311                              | 13                       | 1,922,620                   | 45                                   |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Thus, the requirement is for 311 team-months of manual BAC teams and 45 team-months of mechanically assisted clearance teams.

# Areas prioritized for re-survey

There are 30 minefields and 11 cluster strikes that require re-survey in the region, but currently cannot be accessed because of on-going fighting or general insecurity. As such, it has been assumed that these tasks will be cleared in their entirety by manual clearance teams.

<sup>10</sup> A team-month is the product of one team working for one month (22 days).

Table 16.1.4: Survey assets required for the Greater Equatoria Region

|             | Δ                     | AP Minefields           |                                  |                      | Minefield               | ls                               | Cluster strikes/battle areas |                    |                                |  |
|-------------|-----------------------|-------------------------|----------------------------------|----------------------|-------------------------|----------------------------------|------------------------------|--------------------|--------------------------------|--|
| State       | #<br>manua<br>I tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | # Cluster tasks              | Area Cluster tasks | # of Cluster<br>Team<br>months |  |
| C Equatoria | 12                    | 183,395                 | 28                               | 2                    | 123,200                 | 19                               | 8                            | 355992             | 17                             |  |
| E Equatoria | 2                     | 44909                   | 7                                | 0                    | 0                       | 0                                | 1                            | 0                  | 0                              |  |
| W Equatoria | 2                     | 190417                  | 29                               | 0                    | 0                       | 0                                | 2                            | 185,698            | 9                              |  |
| Sub Total   | 16                    | 418,721                 | 64                               | 2                    | 123,200                 | 19                               | 11                           | 541,690            | 26                             |  |

Thus, there is a requirement of 83 team-months of a manual demining team and 26 team-months of a Manual BAC team.

# Requirement for road clearance

The early efforts at road clearance in South Sudan had mixed results relating to an over-reliance on the use of non-technical survey and search methodology that combined methods of detection aimed at detonating mines and the use of large loop style metal detectors. Flaws in this approach have resulted in the appearance of minimum metal anti-tank mines on relatively heavily trafficked roads.

This has resulted in a requirement to re-search/ roads, using more appropriate search equipment, that are invariably smooth surfaced with minimal vegetation. In field trials and recent clearance efforts, it has been established that a search team equipped with ground penetrating radar detectors can comfortably achieve 700 metres of linear length of road per day (which equates to 4,200m²/day). Although the expectation is that a significant portion of the suspect road length will be addressed through survey techniques, the planning for the clearance requirement is based on the idea that the complete sections of all suspect highways will be searched and thus this is considered to be a conservative basis of planning.

The requirement for road clearance work in Greater Equatoria is summarized in the table 16.1 below.

Table 16.1.5: Road Clearance assets required for the Greater Equatoria Region

| Road clearance/assessment tasks |                   |                 |  |  |  |  |  |
|---------------------------------|-------------------|-----------------|--|--|--|--|--|
| State                           | Area Manual tasks |                 |  |  |  |  |  |
| C Equatoria                     | 7                 | 281,279 (47km)  |  |  |  |  |  |
| E Equatoria                     | 1                 | 543,905 (91km)  |  |  |  |  |  |
| W Equatoria                     | 3                 | 5,642 (1km)     |  |  |  |  |  |
| Sub Total                       | 11                | 830,826 (138km) |  |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

So 138 km being cleared at 15.4km/month will require one team for 9 months.

#### **Survey Requirement**

Greater Equatoria is the most contaminated region of South Sudan. Thus, it is reasonable to assume that it will require the greatest survey capacity. South Sudan believes there will be a requirement throughout the clearance phase for two survey teams. These teams will not only

revisit tasks and aim to better define them but will also provide cover for Explosive Ordnance Disposal tasks that will arise for the foreseeable future.

## **Overall Clearance requirement for Greater Equatoria**

Thus, the total clearance requirement needed to fully address the needs of the known contamination and suspected in Greater Equatoria can be summarized as:

Table 16.1.6: Estimated team-month requirements by clearance type in the Greater Equatoria region

| Team type                             | Overall requirement (# team-months) |
|---------------------------------------|-------------------------------------|
| Manual demining                       | 129 months                          |
| Mechanical demining                   | 66 months                           |
| Manual BAC                            | 311 months                          |
| Mechanical Cluster Clearance<br>Teams | 45 months                           |
| Road Team                             | 9 months                            |
| Survey Team                           | Two teams for 5 years               |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

The same methodology for analysing the overall clearance requirement shall now be applied to the other regions.

# 16.2 <u>Requirements for the completion of the Greater Bahr El Ghazal Region</u> Clearance requirement for known minefields

Within the Greater Bahr El Ghazal region there are six manual demining tasks and two that can be addressed using mechanical support. Using the established clearance rates of  $20m^2$  per demining lane per day, 15 lanes per team and 22 working days per month, and  $2,000m^2$  per mechanical team per day. We may deduce that the overall requirement for manual and mechanical demining teams from Greater Bahr El Ghazal is as follows:

Table 16.2.1: Clearance assets required for AP Minefields in the Greater Bahr El Ghazal Region

|           | AP Minefields        |              |    |              |        |                                      |  |  |  |
|-----------|----------------------|--------------|----|--------------|--------|--------------------------------------|--|--|--|
| State     | #<br>manual<br>tasks | team   tasks |    | i Mechanicai |        | # of<br>Mechanical<br>Team<br>months |  |  |  |
| WBEG      | 1                    | 58,680       | 9  | 0            | 0      | 0                                    |  |  |  |
| NBEG      | 0                    | 0            | 0  | 2            | 56,466 | 2                                    |  |  |  |
| Warrap    | 1                    | 40,000       | 6  | 0            | 0      | 0                                    |  |  |  |
| Lakes     | 0                    | 0            | 6  | 0            | 0      | 0                                    |  |  |  |
| Sub Total | 2                    | 98,680       | 15 | 2            | 56,466 | 2                                    |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table 16.2.2: Clearance assets required for AT Minefields in the Greater Barl El Ghazal Region

|           |                      | AT Minefields           |                                  |                           |                             |                                      |  |  |  |  |  |
|-----------|----------------------|-------------------------|----------------------------------|---------------------------|-----------------------------|--------------------------------------|--|--|--|--|--|
| State     | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>mechanica<br>I tasks | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |  |  |  |  |  |
| WBEG      | 1                    | 5,878                   | 1                                | 0                         | 0                           | 0                                    |  |  |  |  |  |
| NBEG      | 1                    | 14,677                  | 2                                | 0                         | 0                           | 0                                    |  |  |  |  |  |
| Warrap    | 1                    | 61,184                  | 9                                | 0                         | 0                           | 0                                    |  |  |  |  |  |
| Lakes     | 1                    | 31,708                  | 5                                | 0                         | 0                           | 0                                    |  |  |  |  |  |
| Sub Total | 4                    | 113,447                 | 17                               | 0                         | 0                           | 0                                    |  |  |  |  |  |

There are six minefields remaining in the Greater Bahr El Ghazal region. Using the established clearance rates, these areas require 32 manual demining team months and two months of a mechanical team.

## Clearance requirement for known cluster strikes and battle areas

There remain 12 cluster strikes or battle areas to be cleared within Greater Bahr El Ghazal. It is assumed that the clearance of cluster munition strikes and battle areas will be **cleared by manual teams at a rate of 1,000m² per day and by mechanical teams at a rate of 2,0000m² per day**, and that such teams work for seven months per year (22 days per month).

Table 16.2.3: Clearance assets required for cluster munitions in the Greater Bahr El Ghazal Region

|           |                      | Cluster strikes and Battlefield clearance tasks |                      |     |                             |                                      |  |  |  |  |
|-----------|----------------------|---|----------------------|-----|-----------------------------|--------------------------------------|--|--|--|--|
| State     | #<br>manual<br>tasks | Area<br>Manual<br>tasks                         | Area # of Manual mec |     | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |  |  |  |  |
| WBEG      | 4                    | 138,388   | 7                    | Nil | 0                           | 0                                    |  |  |  |  |
| NBEG      | 1                    | 26,673  | 0                    | 0   | 0                           | 0                                    |  |  |  |  |
| Warrap    | 0                    | 0   | 0                    | 1   | 93,000                      | 2                                    |  |  |  |  |
| Lakes     | 7                    | 574,067   | 27                   | 0   | 0                           | 0                                    |  |  |  |  |
| Sub Total | 12                   | 739,128   | 34                   | 1   | 93,000                      | 2                                    |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Thus the requirement for cluster munitions clearance in Greater Bahr El Ghazal is 34 manual clearance and two mechanical clearance team months.

# Areas prioritized for re-survey

The region does not have any hazardous areas that require resurvey as described on Table 16.2.4 in the next page.

Table 16.2.4: Survey assets required for the Greater Bahr El Ghazal Region

|           |                      | Minefields              |   | Cluster strikes/battle areas |                       |                                |  |
|-----------|----------------------|-------------------------|---|------------------------------|-----------------------|--------------------------------|--|
| State     | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of Manual # Cluster Are team tasks months |                              | Area Cluster<br>tasks | # of Cluster<br>Team<br>months |  |
| WBEG      | 0                    | 0                       | 0   | 0                            | 0                     | 0                              |  |
| NBEG      | 0                    | 0                       | 0   | 0                            | 0                     | 0                              |  |
| Warrap    | 0                    | 0                       | 0   | 0                            | 0                     | 0                              |  |
| Lakes     | 0                    | 0                       | 0   | 0                            | 0                     | 0                              |  |
| Sub Total | 0                    | 0                       | 0   | 0 0 0                        |                       |                                |  |

# Requirement for road clearance

Table 16.2.5: Road Clearance assets required for the Greater Bahr El Ghazal Region

| Road clearance/assessment tasks |   |                |  |  |  |  |  |  |  |
|---------------------------------|---|----------------|--|--|--|--|--|--|--|
| State                           | State # Suspect roads Area Manual tasks |                |  |  |  |  |  |  |  |
| NBEG                            | 0                                       | 0              |  |  |  |  |  |  |  |
| WBEG                            | 1                                       | 138,320 (23km) |  |  |  |  |  |  |  |
| Warrap                          | 0                                       | 0              |  |  |  |  |  |  |  |
| Lakes                           | 0                                       | 0              |  |  |  |  |  |  |  |
| Sub Total                       | 1                                       | 138,320 (23km) |  |  |  |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

So 23km being cleared at 15.4km/month will require one team for 2 months.

# **Survey Requirement**

There will be a requirement throughout the clearance phase for a single Survey team. This team will not only revisit tasks and aim to better define them but will also provide cover for Explosive Ordnance Disposal tasks that will arise for the foreseeable future.

## Overall Clearance requirement for Greater Bahr El Ghazal

Thus the total clearance requirement needed to address the needs of the known contamination in Greater Equatoria can be summarized as:

Table 16.2.6: Estimated team-month requirements by clearance type in the Greater Bahr El Ghazal region

| Team type                          | Overall requirement (#team-months) |
|------------------------------------|------------------------------------|
| Manual demining                    | 32                                 |
| Mechanical demining                | 2                                  |
| Manual BAC                         | 34                                 |
| Mechanical Cluster Clearance Teams | 2                                  |
| Road Team                          | One team for 2 months              |
| Survey Team                        | One team for 5 years               |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

### 16.3 Requirements for the completion of the Greater Upper Nile region

# Clearance requirement for known minefields

In the Greater Upper Nile region there are 19 minefields remaining to be cleared. 12 of these can be cleared mechanically while the remainder will be cleared manually.

Table 16.3.1: Clearance assets required for AP Minefields in the Greater Upper Nile Region

|            | AP Minefields        |                         |                               |   |                             |                                      |  |  |  |
|------------|----------------------|-------------------------|-------------------------------|---|-----------------------------|--------------------------------------|--|--|--|
| State      | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of # mechanica team I tasks |   | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |  |  |  |
| Jonglei    | 0                    | 0                       | 0                             | 2 | 188,293                     | 4                                    |  |  |  |
| Upper Nile | 4                    | 95,543                  | 14                            | 1 | 10,000                      | 1                                    |  |  |  |
| Unity      | 0                    | 0                       | 0                             | 0 | 0                           | 0                                    |  |  |  |
| Sub Total  | 4                    | 95,543                  | 14                            | 3 | 198,293                     | 5                                    |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table 16.3.2: Clearance assets required for AT Minefields in the Greater Upper Nile Region

|            |                      | AT<br>Minefields        |                                  |                           |                             |                                      |  |  |  |  |
|------------|----------------------|-------------------------|----------------------------------|---------------------------|-----------------------------|--------------------------------------|--|--|--|--|
| State      | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>mechanica<br>I tasks | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |  |  |  |  |
| Jonglei    | 2                    | 30,000                  | 5                                | 4                         | 289,238                     | 7                                    |  |  |  |  |
| Upper Nile | 1                    | 41,982                  | 6                                | 5                         | 343,628                     | 8                                    |  |  |  |  |
| Unity      | 0                    | 0                       | 0                                | 0                         | 0                           | 0                                    |  |  |  |  |
| Sub Total  | 3                    | 71,982                  | 11                               | 9                         | 632,866                     | 15                                   |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Based on the established clearance rates, these tasks will require 26 team-months of manual demining support and 20 team-months of mechanical clearance support.

## Clearance requirement for known cluster strikes and battle areas

There remain 17 cluster strikes or battle areas to be cleared within Greater Upper Nile. It is assumed that the clearance of cluster munition strikes and battle areas will be **cleared by manual teams at a rate of 1,000m² per day and by mechanical teams at a rate of 2,0000m² per day**, and that such teams work for seven months per year (22 days per month). On this basis the requirement is for 8 team months of manual clearance and no requirement for mechanical clearance.

Table 16.3.3: Clearance assets required for cluster munitions in the Greater Upper Nile Region

| State      | Cluster strikes and Battlefield clearance tasks |                         |                                  |                           |                             |                                      |  |  |  |
|------------|---|-------------------------|----------------------------------|---------------------------|-----------------------------|--------------------------------------|--|--|--|
|            | #<br>manual<br>tasks                            | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>mechanica<br>I tasks | Area<br>Mechanical<br>tasks | # of<br>Mechanical<br>Team<br>months |  |  |  |
| Jonglei    | 6   | 344,165                 | 16                               | 0                         | 0                           | 0                                    |  |  |  |
| Upper Nile | 10  | 499,905                 | 23                               | 0                         | 0                           | 0                                    |  |  |  |
| Unity      | 1   | 15,922                  | 1                                | 0                         | 0                           | 0                                    |  |  |  |
| Sub Total  | 17  | 859,992                 | 40                               | 0                         | 0                           | 0                                    |  |  |  |

The requirement for Greater Upper Nile demining support is 40 team-months of a manual clearance team.

# Areas prioritized for re-survey

There are 8 AP minefields and two cluster strikes that require re-survey.

Table 16.3.4: Survey assets required for the Greater Upper Nile Region

|               |                       | AP Minefields |                                  |                      | AT Minefie              | lds                              | Cluster strikes/battle areas |                          |                                   |
|---------------|-----------------------|---------------|----------------------------------|----------------------|-------------------------|----------------------------------|------------------------------|--------------------------|-----------------------------------|
| State         | #<br>manua<br>I tasks |               | # of<br>Manual<br>team<br>months | #<br>manual<br>tasks | Area<br>Manual<br>tasks | # of<br>Manual<br>team<br>months | #<br>Cluster<br>tasks        | Area<br>Cluster<br>tasks | # of<br>Cluster<br>Team<br>months |
| Jonglei       | 8                     | 1,639,272     | 248                              | 3                    | 180,000                 | 27                               | 2                            | 186,000                  | 4                                 |
| Upper<br>Nile | 0                     | 0             | 0                                | 0                    | 0                       | 0                                | 0                            | 0                        | 0                                 |
| Unity         | 0                     | 0             | 0                                | 0                    | 0                       | 0                                | 0                            | 0                        | 0                                 |
| Sub Total     | 8                     | 1,639,272     | 248                              | 3                    | 180,000                 | 27                               | 2                            | 186,000                  | 4                                 |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

This will require 276 team-months of a manual demining team and for four team-months for a BAC team.

Requirement for road clearance;

Table 16.3.5: Road Clearance assets required for the Greater Upper Nile Region

|            | Road clearance/assessment tasks                           |                    |       |  |  |  |  |  |  |
|------------|---|--------------------|-------|--|--|--|--|--|--|
| State      | State # Suspect roads Area Manual tasks Reassessed Lengtl |                    |       |  |  |  |  |  |  |
| Jonglei    | 7   | 1,753,146 (292 Km) | 141km |  |  |  |  |  |  |
| Unity      | 2   | 819,903 (137 Km)   | 69km  |  |  |  |  |  |  |
| Upper Nile | 5   | 377,573 (63 Km)    | 63km  |  |  |  |  |  |  |
| Sub Total  | 14  | 2,950,622 (492 Km) | 273km |  |  |  |  |  |  |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

In Jonglei State, two roads with a significant area do not have a polyline and upon assessment, they will most likely be significantly cancelled from the database. Upon reassessment, 273km being cleared at 15.4km/month will require one team for 18 months.

#### **Survey Requirement**

There will be a requirement throughout the clearance phase for a single Survey team. This team will not only revisit tasks and aim to better define them but will also provide cover for Explosive Ordnance Disposal tasks that will arise for the foreseeable future.

# Overall Clearance requirement for Greater Upper Nile

Thus, the total clearance requirement needed to address the needs of the known contamination and suspected Greater Equatoria can be summarized as:

Table 16.3.6: Estimated team-month requirements by clearance type in the Greater Upper Nile region

| Team type                          | Overall requirement (#team-months) |  |  |  |  |  |
|------------------------------------|------------------------------------|--|--|--|--|--|
| Manual demining                    | 26                                 |  |  |  |  |  |
| Mechanical demining                | 20                                 |  |  |  |  |  |
| Manual BAC                         | 40                                 |  |  |  |  |  |
| Mechanical Cluster Clearance Teams | 0                                  |  |  |  |  |  |
| Road Team                          | 18                                 |  |  |  |  |  |
| Survey Team                        | 1 Team for five years              |  |  |  |  |  |

#### 16.4 Summary of required clearance capacity

The summary of the overall requirement can is as follows:

Table 16.4.1: Summary of area contamination by the region and type of clearance

| Region                    | Manual<br>Demining<br>(m²) | Mechanical<br>Demining<br>(m²) | Demining<br>Resurvey<br>(m²) | Manual<br>BAC (m²) | Mechanical<br>BAC (m²) | BAC<br>Resurvey<br>(m²) | Road<br>Clearance<br>(km) |
|---------------------------|----------------------------|--------------------------------|------------------------------|--------------------|------------------------|-------------------------|---------------------------|
| Greater<br>Equatoria      | 842,074                    | 2,790,709                      | 553,884                      | 6,804,149          | 1,922,620              | 541,690                 | 138                       |
| Greater<br>Upper Nile     | 167,525                    | 831,159                        | 1,819,272                    | 859,992            | 0                      | 186,000                 | 273                       |
| Greater Bahr<br>El Ghazal | 212,127                    | 56,466                         | 0                            | 739,128            | 93,000                 | 0                       | 23                        |
| Totals                    | 1,221,726                  | 3,678,334                      | 2,373,156                    | 8,403,269          | 2,015,620              | 727,690                 | 436                       |

Thus the overall clearance capacity needed to fully address all of the known contamination and to address that part of the currently suspected area which it is reasonable to be believed will require clearance is as follow:

Table 16.4.2: Required capacity: Not inclusive of sites requiring Resurvey

| Required ca              | apacity: Not inc      | lusive of sites rec   | quiring Resurvey          |                        |  |
|--------------------------|-----------------------|-----------------------|---------------------------|------------------------|--|
| Toom hime                | Greater<br>Equatoria  | Greater<br>Upper Nile | Greater Bahr<br>El Ghazal | Total requirement      |  |
| Team type                | Team-month<br>s       | Team-months           | Team-months               | Team-months            |  |
| Manual demining - AP     | 89                    | 14                    | 15                        | 118                    |  |
| Manual demining - AT     | 39                    | 11                    | 17                        | 67                     |  |
| Mechanical Teams - AP    | 42                    | 5                     | 2                         | 49                     |  |
| Mechanical Teams - AT    | 21                    | 15                    | 0                         | 36                     |  |
| Manual BAC Teams         | 311                   | 40                    | 34                        | 385                    |  |
| Mechanical Cluster Teams | 45                    | 0                     | 2                         | 47                     |  |
| Road Teams               | 9                     | 18                    | 2                         | 29                     |  |
| Survey Teams             | Two teams for 5 years | One Team for 5 years  | One team for 5 years      | 4 Teams for 5<br>years |  |

Table 16.4.2: Required capacity: Inclusive of sites requiring Resurvey

| Required capacity: Inclusive of sites requiring Resurvey |                       |                       |                           |                     |  |  |  |  |
|--|-----------------------|-----------------------|---------------------------|---------------------|--|--|--|--|
| Team type  | Greater<br>Equatoria  | Greater<br>Upper Nile | Greater Bahr<br>El Ghazal | Total requirement   |  |  |  |  |
| ,  | Team-months           | Team-months           | Team-months               | Team-months         |  |  |  |  |
| Manual demining - AP                                     | 152                   | 263                   | 15                        | 430                 |  |  |  |  |
| Manual demining - AT                                     | 40                    | 42                    | 17                        | 99                  |  |  |  |  |
| Mechanical teams - AP                                    | 42                    | 14                    | 2                         | 58                  |  |  |  |  |
| Mechanical Teams - AT                                    | 21                    | 14                    | 0                         | 36                  |  |  |  |  |
| Manual BAC Teams   | 322                   | 43                    | 34                        | 399                 |  |  |  |  |
| Mechanical Cluster<br>Teams                              | 45                    | 0                     | 2                         | 47                  |  |  |  |  |
| Road Teams   | 9                     | 18                    | 2                         | 29                  |  |  |  |  |
| Survey Teams   | Two teams for 5 years | One Team for 5 years  | One team for 5 years      | 4 Teams for 5 years |  |  |  |  |

For planning purposes, the work plan will utilize the data incorporating sites requiring resurvey.

# Clearance Assets and their average capacities

Table 16.4.3: Clearance assets and their average outputs in South Sudan

| Clearance Asset                | Dailly Outputs        | Work days per<br>month | Available months per year |  |
|--------------------------------|-----------------------|------------------------|---------------------------|--|
| Manual Mine -15 x deminers     | 300 sqm               | 22                     | 10                        |  |
| Mechanical mine - medium sized | 2000 sqm              | 22                     | 7                         |  |
| Manual BAC- 15 x Deminers      | 1000 sqm              | 22                     | 10                        |  |
| Mechanical BAC                 | 2000 sqm              | 22                     | 7                         |  |
| Roads                          | 4200 sqm/700 m linear | 22                     | 8                         |  |

For planning purposes, the work plan will utilize the data incorporating sites requiring resurvey.

This equates to the number of teams as shown in Table 16.4.4 in the next page.

Table 16.4.4: Number of clearance and survey teams required

|               |      | Required Team Type        |    |                |                              |        |                 |                   |        |  |  |
|---------------|------|---------------------------|----|----------------|------------------------------|--------|-----------------|-------------------|--------|--|--|
|               |      | Manual                    |    |                |                              | Mechan |                 |                   |        |  |  |
| Year<br>Numbe | Year | 15 Lane Mine<br>Clearance |    | Battle<br>Area | Mechanical<br>Mine Clearance |        | Assisted<br>BAC | Road<br>Clearance | Survey |  |  |
|               |      | AP                        | AT | Clearance      | AP                           | AT     | Clearance       |                   |        |  |  |
| r of<br>Teams | 2025 | 2                         | 0  | 14             | 4                            | 0      | 2               | 2                 | 4      |  |  |
| Requir<br>ed  | 2026 | 10                        | 4  | 8              | 3                            | 1      | 2               | 2                 | 4      |  |  |
|               | 2027 | 10                        | 2  | 8              | 0                            | 3      | 2               | 2                 | 2      |  |  |
|               | 2028 | 10                        | 2  | 5              | 0                            | 3      | 2               | 2                 | 2      |  |  |
|               | 2029 | 8                         | 2  | 5              | 0                            | 0      | 1               | 1                 | 2      |  |  |
|               | 2030 | 5                         | 0  | 5              | 0                            | 0      | 1               | 0                 | 2      |  |  |

# 17 Institutional, human resource and material capacity available to implement the work plan

# **Current Clearance and Survey Resources**

As of 31 December 2024, the following clearance assets are either deployed or in reserve working in South Sudan. It should be noted that this is a snapshot of the present situation, and that in the absences of multi-year funding this may change

- 21 Medium Multi-Task Teams (8-15 deminers/serachers per team):
  - 15 UNMISS Assess Budget funded teams
  - bilaterally funded 5 MAG, 1 DRC/DDG)
- 1 Small Multi-task teams (Survey/EOD teams only):
  - 1 bilaterally (1 DRC/DDG)
- 2 Mechanical Clearance and Ground Preparation Teams
  - 4 UNMISS Assess Budget funded teams
  - 3 Light Flails/Mechanical BAC teams: bilaterally funded

In order to achieve the plan, the following resources will be needed:

Table 17.1: Number of clearance and survey teams required

|                 |      | Required Team Type        |    |                |                              |        |                 |                   |        |  |  |  |
|-----------------|------|---------------------------|----|----------------|------------------------------|--------|-----------------|-------------------|--------|--|--|--|
|                 |      | Manual                    |    |                |                              | Mechan |                 |                   |        |  |  |  |
|                 | Year | 15 Lane Mine<br>Clearance |    | Battle<br>Area | Mechanical<br>Mine Clearance |        | Assisted<br>BAC | Road<br>Clearance | Survey |  |  |  |
|                 |      | AP                        | AT | Clearance      | AP                           | AT     | Clearance       |                   |        |  |  |  |
| Number of Teams | 2025 | 2                         | 0  | 14             | 4                            | 0      | 2               | 2                 | 4      |  |  |  |
| Required        | 2026 | 10                        | 4  | 8              | 3                            | 1      | 2               | 2                 | 4      |  |  |  |
|                 | 2027 | 10                        | 2  | 8              | 0                            | 3      | 2               | 2                 | 2      |  |  |  |
|                 | 2028 | 10                        | 2  | 5              | 0                            | 3      | 2               | 2                 | 2      |  |  |  |
|                 | 2029 | 8                         | 0  | 5              | 0                            | 0      | 1               | 1                 | 2      |  |  |  |
|                 | 2030 | 5                         | 0  | 5              | 0                            | 0      | 1               | 0                 | 2      |  |  |  |

Table 17.2: Funding status of required assets

|      |              | Required Assets vs Funded Assets as at 31 December 2024 |                  |                |                              |         |                 |                   |        |  |  |
|------|--------------|---|------------------|----------------|------------------------------|---------|-----------------|-------------------|--------|--|--|
| Requ | Required     | Manual  |                  |                | ı                            | Mechani | cal             |                   |        |  |  |
| Year | vs<br>Funded |   | ne Mine<br>rance | Battle<br>Area | Mechanical<br>Mine Clearance |         | Assisted<br>BAC | Road<br>Clearance | Survey |  |  |
|      |              | AP  | AT               | Clearance      | AP                           | AT      | Clearance       |                   |        |  |  |
| 2025 | Required     | 2   | 0                | 14             | 4                            | 0       | 2               | 2                 | 4      |  |  |
| 2025 | Funded       | 10  | 0                | 7              | 4                            | 0       | 2               | 2                 | 2      |  |  |
| 2026 | Required     | 10  | 4                | 8              | 3                            | 1       | 2               | 2                 | 4      |  |  |
|      | Funded       | 10  | 4                | 7              | 3                            | 1       | 2               | 2                 | 2      |  |  |
| 2027 | Required     | 10  | 2                | 8              | 0                            | 3       | 2               | 2                 | 4      |  |  |
| 2021 | Funded       | 0   | 0                | 0              | 0                            | 0       | 0               | 0                 | 0      |  |  |
| 2028 | Required     | 10  | 2                | 5              | 0                            | 3       | 2               | 2                 | 4      |  |  |
| 2028 | Funded       | 0   | 0                | 0              | 0                            | 0       | 0               | 0                 | 0      |  |  |
| 0000 | Required     | 8   | 2                | 5              | 0                            | 0       | 1               | 1                 | 2      |  |  |
| 2029 | Funded       | 0   | 0                | 0              | 0                            | 0       | 0               | 0                 | 0      |  |  |
| 2030 | Required     | 5   | 0                | 5              | 0                            | 0       | 1               | 0                 | 2      |  |  |
| 2030 | Funded       | 0   | 0                | 0              | 0                            | 0       | 0               | 0                 | 0      |  |  |

From the table above, it is very clear that from the outset there is already a deficiency in the number of assets required to complete the job in a timely manner. Without a significant increase in financial support, South Sudan will struggle to meet its obligation to the APBMC as per the requested deadline of five years

#### **Development of the National Mine Action Authority**

Concurrent to these clearance efforts South Sudan will seek support to empower the National Mine Action Authority to develop a regionally based coordination and response mechanism that can address all hazardous item reports, and which can carry out surveys of newly identified hazardous areas including the AP mines contamination.

South Sudan will seek funding to enable an independent entity, to implement a project to train, equip and mentor the NMAA and to support its nascent years in taking the lead in coordinating the response to new reports of hazardous items. It is hoped that this project will be undertaken by one of the international non-governmental organisations that has experience of implementing a similar capacity-building project.

#### Number of Work Days per year

Previously, the practice in South Sudan was to demine from November through until June, which was when the impact of the seasonal rains sets in. July was spent in servicing equipment and compiling end of season reports, August through to mid-September was when the demining personnel took their annual block leave, and from late September the retraining and accreditation process commenced to enable a resumption of demining in September. Thus, demining activities were only conducted during eight months of the year. Ordinarily a deminer was working for around 220 days through this period, but the requirement to travel to work sites (including relocation from one minefield to another) meant that the planning figure used for the clearance calculations was 22 days per month. However, the working days were amended so that manual teams continued operating throughout the calendar year. During the wet periods, the teams would be deployed to areas where accessibility to the clearance sites was still attenable. Mechanical clearance teams continued with the tradition of standing down during the months of July to November when it is wettest in South Sudan.

#### **Mechanical Clearance Requirement**

The overall clearance requirement has been estimated at 3.67km<sup>2</sup> of minefields and 2.02km<sup>2</sup> of cluster strike and battlefield areas. This plan envisages four mechanical teams in the first two years and then three mechanical teams after that to address the minefields over four years.

In South Sudan the average output for a medium tiller, such as the MineWolf 330, is 2,000m<sup>2</sup> per day, while heavier tillers such as the MineWolf 370 can deliver a higher output, getting them to tasks is increasingly difficult, and so the planning figure used for future clearance is 2,000m<sup>2</sup> per day.

Machines are expected to operate for 154 days or seven months per year. Thus, a Medium Tiller, operating with appropriate manual demining support can be expected to clear 308,000m² per year. As such, the calculations used within this request are based on the deployment of medium tillers, in the full realisation that the use of heavier machines should only increase productivity and thus accelerate clearance. In order to clear all of the known mined areas that are suited to mechanical clearance and to provide a reserve for any additional tasks that materialise; four mechanical clearance teams (each with one medium tiller) will be needed for four years.

In South Sudan the following assets are already in the country;

Table 17.3: Status of Mechanical mine clearance assets in South Sudan by ownership and funding

availability

| Asset          | Qty | Owner | Operational | Remarks                |
|----------------|-----|-------|-------------|------------------------|
| Minewolf MW370 | 2   | NMAA  | No          | Lack of funding        |
| Minewolf MW370 | 2   | NPA   | No          | Lack of funding        |
| Minewolf MW240 | 2   | UNMAS | Yes         | Funded until June 2026 |
| Minewolf MW330 | 1   | UNMAS | Yes         | Funded until June 2026 |
| Minewolf MW240 | 1   | TDI   | No          | Lack of funding        |
| Minewold MW240 | 1   | DCA   | No          | Lack of funding        |
| GCS100         | 1   | UNMAS | Yes         | Funded until June 2026 |

If all the assets currently available in the country were operational, then the potential annual clearance would amount to the following

Table 17.4: Potential output per mechanical asset

| Asset            | Qty | Potential Annual Output (sqm) |  |  |  |  |
|------------------|-----|-------------------------------|--|--|--|--|
| Minewolf MW370   | 4   | 2,156,000                     |  |  |  |  |
| Minewolf MW240   | 4   | 1,232,000                     |  |  |  |  |
| Minewolf MW330 1 |     | 308,000                       |  |  |  |  |
| TOTAL            |     | 3,696,000                     |  |  |  |  |

Potentially, South Sudan could clear all minefields within two years if all these machines were put to us



Figure 17.1: Two NMAA owned Minewolf MW370 mechanical clearance machines. Photo by Thanju Maina, UNMAS South Sudan 2025.

#### **Manual Clearance Requirement:**

As has already been shown, this plan assumes that there will be a requirement for around 11.2 square kilometres of land to be searched for landmines. The 191 remaining tasks may be disaggregated into those tasks that can be cleared with mechanical assistance (68 tasks) and those that can only be cleared manually (78 tasks) and 45 tasks to be resurveyed. This is normally on account of the difficulty of a machine operating in the area (steep slopes) or because of access difficulties for the machines.

There is a requirement to clear 3.59km² of AP mined ground using only manual methodology. Working without mechanical clearance, the daily average productivity for a South Sudanese deminer is 20m² and can be expected to demine for 220 days a year. Thus, in order to clear the projected requirement there is a requirement for up to 55 demining teams (15 lanes each) which will have the capacity to clear more than 3.63km² of mined ground over five years. Extra capacity is to cater for any contingencies.

#### **Cluster Munitions Clearance Requirement**

In addition, there will be a requirement to clear 105 cluster strikes and 37 battle areas extending over 10.4 km². 14 Cluster Munitions/BAC clearance teams will deploy for the initial year and then reduce to 8 for the next two years and terminate with 5 teams for the last three years have the combined capacity to clear more than 1km² each per year as well as two mechanical clearance assisted teams for the initial four years and one mechanical assisted that will each have the capacity to clear an additional 308,000m² per year. So again, there is more than adequate capacity to address the known hazards as well as some redundancy should additional contamination be identified.

#### **Road Clearance Requirement**

Finally there is still a significant problem with mined roads, the plan puts forward sufficient capacity to survey and clear 438km of road for four years, which should not only clear all remaining confirmed and suspected mined roads but also generate a surplus capacity to assist with other clearance requirements should the need arise.

#### **Explosive Ordnance Risk Education Requirement**

EORE teams in South Sudan for the international implementing partners are always embedded with the clearance teams. On the other hand, national EORE teams conduct standalone independent of the clearance teams. This will also form the basis for the EORE/CL requirement for the period of the extension.

The EORE workplan for South Sudan has been developed in alignment with Article 5 commitments, taking into account the country's operational environment and seasonal constraints. In South Sudan, EORE teams are usually embedded with the clearance teams. And for this consideration, the work plan adopts the same numbers of EORE teams as the clearance teams barring the NMAA and National NGO teams. Each EORE team is structured to engage a maximum of 25 beneficiaries per session, with the capacity to conduct two sessions per day during the dry season (October to June) and one session per day during the wet season (July to September). Manual clearance teams and in extension their EORE teams are projected to operate effectively for 10 months, while mechanical clearance teams and their EORE teams standing down during the wet season will conduct operations for approximately seven months per year. The remaining months are typically lost to insecurity, rain-related access constraints, and transit between deployments to operational sites. This structured approach allows for predictable coverage of high-risk communities, optimizes seasonal operational windows and ensures that RE activities remain closely integrated with survey and

clearance operations to maximize community safety. Table 17.5 projects the number of beneficiaries during the implementation period.

Table 17.5: Projected number of EORE beneficiaries reached during the implementation period.

|                               |                 | embedded with   |         |        |        | anical |        | efield  |         |        | NIMAA   | Total     |
|-------------------------------|-----------------|-----------------|---------|--------|--------|--------|--------|---------|---------|--------|---------|-----------|
| the cle                       | arance 1        | teams           | AP      | AT     | AP     | AT     | Mech   | Manual  | Survey  | Road   | NMAA    | Total     |
| # of                          | f people        | per session     | 25      | 25     | 25     | 25     | 25     | 25      | 25      | 25     | 25      |           |
| Daily Dry seasor sessions per |                 | Dry season      | 2       | 2      | 2      | 2      | 2      | 2       | 2       | 2      | 2       |           |
|                               | ons per<br>ason | Wet season      | 1       | 1      | 0      | 0      | 1      | 1       | 1       | 1      | 1       |           |
| ,                             | Workday         | ys/month        | 22      | 22     | 22     | 22     | 22     | 22      | 22      | 22     | 22      |           |
| 1                             | nual            | Dry season      | 7       | 7      | 7      | 7      | 7      | 7       | 7       | 7      | 7       |           |
| operational<br>Month          |                 | Wet season      | 3       | 3      | 0      | 0      | 3      | 3       | 3       | 3      | 3       |           |
|                               | 2025            | # of teams      | 2       | 0      | 4      | 0      | 2      | 14      | 4       | 2      | 2       |           |
|                               | 2025            | Benefiriciaries | 18,700  | 0      | 30,800 | 0      | 18,700 | 130,900 | 37,400  | 18,700 | 18,700  | 273,900   |
|                               | 2026            | # of teams      | 10      | 4      | 3      | 1      | 2      | 8       | 4       | 2      | 2       |           |
|                               |                 | Benefiriciaries | 93,500  | 37,400 | 23,100 | 7,700  | 18,700 | 74,800  | 37,400  | 18,700 | 18,700  | 330,000   |
|                               | 2027            | # of teams      | 10      | 2      | 0      | 3      | 2      | 8       | 2       | 2      | 2       |           |
| Years                         | 2021            | Benefiriciaries | 93,500  | 18,700 | 0      | 23,100 | 18,700 | 74,800  | 18,700  | 18,700 | 18,700  | 284,900   |
| louis                         | 2028            | # of teams      | 10      | 2      | 0      | 3      | 2      | 5       | 2       | 2      | 2       |           |
|                               | 2020            | Benefiriciaries | 93,500  | 18,700 | 0      | 23,100 | 18,700 | 46,750  | 18700   | 18,700 | 18,700  | 256,850   |
|                               | 2029            | # of teams      | 8       | 2      | 0      | 0      | 1      | 5       | 2       | 1      | 2       |           |
|                               | 2023            | Benefiriciaries | 74,800  | 18,700 | 0      | 0      | 9,350  | 46,750  | 18,700  | 9,350  | 18,700  | 196,350   |
|                               | 2030            | # of teams      | 5       | 0      | 0      | 0      | 1      | 5       | 2       | 0      | 2       |           |
|                               | 2000            | Benefiriciaries | 46,750  | 0      | 0      | 0      | 9,350  | 46,750  | 18,700  | 0      | 18,700  | 140,250   |
| Total                         |                 |                 | 420,750 | 93,500 | 53,900 | 53,900 | 93,500 | 420,750 | 149,600 | 84,150 | 112,200 | 1,482,250 |

The table below the costs for the EORE capacity for the period of request;

Table 17.6: Estimated cost of EORE capacity required during the extension period

| EORE capacity                       | 2024                         | 2025       | 2026       | 2027       | 2028       | 2029    | 2030    |       |        |
|-------------------------------------|------------------------------|------------|------------|------------|------------|---------|---------|-------|--------|
| embedded with<br>Clearance<br>Teams | Cost<br>/team<br>(\$million) | #<br>Teams | #<br>Teams | #<br>Teams | #<br>Teams | # Teams | # Teams | TOTAL | Budget |
| MMC Teams                           | 0.15                         | 2          | 14         | 12         | 12         | 10      | 5       | 55    | 8.25   |
| Mech teams                          | 0.15                         | 4          | 4          | 3          | 3          | 0       | 0       | 14    | 2.1    |
| BAC Manual                          | 0.15                         | 14         | 8          | 8          | 5          | 5       | 5       | 45    | 6.75   |
| Road Teams                          | 0.15                         | 2          | 2          | 2          | 2          | 0       | 0       | 8     | 1.2    |
| NMAA                                | 0.35                         | 0          | 2          | 2          | 2          | 2       | 2       | 10    | 3.5    |
| NNGO                                | 0.35                         | 15         | 15         | 10         | 10         | 5       | 5       | 60    | 21     |
| Total /year<br>(million)            |                              | 18.3       | 19.9       | 14.5       | 14         | 8       | 7.2     |       | 42.8   |

# 18. Detailed Work Plan: Qualitative information Methodology to be used

#### 18.1 Non-Technical Survey Teams

South Sudan will continue to rely on the use of manual clearance techniques and wherever possible to mechanically assist the manual teams. Survey teams have been deployed extensively in recent years and have achieved significant results in reducing the overall estimate of contamination down to a manageable level. South Sudan plans to continue to deploy non-technical survey teams, particularly to those suspect areas that are significantly larger than the proven average task size. At the time of writing there remain 58 hazard areas on the contamination database that require to be resurveyed accounting for a combined area of 3,662,486m² (3.66 km²)

#### 18.2 Mine clearance

As has already been stated, mine clearance will be conducted by the use of manual and mechanical methods. The use of both methodologies, which have proved to be complementary, is well established in South Sudan. South Sudan has both minimum metal anti-personnel and anti-vehicle mines. To assist the detection of such hazards South Sudan has increased its use of dual sensor (ground penetrating radar [GPR] and metal detector combination) detectors. The use of GPR detectors is at the heart of South Sudan's plans for road clearance.

#### 18.3 Cluster Munition and Battle Area Clearance

South Sudan has developed a strong methodology for the clearance of cluster munitions using large loop detectors. These allow the operator to discriminate between potential cluster munition sized targets and general clutter and thus improve clearance rates. Operators in South Sudan have further enhanced the productivity of cluster munitions clearance teams through the use of mechanical vegetation cutting equipment.



Figure 18.1: A cluster munition clearance team in South Sudan. Photo UNMAS South Sudan.

#### 18.4 Road Clearance

Anti-vehicle mines with minimal metal content were used during the conflict in South Sudan and continue to present a challenge to clearance teams. South Sudan has developed a specialist clearance capacity that makes full use of dual sensor detectors to clear stretches of road at an efficient rate. All clearance is then verified by Mine Detection Dog teams to confirm the quality of the clearance. This combination has been shown to achieve clearance rates of 700m of linear length of road per day per road clearance team (4,200m²).

#### 18.5 Gender Equality and Diversity

In addition to the operational measures described above, South Sudan places strong emphasis on ensuring that mine action is inclusive and responsive to the diverse needs of affected communities. South Sudan formally adopted its National Mine Action Gender Equality and Diversity (GED) Policy on 1 August 2025, with the full document publicly available through the GICHD<sup>11</sup>. This policy provides a framework to strengthen the mainstreaming of gender, diversity, and inclusion within all mine action activities and aligns closely with the National Mine Action Strategy 2024–2028. Prior to the policy's launch, the NMAA and its partners had already initiated key measures such as establishing forums and workshops for female deminers, creating a Women in Mine Action Network (WiMAN) and promoting qualified female personnel into leadership positions within technical clearance teams. Current practices ensure that team composition remains gender-balanced and that EORE beneficiaries are fully disaggregated by gender and age, allowing the South Sudan mine action implementing partners to address the diverse needs of affected communities. Furthermore, EORE sessions are scheduled to accommodate women's domestic responsibilities, enabling inclusive participation. These early initiatives now serve as a foundation for the GED Policy, which will formalize, expand and guide future actions ensuring that mine action under the Article 5 extension period is implemented in a fully inclusive and participatory manner, consistent with international best practices and donor expectations.

<sup>&</sup>lt;sup>11</sup> The Republic of South Sudan national mine action gender equality and diversity policy <a href="https://www.gichd.org/fileadmin/user\_upload/GICHD\_South\_Sudan\_national\_mine\_action\_gender\_equality\_and\_diversity\_policy.pdf">https://www.gichd.org/fileadmin/user\_upload/GICHD\_South\_Sudan\_national\_mine\_action\_gender\_equality\_and\_diversity\_policy.pdf</a>

# 19 Milestones for completion

The suggested capacity will be able to deliver the following outputs:

#### Manual mine clearance

There is a requirement to clear and resurvey 104 tasks that are estimated to contaminate 3,594,882m<sup>2</sup>. 15 Lane demining teams are expected to clear 300m<sup>2</sup> per team per day, which equates to 66,000m<sup>2</sup> per team per year.

The total clearance requirement includes those totals that have already been identified as well as an additional safety factor to account for newly identified tasks and the impacts of other unforeseen circumstances. The table below indicates the contamination at the start of each year along with the expected clearance to be achieved in that year. It also projects the number of minefields that will be cleared each year and the number that will remain at the end.

Table 19.1: Projected manual clearance capacity for AP minefields and output over the period 2025 to 2030

|      | Projected Manual AP Mine Clearance |            |                 |                        |                                 |  |  |  |  |  |  |  |
|------|------------------------------------|------------|-----------------|------------------------|---------------------------------|--|--|--|--|--|--|--|
|      | Сара                               | acity      |                 | Potential Output       |                                 |  |  |  |  |  |  |  |
| Year | Area (m2)                          | # of Teams | Area<br>Cleared | # of tasks<br>cleared* | Remaining Area at year end (m2) |  |  |  |  |  |  |  |
| 2025 | 2,839,026                          | 2          | 132,000         | 4                      | 2,707,026                       |  |  |  |  |  |  |  |
| 2026 | 2,707,026                          | 10         | 660,000         | 19                     | 2,047,026                       |  |  |  |  |  |  |  |
| 2027 | 2,047,026                          | 10         | 660,000         | 19                     | 1,387,026                       |  |  |  |  |  |  |  |
| 2028 | 1,387,026                          | 10         | 660,000         | 19                     | 727,026                         |  |  |  |  |  |  |  |
| 2029 | 727,026                            | 8          | 528,000         | 15                     | 199,026                         |  |  |  |  |  |  |  |
| 2030 | 199,026                            | 5          | 330,000         | 10                     | 0                               |  |  |  |  |  |  |  |

This projection shows that there is a surplus capacity to address any as yet unknown tasks.

Table 19.2: Projected manual mine clearance capacity for AT minefields and output over the period 2025 to 2030

|      |           | Projected Ma | anual AT Mine   | Clearance              |                                 |  |  |  |  |
|------|-----------|--------------|-----------------|------------------------|---------------------------------|--|--|--|--|
|      | Сар       | acity        |                 | Potential Output       |                                 |  |  |  |  |
| Year | Area (m2) | # of Teams   | Area<br>Cleared | # of tasks<br>cleared* | Remaining Area at year end (m2) |  |  |  |  |
| 2025 | 743,893   | 0            | 0               | 0                      | 743,893                         |  |  |  |  |
| 2026 | 743,893   | 4            | 264,000         | 8                      | 479,893                         |  |  |  |  |
| 2027 | 479,893   | 2            | 132,000         | 4                      | 347,893                         |  |  |  |  |
| 2028 | 347,893   | 2            | 132,000         | 4                      | 215,893                         |  |  |  |  |
| 2029 | 215,893   | 2            | 132,000         | 4                      | 83,893                          |  |  |  |  |
| 2030 | 83,893*   | 0            | 0               | 0                      | 0                               |  |  |  |  |

<sup>\*</sup> The remaining figure of 83,893 sqm will be cleared using manual teams for AP minefield clearance.

#### Mechanical clearance

There is a requirement to clear 61 tasks mechanically that extend over an area of 3,678,334m<sup>2</sup>. Mechanical teams for both mine clearance and cluster munition clearance are expected to clear 2,000m<sup>2</sup> per team per day. This equates to 308,000m<sup>2</sup> per team per year.

Once again a margin of safety has been added to account for any new minefields found.

Table 19.3: Projected mechanical mine clearance capacity for AP minefields and output over the period 2025 to 2030

|      | Projec           | ted Mechani | cal AP Clearance |                |  |  |  |
|------|------------------|-------------|------------------|----------------|--|--|--|
| Year | Capacit          | у           | Potential Output |                |  |  |  |
| Teal | Area (m²) # Team |             | Area Cleared     | Area Remaining |  |  |  |
| 2025 | 2,104,535        | 4           | 1,232,000        | 872,535        |  |  |  |
| 2026 | 872,535          | 3           | 924,000          | -51,465        |  |  |  |
| 2027 | 0                | 0           | 0                | 0              |  |  |  |
| 2028 | 0                | 0           | 0                | 0              |  |  |  |
| 2029 | 0                | 0           | 0                | 0              |  |  |  |
| 2030 | 0                | 0           | 0                | 0              |  |  |  |

Table 19.4: Projected mechanical mine clearance capacity for AT minefields and output over the period 2025 to 2030

|      | Projec    | ted Mechani | cal AT Clearance |                |  |  |
|------|-----------|-------------|------------------|----------------|--|--|
| Year | Capacit   | у           | Potential Output |                |  |  |
| Tear | Area (m²) | # Teams     | Area Cleared     | Area Remaining |  |  |
| 2025 | 1,573,799 | 0           | 0                | 1,573,799      |  |  |
| 2026 | 1,573,799 | 1           | 308,000          | 1,265,799      |  |  |
| 2027 | 1,265,799 | 3           | 924,000          | 341,799        |  |  |
| 2028 | 341,799   | 3           | 924,000          | 0              |  |  |
| 2029 | 0         | 0           | 0                | 0              |  |  |
| 2030 | 0         | 0           | 0                | 0              |  |  |

This projection shows that there is a surplus capacity to address any as yet unknown tasks.

#### Cluster munition and battle area clearance

The Clearance requirement for cluster munitions clearance tasks and battlefield area clearance tasks is estimated to be a total 142 tasks contaminating 11,146,579m². Cluster munitions clearance teams using manual clearance drills are expected to clear 1,000m² per team per day, while mechanically supported teams are expected to clear 2,000m² per day. This equates to 176,000m² and 308,000m² per team per year. Once again, a contingency to clear an additional 10% of the original requirement has been included as a margin of safety.

Table 19.3: Projected cluster munition and battle area clearance capacity and output over the period 2025 to 2030

|      | C                        | apacity                      | Remaining                                | Remaining problem         |  |  |
|------|--------------------------|------------------------------|--|---------------------------|--|--|
| Year | # Teams                  | Area Cleared                 | Remaining<br>Area at end<br>of year (m²) | Number of tasks remaining |  |  |
| 2025 | 14 Manual + 2 Mechanical | 3,080,000 man + 616,000 mech | 7,450,579                                | 81                        |  |  |
| 2026 | 8 Manual + 2 Mechanical  | 1,760,000 man + 616,000 mech | 5,074,579                                | 55                        |  |  |
| 2027 | 8 Manual + 2 Mechanical  | 1,760,000 man + 616,000 mech | 3,138,579                                | 33                        |  |  |
| 2028 | 5 Manual + 2 Mechanical  | 1,100,000 man + 616,000 mech | 1,422,579                                | 18                        |  |  |
| 2029 | 5 Manual + 1 Mechanical  | 1,100,000 man + 308,000 mech | 14,579                                   | 1                         |  |  |
| 2030 | 5 Manual + 1 Mechanical  | 1,100,000 man + 308,000 mech | -  | 0                         |  |  |

#### Prioritisation of areas

South Sudan is now into the end-game of its clearance efforts. Every one of the remaining hazards needs to be cleared and given the enormity of the work that has already been undertaken, aside from those tasks where specific humanitarian interventions are planned, few of the remaining tasks can be prioritized for immediate clearance. Thus, the intention is to be pragmatic in the sequencing of tasks for clearance and to deploy the clearance teams through a selection process that aims to balance; security, logistical requirements, and concentration of effort. South Sudan believes that this combination will need the most efficient clearance plan that allows for optimal supervision and monitoring of clearance efforts.

#### 20. Financial / Institutional Capacities

#### **Cost of Clearance**

In order to determine the cost of clearance throughout the duration of this extension request, estimates have been made based on the current costs with a small increase added to account for inflation. This has led to the following assumptions that have been used:

- The cost of one 15 person(s) demining team with all overheads will be USD 1.14 million per year.
- The cost of one mechanical demining team with all overheads will be USD 2.2 million per year
- The cost of one BAC/Cluster munitions team month with all overheads USD 650,000 per year
- The cost of a mechanically assisted BAC/Cluster munitions team will be USD 1.2 million per year
- The cost of a specialist road clearance tea will be USD 1.2 million per year

Using these values and the capacity requirements outlined in section 14, leads to the following deduction:

Table 20.1: Annual costs requirements by clearance methods

|                                  | 2024                         | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          |        |
|----------------------------------|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| Clearance capacity               | Cost<br>/team<br>(\$million) | # of<br>Teams | Budget |
| AP Manual teams cost per year    | 1.14                         | 2             | 10            | 10            | 10            | 8             | 5             | 51.3   |
| AT Manual teams<br>cost per year | 1.14                         | 0             | 4             | 2             | 2             | 2             | 0             | 11.4   |
| AP Mech teams /<br>Month         | 2.2                          | 4             | 3             | 0             | 0             | 0             | 0             | 15.4   |
| AT Mech teams /<br>Month         | 2.2                          | 0             | 1             | 3             | 3             | 0             | 0             | 15.4   |
| Mech BAC                         | 1.2                          | 2             | 2             | 2             | 2             | 1             | 1             | 12     |
| BAC Manual                       | 0.65                         | 14            | 8             | 8             | 5             | 5             | 5             | 29.25  |
| Survey                           | 0.5                          | 4             | 4             | 2             | 2             | 2             | 2             | 8      |
| Road                             | 1.2                          | 2             | 2             | 2             | 2             | 1             | 0             | 10.8   |
| NMAA                             | 1                            | 2             | 2             | 2             | 2             | 2             | 2             | 12     |
| QA                               | 1                            | 3             | 3             | 3             | 3             | 3             | 3             | 18     |
| Total /year (million)            | -                            | 31.98         | 41.76         | 36.28         | 34.33         | 23.05         | 16.05         | 183.55 |

The costs on this table are inclusive of EORE/CL teams.

This combined capacity is projected to deliver the following outputs over the five years of this plan:

- Manual clearance 2,970,000m<sup>2</sup> of AP minefields and 660,000 sqm of AT minefields
- Mechanical clearance 2,156,000m<sup>2</sup> of AP minefields and 2,156,000 sqm of AT minefields
- Cluster munitions/BAC 9,460,000m<sup>2</sup> of battle areas and cluster strikes by manual search techniques
- Cluster munitions/BAC 3,080,000m<sup>2</sup> of battle areas and cluster strikes by mechanically assisted search techniques
- 1,109km of road cleared

Thus, the projected amount is required to address all known minefields, cluster strikes and battle areas within South Sudan and leaves some capacity to address new contamination.

### What are the expected sources of funding, (national and international)?

Raising international support for South Sudan has become increasingly challenging. There are multiple competing demands on humanitarian funding and with near perpetual uncertainty surrounding the peace process, all independent operators have struggled to develop the critical mass needed to make clearance efficient. This situation is further exacerbated by the logistical challenges faced in South Sudan that impacts upon the costs of clearance. Finally, the Government of South Sudan has limited its support to mine action to assistance to the running costs of the NMAA but has made no resources available for clearance activities or risk education. Moving forward it is critical to the long term success of this plan that the National Mine Action Authority are sufficiently and well supported to establish themselves as the long term response and management capacity to address the residual contamination that will inevitably remain beyond the completion of the proactive search of all known hazardous areas.

The greatest risk to this funding plan is undoubtedly a return to violence. The international community are already supporting the country with more than \$2billion dollars of assistance each year and are struggling to cope with the needs of six million people displaced. Widespread flooding that commenced in 2019 resulted in the loss of thousands of hectares of pastoral grazing lands that in turn has accentuated the ongoing inter-communal violence that primarily revolves around grazing rights and cattle migration. Thankfully, the political violence, that has fluctuated for the last six years from underlying tensions to outright war, has been stopped as all parties have supported the 2018 revitilized peace agreement. Nevertheless, the needs of South Sudan are immense and funding for mine action is often relegated down the list of donor priorities.

Despite these challenges significant resources do flow into South Sudan, and it is clear that if the current levels of support are maintained, or preferably increased to allow for structural revisions, then this plan is very achievable.

#### 21. Other considerations

Since its creation, South Sudan has seldom been at peace, but at the time of writing the politically motivated fighting has abated, but nevertheless inter-communal violence continues and is prohibiting the clearance of known hazards. South Sudan's APMBC extension request is conditional upon the establishment and maintenance of sustained peace. However, as the clearance of the country moves towards completion the need to have peace and stability in Equatoria will become ever more critical. Currently those conditions do not exist, but efforts to establish a lasting peace continue. Delivering that peace will be critical to the success of this plan.

#### 22. Annexes

- A. Summary of outstanding clearance requirements and approach by regions
- B. NMAA Generic Concept Note
- C. Mines Advisory Group (MAG) Workplan in Support of Article 5 Extension Request

# Annex A: Summary of outstanding clearance requirements and approach by regions

# Summary of the outstanding clearance requirement and approach for the Greater Upper Nile region

Table A.1: Summary of minefields for manual clearance in the Greater Equatoria region

| Region | State                | County   | Payam    | Boma       | Hazard ID   | Area Size | Hazard<br>Type | Date Recorded | Methodology | CHA/SHA |
|--------|----------------------|----------|----------|------------|-------------|-----------|----------------|---------------|-------------|---------|
| GEQ    | Central Equatoria    | Juba     | Lobonok  | Kelang     | DCA-269-16  | 7054      | Mined Road     | 02/01/2017    | Manual      | СНА     |
| GEQ    | Central Equatoria    | Lainya   | Lainya   | Lokurbang  | G4S-034B-24 | 3284      | Mined Road     |               | Manual      | СНА     |
| GEQ    | Central Equatoria    | Juba     | Lirya    | Ngangala   | TDI-086C-21 | 10274     | Mined Road     | 2-Jun-22      | Manual      | СНА     |
| GEQ    | Eastern Equatoria    | Lafon    | Burgilo  | Lafon      | TDI-350F-19 | 543905    | Mined Road     | 19/04/2021    | Manual      | SHA     |
| GEQ    | Western<br>Equatoria | Maridi   | Landili  | Naam       | DA-SS-176   | 1250      | Mined Road     | 25/02/2004    | Manual      | SHA     |
| GEQ    | Western<br>Equatoria | Maridi   | Landili  | Naam       | DA-SS-175   | 1250      | Mined Road     | 25/02/2004    | Manual      | SHA     |
| GEQ    | Central Equatoria    | Terekeka | Tindilo  | Tindilo    | G4S-010B-24 | 88362     | Mined Road     |               | Manual      | SHA     |
| GEQ    | Eastern Equatoria    | Magwi    | Magwi    | Ayii       | MAG-003-20  | 1670      | AP Mines       | 09/12/2020    | Manual      | СНА     |
| GEQ    | Central Equatoria    | Juba     | Mangala  | Billinyang | SLG-018D-23 | 33245     | AT Mines       | 5-Jan-25      | Manual      | СНА     |
| GEQ    | Central Equatoria    | Juba     | Mangala  | Billinyang | G4S-038-24  | 20367     | AP Mines       |               | Manual      | СНА     |
| GEQ    | Eastern Equatoria    | Torit    | Hiyala   | Bolore     | TDI-027-22  | 56847     | AP Mines       | 24/06/2022    | Manual      | СНА     |
| GEQ    | Eastern Equatoria    | Torit    | hiyala   | Bolore     | TDI-026B-22 | 4658      | AT Mines       | 30-Jan-23     | Manual      | СНА     |
| GEQ    | Central Equatoria    | Yei      | Yei Town | Gimoni     | G4S-020B-22 | 10858     | AP Mines       |               | Manual      | СНА     |
| GEQ    | Central Equatoria    | Juba     | Rejaf    | Gorom      | SLG-009B-24 | 998       | AT Mines       |               | Manual      | СНА     |
| GEQ    | Central Equatoria    | Yei      | Mugwo    | Jombu      | NPA-008-12  | 2542      | AP Mines       | 11/12/2012    | Manual      | СНА     |
| GEQ    | Central Equatoria    | Juba     | Lobonok  | Karpeto    | TDI-061-13  | 32554     | AP Mines       | 19/02/2013    | Manual      | СНА     |
| GEQ    | Central Equatoria    | Juba     | Rejaf    | Kit        | SLG-033B-22 | 18144     | AP Mines       | 5-Dec-22      | Manual      | СНА     |

| 1                 |   | 1   | i  |   |   |  | 1   | 1  |   |
|-------------------|---|---|--|---|---|--|---|--|---|
| Central Equatoria | Terekeka  | Rijong  | Kowori   | DA-SS-6130  | 400   | AP Mines   | 17/03/2012  | Manual   | CHA   |
| Central Equatoria | Juba  | Ganji   | Kuli Papa  | G4S-076-16  | 106919  | AT Mines   | 15/01/2016  | Manual   | СНА   |
| Central Equatoria | Juba  | Ganji   | Kuli Papa  | TDI-009-20  | 463   | AT Mines   | 07/02/2019  | Manual   | СНА   |
| Central Equatoria | Lainya  | Kupera  | Kupera   | DA-SS-4382  | 10350   | AP Mines   | 26/01/2009  | Manual   | СНА   |
| Central Equatoria | Lainya  | Lainya  | Lainya   | G4S-050-23  | 6192  | AP Mines   |   | Manual   | CHA   |
| Central Equatoria | Juba  | Lirya   | Langabu  | G4S-177-13  | 9604  | AT Mines   | 15/12/2013  | Manual   | СНА   |
| Central Equatoria | Lainya  | Kenyi   | Limbe  | TDI-035-13  | 4908  | AP Mines   | 26/04/2014  | Manual   | CHA   |
| Central Equatoria | Lainya  | Kenyi   | Limbe  | G4S-014-23  | 21147   | AT Mines   | 23-Feb-23   | Manual   | CHA   |
| Central Equatoria | Lainya  | Kenyi   | Limbe  | G4S-016-22  | 7400  | AT Mines   | 20-Jul-22   | Manual   | CHA   |
| Central Equatoria | Yei   | Yei Town  | Logobero   | G4S-011C-22   | 11942   | AP Mines   |   | Manual   | CHA   |
| Eastern Equatoria | Torit   | Bur   | Loudo  | MAG-213C-16   | 0   | AP Mines   |   | Manual   | CHA   |
| Eastern Equatoria | Magwi   | Pageri  | Lwala  | SLG-019-22  | 1600  | AT Mines   | 22/04/2022  | Manual   | CHA   |
| Central Equatoria | Terekeka  | Nyori   | Lwokil   | SLG-019-24  | 2500  | AT Mines   |   | Manual   | CHA   |
| Eastern Equatoria | Budi  | Komori  | Monita   | MAG-303-15  | 20800   | AP Mines   | 02/01/2016  | Manual   | CHA   |
| Central Equatoria | Morobo  | Gulumbi   | Mundari  | G4S-013-22  | 10000   | AT Mines   | 27/06/2022  | Manual   | CHA   |
| Eastern Equatoria | Kapoeta East  | Katodori  | Nanaknak   | MCH-048B-16   | 3276  | AP Mines   | 30/03/2016  | Manual   | CHA   |
| Central Equatoria | Juba  | Lokiliri  | Nesitu   | SLG-001C-22   | 31206   | AT Mines   |   | Manual   | CHA   |
| Central Equatoria | Terekeka  | Tindilo   | Nyalek   | G4S-017B-23   | 28553   | AP Mines   | 2-Feb-23  | Manual   | CHA   |
| Central Equatoria | Terekeka  | Tindilo   | Nyalek   | G4S-028B-23   | 23686   | AT Mines   |   | Manual   | CHA   |
| Central Equatoria | Juba  | Lobonok   | Odemo  | NPA-172-13  | 25013   | AP Mines   | 06/11/2013  | Manual   | CHA   |
| Eastern Equatoria | Torit   | Bur   | Oudo   | TDI-036-16  | 67787   | AP Mines   | 16/04/2016  | Manual   | CHA   |
| Central Equatoria | Juba  | Rokon   | Rokon  | SLG-002C-24   | 0   | AP Mines   |   | Manual   | CHA   |
|                   | Central Equatoria Eastern Equatoria Eastern Equatoria Central Equatoria | Central Equatoria Juba Central Equatoria Lainya Central Equatoria Lainya Central Equatoria Juba Central Equatoria Juba Central Equatoria Lainya Central Equatoria Lainya Central Equatoria Lainya Central Equatoria Lainya Central Equatoria Torit Eastern Equatoria Magwi Central Equatoria Terekeka Eastern Equatoria Morobo Eastern Equatoria Morobo Central Equatoria Juba Central Equatoria Terekeka Central Equatoria Juba Central Equatoria Juba Central Equatoria Terekeka Central Equatoria Terekeka Central Equatoria Juba Central Equatoria Juba Central Equatoria Terekeka Central Equatoria Terekeka Central Equatoria Terekeka Central Equatoria Juba | Central Equatoria Juba Ganji Central Equatoria Juba Ganji Central Equatoria Lainya Kupera Central Equatoria Lainya Lainya Central Equatoria Juba Lirya Central Equatoria Lainya Kenyi Central Equatoria Yei Yei Town Eastern Equatoria Torit Bur Eastern Equatoria Magwi Pageri Central Equatoria Terekeka Nyori Eastern Equatoria Budi Komori Central Equatoria Morobo Gulumbi Eastern Equatoria Kapoeta East Katodori Central Equatoria Juba Lokiliri Central Equatoria Terekeka Tindilo Central Equatoria Juba Lobonok Eastern Equatoria Juba Lobonok Eastern Equatoria Torit Bur | Central Equatoria Juba Ganji Kuli Papa Central Equatoria Juba Ganji Kuli Papa Central Equatoria Lainya Kupera Kupera Central Equatoria Lainya Lainya Lainya Central Equatoria Juba Lirya Langabu Central Equatoria Lainya Kenyi Limbe Central Equatoria Yei Yei Town Logobero Eastern Equatoria Torit Bur Loudo Eastern Equatoria Magwi Pageri Lwala Central Equatoria Terekeka Nyori Limbe Central Equatoria Morobo Gulumbi Mundari Central Equatoria Kapoeta East Katodori Nanaknak Central Equatoria Juba Lokiliri Nesitu Central Equatoria Terekeka Tindilo Nyalek Central Equatoria Juba Lobonok Odemo Eastern Equatoria Juba Lobonok Odemo Eastern Equatoria Torit Bur Oudo | Central Equatoria Juba Ganji Kuli Papa G4S-076-16 Central Equatoria Juba Ganji Kuli Papa TDI-009-20 Central Equatoria Lainya Kupera Kupera DA-SS-4382 Central Equatoria Lainya Lainya Lainya G4S-050-23 Central Equatoria Juba Lirya Langabu G4S-177-13 Central Equatoria Lainya Kenyi Limbe TDI-035-13 Central Equatoria Lainya Kenyi Limbe G4S-014-23 Central Equatoria Lainya Kenyi Limbe G4S-016-22 Central Equatoria Lainya Kenyi Limbe G4S-011C-22 Central Equatoria Vei Yei Town Logobero G4S-011C-22 Eastern Equatoria Torit Bur Loudo MAG-213C-16 Eastern Equatoria Magwi Pageri Lwala SLG-019-22 Central Equatoria Terekeka Nyori Lwokil SLG-019-24 Eastern Equatoria Morobo Gulumbi Mundari G4S-013-22 Eastern Equatoria Kapoeta East Katodori Nanaknak MCH-048B-16 Central Equatoria Juba Lokiliri Nesitu SLG-001C-22 Central Equatoria Terekeka Tindilo Nyalek G4S-028B-23 Central Equatoria Terekeka Tindilo Nyalek G4S-028B-23 Central Equatoria Juba Lobonok Odemo NPA-172-13 Eastern Equatoria Torit Bur Oudo TDI-036-16 | Central Equatoria Juba Ganji Kuli Papa G4S-076-16 106919 Central Equatoria Juba Ganji Kuli Papa TDI-009-20 463 Central Equatoria Lainya Kupera Kupera DA-SS-4382 10350 Central Equatoria Lainya Lainya Lainya G4S-050-23 6192 Central Equatoria Juba Lirya Langabu G4S-177-13 9604 Central Equatoria Lainya Kenyi Limbe TDI-035-13 4908 Central Equatoria Lainya Kenyi Limbe G4S-014-23 21147 Central Equatoria Lainya Kenyi Limbe G4S-014-23 21147 Central Equatoria Lainya Kenyi Limbe G4S-016-22 7400 Central Equatoria Vei Yei Town Logobero G4S-011C-22 11942 Eastern Equatoria Torit Bur Loudo MAG-213C-16 0 Eastern Equatoria Terekeka Nyori Lwokil SLG-019-22 1600 Central Equatoria Terekeka Nyori Lwokil SLG-019-24 2500 Eastern Equatoria Morobo Gulumbi Monita MAG-303-15 20800 Central Equatoria Kapoeta East Katodori Nanaknak MCH-048B-16 3276 Central Equatoria Juba Lokiliri Nesitu SLG-001C-22 31206 Central Equatoria Terekeka Tindilo Nyalek G4S-017B-23 23686 Central Equatoria Terekeka Tindilo Nyalek G4S-028B-23 23686 Central Equatoria Juba Lobonok Odemo NPA-172-13 25013 | Central Equatoria Juba Ganji Kuli Papa G4S-076-16 106919 AT Mines Central Equatoria Juba Ganji Kuli Papa TDI-009-20 463 AT Mines Central Equatoria Lainya Kupera Kupera DA-SS-4382 10350 AP Mines Central Equatoria Lainya Lainya Lainya G4S-050-23 6192 AP Mines Central Equatoria Juba Lirya Langabu G4S-177-13 9604 AT Mines Central Equatoria Lainya Kenyi Limbe TDI-035-13 4908 AP Mines Central Equatoria Lainya Kenyi Limbe G4S-014-23 21147 AT Mines Central Equatoria Lainya Kenyi Limbe G4S-016-22 7400 AT Mines Central Equatoria Lainya Kenyi Limbe G4S-011C-22 11942 AP Mines Central Equatoria Torit Bur Loudo MAG-213C-16 0 AP Mines Eastern Equatoria Magwi Pageri Lwala SLG-019-22 1600 AT Mines Central Equatoria Terekeka Nyori Lwokil SLG-019-24 2500 AT Mines Central Equatoria Morobo Gulumbi Mundari G4S-013-22 10000 AT Mines Central Equatoria Kapoeta East Katodori Nanaknak MCH-048B-16 3276 AP Mines Central Equatoria Terekeka Tindilo Nyalek G4S-017B-23 23686 AT Mines Central Equatoria Terekeka Tindilo Nyalek G4S-028B-23 23686 AT Mines Central Equatoria Terekeka Tindilo Nyalek G4S-028B-23 23686 AT Mines Central Equatoria Torit Bur Oudo NPA-172-13 25013 AP Mines Central Equatoria Torit Rotit Bur Oudo NPA-172-13 25013 AP Mines | Central Equatoria         Juba         Ganji         Kuli Papa         G4S-076-16         106919         AT Mines         15/01/2016           Central Equatoria         Juba         Ganji         Kuli Papa         TDI-009-20         463         AT Mines         07/02/2019           Central Equatoria         Lainya         Kupera         DA-SS-4382         10350         AP Mines         26/01/2009           Central Equatoria         Lainya         Lainya         G4S-050-23         6192         AP Mines         26/01/2013           Central Equatoria         Juba         Lirya         Langabu         G4S-07-13         9604         AT Mines         15/12/2013           Central Equatoria         Lainya         Kenyi         Limbe         TDI-035-13         4908         AP Mines         26/04/2014           Central Equatoria         Lainya         Kenyi         Limbe         G4S-014-23         21147         AT Mines         23-Feb-23           Central Equatoria         Lainya         Kenyi         Limbe         G4S-016-22         7400         AT Mines         20-Jul-22           Central Equatoria         Yei         Yei Town         Logobero         G4S-0116-22         11942         AP Mines         22/04/2022           Easter | Central Equatoria         Juba         Ganji         Kuli Papa         G4S-076-16         106819         AT Mines         15/01/2016         Manual           Central Equatoria         Juba         Ganji         Kuli Papa         TDI-009-20         463         AT Mines         07/02/2019         Manual           Central Equatoria         Lainya         Kupera         DA-SS-4382         10350         AP Mines         26/01/2009         Manual           Central Equatoria         Lainya         Lainya         G4S-050-23         6192         AP Mines         15/10/2013         Manual           Central Equatoria         Juba         Lirya         Langabu         G4S-071-13         9604         AT Mines         15/12/2013         Manual           Central Equatoria         Lainya         Kenyi         Limbe         TDI-035-13         4908         AP Mines         26/04/2014         Manual           Central Equatoria         Lainya         Kenyi         Limbe         G4S-016-22         7400         AT Mines         23-Feb-23         Manual           Central Equatoria         Vei         Yei Town         Logobero         G4S-011C-22         11942         AP Mines         20-Jul-22         Manual           Eastern Equatoria         Magwi </td |

| Sub<br>Total |                   |          |          |            | 57          | 1,497,453 |          |            |        |     |
|--------------|-------------------|----------|----------|------------|-------------|-----------|----------|------------|--------|-----|
| GEQ          | Central Equatoria | Terekeka | Terekeka | Tindilo    | DA-SS-476   | 14294     | AP Mines | 06/06/2005 | Manual | SHA |
| GEQ          | Central Equatoria | Terekeka | Terekeka | Tindilo    | DA-SS-2123  | 5655      | AP Mines | 18/03/2008 | Manual | SHA |
| GEQ          | Central Equatoria | Terekeka | Terekeka | Tindilo    | DA-SS-473   | 3142      | AP Mines | 04/06/2005 | Manual | SHA |
| GEQ          | Central Equatoria | Terekeka | Terekeka | Tindilo    | DA-SS-478   | 8100      | AP Mines | 06/06/2005 | Manual | SHA |
| GEQ          | Central Equatoria | Terekeka | Terekeka | Tindilo    | DA-SS-477   | 12723     | AP Mines | 06/06/2005 | Manual | SHA |
| GEQ          | Eastern Equatoria | Magwi    | Magwi    | Magwi      | G4S-245-16  | 400       | AT Mines | 14/03/2016 | Manual | SHA |
| GEQ          | Central Equatoria | Juba     | Lobonok  | Lobonok    | DA-SS-3289  | 1257      | AP Mines | 25/03/2009 | Manual | SHA |
| GEQ          | Central Equatoria | Juba     | Lobonok  | Lobonok    | DCA-120-17  | 3735      | AP Mines | 17/03/2017 | Manual | SHA |
| GEQ          | Central Equatoria | Lainya   | Kupera   | Kupera     | DA-SS-3583  | 9000      | AP Mines | 25/03/2009 | Manual | SHA |
| GEQ          | Central Equatoria | Morobo   | Gulumbi  | Kendila    | DA-SS-6150  | 758       | AP Mines | 30/05/2012 | Manual | SHA |
| GEQ          | Eastern Equatoria | Magwi    | Pageri   | Ayii       | G4S-500-18  | 12000     | AP Mines | 22/07/2018 | Manual | SHA |
| GEQ          | Eastern Equatoria | Torit    | Hiyala   | Tirrangore | MAG-110-16  | 102938    | AP Mines | 20/05/2016 | Manual | СНА |
| GEQ          | Central Equatoria | Juba     | Lokiliri | Tingli     | G4S-026C-19 | 52866     | AP Mines | 08/04/2021 | Manual | СНА |
| GEQ          | Central Equatoria | Juba     | Lokiliri | Tingli     | G4S-001-19  | 28835     | AP Mines | 31/12/2018 | Manual | СНА |
| GEQ          | Central Equatoria | Terekeka | Terekeka | Tindilo    | DA-SS-1909  | 2400      | AP Mines | 11/02/2008 | Manual | СНА |
| GEQ          | Central Equatoria | Yei      | Yei Town | тсс        | NPA-078B-15 | 2440      | AP Mines |            | Manual | СНА |
| GEQ          | Central Equatoria | Terekeka | Tindilo  | Sommaring  | SIM-046a-15 | 1438      | AT Mines | 29/04/2015 | Manual | СНА |
| GEQ          | Central Equatoria | Yei      | Yei Town | Ronyi      | DDG-167-15  | 4464      | AP Mines | 08/10/2015 | Manual | СНА |

Table A.2: Summary of minefields for mechanical clearance in the Greater Equatoria region

| Region | State             | County       | Payam     | Boma       | Hazard ID        | Area Size | Hazard<br>Type | Date<br>Recorded | Methodology | CHA/SHA |
|--------|-------------------|--------------|-----------|------------|------------------|-----------|----------------|------------------|-------------|---------|
| GEQ    | Central Equatoria | Juba         | Mangala   | Bilinyang  | G4S-101-14       | 9,345     | Mined Road     | 4-Aug-14         | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Mangala   | Mogiri     | G4S-032C-21      | 2,550     | Mined Road     | 2-Feb-22         | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Rokon     | Rokon      | G4S-024-20       | 160,410   | Mined Road     | 23-Oct-20        | Mechanical  | СНА     |
| GEQ    | Eastern Equatoria | Magwi        | Pageri    | Amee       | MAG-026B-19      | 85,696    | AT Mines       | 25-Sep-19        | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lobonok   | Aru        | DCA-571B-15      | 148,956   | AP Mines       | 23-Apr-21        | Mechanical  | CHA     |
| GEQ    | Central Equatoria | Juba         | bungu     | Bele       | SLG-003C-22      | 44,810    | AP Mines       |                  | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Gondokoro | Billinyang | G4S-031-24       | 10,000    | AT Mines       |                  | Mechanical  | СНА     |
| GEQ    | Eastern Equatoria | Kapoeta East | Katodori  | Buno       | MCH-033-16       | 27,335    | AT Mines       | 4-Aug-16         | Mechanical  | SHA     |
| GEQ    | Central Equatoria | Lainya       | Mukaya    | Dimo       | DA-SS-4281       | 5,700     | AP Mines       | 3-Sep-10         | Mechanical  | SHA     |
| GEQ    | Central Equatoria | Kajo-Keji    | Liwolo    | Dongoro    | DML-175-15       | 13,000    | AP Mines       | 31-Oct-15        | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lirya     | Ilyangari  | G4S-116B-15      | 652       | AP Mines       | 17-Jun-21        | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lirya     | Ilyangari  | G4S-022-20       | 13,963    | AT Mines       | 8-Jul-20         | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lirya     | Ilyangari  | TDI-289-18       | 63,529    | AP Mines       | 6-Sep-18         | Mechanical  | СНА     |
| GEQ    | Eastern Equatoria | Torit        | Imurok    | Imurok     | SLG-023-21       | 14,038    | AT Mines       | 9-Mar-21         | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Yei          | Mugwo     | Jombu      | MA-IS-SS-74-SS-1 | 4,475     | AP Mines       | 27-Aug-07        | Mechanical  | SHA     |
| GEQ    | Central Equatoria | Yei          | Yei Town  | Kargulu    | DA-SS-6224       | 26,792    | AP Mines       | 8-Nov-12         | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lobonok   | Karpeto    | TDI-024-18       | 6,975     | AP Mines       | 19-Jan-18        | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lobonok   | Karpeto    | TDI-047-18       | 54,894    | AP Mines       | 2-Feb-18         | Mechanical  | СНА     |
| GEQ    | Central Equatoria | Juba         | Lobonok   | Karpeto    | G4S-501-18       | 10,000    | AT Mines       | 25-Jul-18        | Mechanical  | SHA     |
| GEQ    | Central Equatoria | Morobo       | Kimba     | Kaya       | G4S-317-14       | 8,464     | AP Mines       | 1-Feb-15         | Mechanical  | СНА     |

| GEQ | Western Equatoria | Mundri East  | Kediba        | Kediba    | DA-SS-5147       | 99,398  | AP Mines | 14-May-10 | Mechanical | СНА |
|-----|-------------------|--------------|---------------|-----------|------------------|---------|----------|-----------|------------|-----|
| GEQ | Western Equatoria | Mundri East  | Kediba        | Kediba1   | DA-SS-6102       | 108,707 | AP Mines | 21-May-12 | Mechanical | СНА |
| GEQ | Western Equatoria | Mundri East  | Kediba        | Kediba1   | DA-SS-6189       | 100,400 | AP Mines | 20-Jun-12 | Mechanical | SHA |
| GEQ | Central Equatoria | Juba         | Lobonok       | Kelang    | DML-180-15       | 78,000  | AP Mines | 13-Nov-15 | Mechanical | CHA |
| GEQ | Central Equatoria | Terekeka     | Tindilo       | Konyoki   | MAG-019B-19      | 35,201  | AP Mines | 13-Jul-19 | Mechanical | CHA |
| GEQ | Central Equatoria | Juba         | Northern Bari | Kwarijik  | G4S-012B-19      | 7,992   | AT Mines | 19-May-21 | Mechanical | SHA |
| GEQ | Western Equatoria | Mundri East  | Lozoh         | Lanyi     | DA-SS-6106       | 300     | AP Mines | 6-Jun-12  | Mechanical | CHA |
| GEQ | Central Equatoria | Juba         | Lirya         | Lirya     | DA-SS-4294       | 16,239  | AT Mines | 5-Apr-10  | Mechanical | SHA |
| GEQ | Central Equatoria | Juba         | Lobonok       | Lobonok   | G4S-076-15       | 2,446   | AP Mines | 22-Jun-15 | Mechanical | CHA |
| GEQ | Central Equatoria | Juba         | Lobonok       | Lobonok   | G4S-074-15       | 25,379  | AP Mines | 22-Jun-15 | Mechanical | CHA |
| GEQ | Central Equatoria | Yei          | Yei Town      | Logo 2    | MA-IS-SS-70-SS-2 | 12,081  | AT Mines | 22-Aug-07 | Mechanical | CHA |
| GEQ | Central Equatoria | Lainya       | Kenyi         | Loka West | DA-SS-6267       | 14,148  | AP Mines | 9-Jun-12  | Mechanical | CHA |
| GEQ | Central Equatoria | Lainya       | Lainya        | Lokurbang | G4S-033-24       | 31,769  | AP Mines |           | Mechanical | CHA |
| GEQ | Eastern Equatoria | Lafon        | Lohutok       | Loming    | MF-SS-43         | 83,835  | AP Mines | 2-Aug-08  | Mechanical | CHA |
| GEQ | Central Equatoria | Lainya       | Lainya        | Morata    | G4S-017-24       | 2,052   | AT Mines |           | Mechanical | CHA |
| GEQ | Eastern Equatoria | Kapoeta East | katodori      | Nangolet  | DA-SS-2084C      | 721,575 | AT Mines |           | Mechanical | SHA |
| GEQ | Central Equatoria | Juba         | Lokiliri      | Nesitu    | SLG-014-21       | 2,486   | AT Mines | 26-Jul-21 | Mechanical | CHA |
| GEQ | Central Equatoria | Juba         | Lirya         | Ngangala  | MTI-070-15       | 10,305  | AP Mines | 26-Feb-15 | Mechanical | SHA |
| GEQ | Central Equatoria | Juba         | Lirya         | Ngangala  | MAG-015B-19      | 7,986   | AP Mines | 25-May-21 | Mechanical | SHA |
| GEQ | Central Equatoria | Juba         | Lirya         | Ngangala  | SLG-002B-21      | 36,580  | AP Mines | 15-Jun-22 | Mechanical | SHA |
| GEQ | Eastern Equatoria | Budi         | Loriyok       | Ngarich   | MF-SS-36         | 33,599  | AP Mines | 18-Feb-08 | Mechanical | CHA |
| GEQ | Central Equatoria | Juba         | Lirya         | Ngulere   | DML-017-16       | 64,776  | AP Mines | 24-May-16 | Mechanical | СНА |

| GEQ       | Central Equatoria | Juba     | Lirya   | Obiri  | TDI-245-18       | 17,476    | AT Mines | 7-Dec-22  | Mechanical | SHA |
|-----------|-------------------|----------|---------|--------|------------------|-----------|----------|-----------|------------|-----|
| GEQ       | Central Equatoria | Juba     | Lobonok | Odemo  | DA-SS-6052E      | 82,733    | AP Mines |           | Mechanical | СНА |
| GEQ       | Eastern Equatoria | Torit    | Bur     | Oudo   | MTI-151-15       | 2,500     | AP Mines | 27-May-15 | Mechanical | SHA |
| GEQ       | Eastern Equatoria | Magwi    | Pajok   | Pajok  | G4S-532B-16      | 8,753     | AP Mines | 21-Jun-16 | Mechanical | СНА |
| GEQ       | Central Equatoria | Yei      | Mugwo   | Payawa | MA-IS-SS-73-SS-1 | 2,683     | AP Mines | 27-Aug-07 | Mechanical | СНА |
| GEQ       | Central Equatoria | Yei      | Mugwo   | Payawa | MA-IS-SS-73-SS-3 | 8,800     | AP Mines | 27-Aug-07 | Mechanical | cha |
| GEQ       | Central Equatoria | Terekeka | Tindilo | Peri   | G4S-358-17       | 415,327   | AP Mines | 22-Jun-17 | Mechanical | СНА |
| GEQ       | Eastern Equatoria | Magwi    | Pajok   | Pogee  | DA-SS-2115       | 217,904   | AP Mines | 13-Feb-08 | Mechanical | СНА |
| Sub Total |                   |          |         |        | 50               | 2,963,014 |          |           |            |     |

Table A.3: Summary of minefields for resurvey in the Greater Equatoria region

| Region | State             | County      | Payam         | Boma         | Hazard ID         | Area Size | Hazard<br>Type | Date<br>Recorded | Methodology | CHA/SHA |
|--------|-------------------|-------------|---------------|--------------|-------------------|-----------|----------------|------------------|-------------|---------|
| GEQ    | Western Equatoria | Maridi      | Landili       | Naam         | DA-SS-186         | 3,142     | Mined Road     | 25-Feb-04        | Resurvey    | cha     |
| GEQ    | Eastern Equatoria | Budi        | Komori        | Budi         | MF-SS-34          | 17,312    | AP Mines       | 17-Feb-08        | Resurvey    | СНА     |
| GEQ    | Eastern Equatoria | Budi        | Komori        | Budi         | MF-SS-31          | 11,250    | AP Mines       | 16-Feb-08        | Resurvey    | SHA     |
| GEQ    | Eastern Equatoria | Budi        | Komori        | Budi         | MF-SS-32          | 11,197    | AP Mines       | 16-Feb-08        | Resurvey    | СНА     |
| GEQ    | Eastern Equatoria | Budi        | Komori        | Budi         | MF-SS-33          | 5,000     | AP Mines       | 16-Feb-08        | Resurvey    | CHA     |
| GEQ    | Eastern Equatoria | Torit       | Bur           | Bur          | MAG-461-13        | 150       | AP Mines       | 03-Dec-13        | Resurvey    | СНА     |
| GEQ    | Western Equatoria | Mvolo       | Dari          | Dari         | MA-IS-SS-135-SS-1 | 82,500    | AP Mines       | 29-Feb-08        | Resurvey    | СНА     |
| GEQ    | Central Equatoria | Morobo      | Gulumbi       | Giliri       | G4S-314-14        | 0         | AP Mines       | 14-Nov-14        | Resurvey    | СНА     |
| GEQ    | Central Equatoria | Juba        | Northern Bari | Juba Na Bari | MAG-420-13        | 0         | AP Mines       | 06-Jun-13        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Juba        | Lobonok       | Karpeto      | TDI-051-12        | 0         | AP Mines       | 12-Apr-12        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Juba        | Lobonok       | Karpeto      | DA-SS-2814        | 1,963     | AT Mines       | 07-Apr-08        | Resurvey    | СНА     |
| GEQ    | Central Equatoria | Juba        | Lobonok       | Karpeto      | TDI-023-13        | 0         | AP Mines       | 08-Jul-20        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Kajo-Keji   | Nyepo         | Kekidi       | TDI-041-12        | 0         | AP Mines       | 05-Nov-12        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Lainya      | Kenyi         | Kenyi        | DA-SS-500         | 0         | AP Mines       | 25-Jul-05        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Morobo      | Gulumbi       | Kindi        | MA-IS-SS-90-SS-2  | 7,840     | AP Mines       | 09-Dec-07        | Resurvey    | SHA     |
| GEQ    | Central Equatoria | Juba        | Lobonok       | Kuruki       | MAG-589-13        | 10,000    | AT Mines       | 09-Sep-13        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Juba        | Lobonok       | Kuruki       | DA-SS-6022        | 521       | AP Mines       | 08-Jul-20        | Resurvey    | CHA     |
| GEQ    | Central Equatoria | Lainya      | Kenyi         | Limbe        | DA-SS-4981        | 0         | AP Mines       | 18-Jun-10        | Resurvey    | SHA     |
| GEQ    | Eastern Equatoria | Magwi       | Magwi         | Magwi        | DA-SS-5229        | 0         | AP Mines       | 19-Feb-11        | Resurvey    | SHA     |
| GEQ    | Western Equatoria | Mundri West | Mundri        | Mbara        | DA-SS-6107        | 107,917   | AP Mines       | 06-Jun-12        | Resurvey    | СНА     |

| GEQ       | Central Equatoria | Morobo   | Gulumbi  | Morobo  | DA-SS-2802        | 0       | AP Mines | 06-Jun-08 | Resurvey | СНА |
|-----------|-------------------|----------|----------|---------|-------------------|---------|----------|-----------|----------|-----|
| GEQ       | Central Equatoria | Morobo   | Gulumbi  | Morobo  | DA-SS-866         | 0       | AP Mines | 25-May-06 | Resurvey | СНА |
| GEQ       | Central Equatoria | Terekeka | Tindilo  | Rume    | MA-IS-SS-130-SS-1 | 12,760  | AP Mines | 03-Aug-08 | Resurvey | SHA |
| GEQ       | Central Equatoria | Juba     | Lobonok  | Sindiru | MAG-462-13        | 0       | AT Mines | 14-Jun-13 | Resurvey | СНА |
| GEQ       | Central Equatoria | Terekeka | Terekeka | Tindilo | DA-SS-1265        | 123,200 | AT Mines | 26-May-07 | Resurvey | СНА |
| GEQ       | Central Equatoria | Terekeka | Terekeka | Tindilo | DA-SS-1920        | 1,885   | AP Mines | 15-Feb-08 | Resurvey | СНА |
| GEQ       | Central Equatoria | Terekeka | Terekeka | Tindilo | DA-SS-5833        | 0       | AP Mines | 05-Jan-12 | Resurvey | СНА |
| GEQ       | Central Equatoria | Juba     | Lobonok  | Tombur  | MA-IS-SS-98-SS-3  | 9,750   | AP Mines | 20-Oct-07 | Resurvey | СНА |
| GEQ       | Central Equatoria | Juba     | Dolo     | Tuliang | MA-IS-SS-120-SS-1 | 19,500  | AP Mines | 11-May-07 | Resurvey | СНА |
| GEQ       | Central Equatoria | Yei      | Mugwo    | Yamba   | G4S-250-16        | 47,398  | AP Mines | 15-Mar-16 | Resurvey | СНА |
| GEQ       | Central Equatoria | Morobo   | Kimba    | Yondu   | DA-SS-6145        | 83,741  | AP Mines | 27-Apr-12 | Resurvey | SHA |
| Sub Total |                   |          |          |         | 31                | 557,026 |          |           |          |     |

Table A.4: Summary of cluster munitions for manual clearance in the Greater Equatoria region

| Region | State             | County           | Payam        | Boma         | Hazard ID   | Area Size | Hazard Type       | Date<br>Recorded | Methodology | CHA/SHA |
|--------|-------------------|------------------|--------------|--------------|-------------|-----------|-------------------|------------------|-------------|---------|
| GEQ    | Central Equatoria | Yei              | Tore         | Adiyo        | NPA-031-14  | 93,000    | Cluster Munitions | 21-Feb-14        | Manual      | CHA     |
| GEQ    | Eastern Equatoria | Magwi            | Pageri       | Amee         | MAG-001I-20 | 69,312    | Cluster Munitions |                  | Manual      | CHA     |
| GEQ    | Central Equatoria | Juba             | Lokiliri     | Aru          | G4S-029-23  | 93,000    | Cluster Munitions |                  | Manual      | CHA     |
| GEQ    | Central Equatoria | Juba             | Lokiliri     | Aru          | G4S-025I-19 | 51,171    | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Central Equatoria | Juba             | Lobonok      | Aru Junction | G4S-015E-21 | 65,032    | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Eastern Equatoria | Magwi            | Nimule       | Ayii         | MAG-001E-22 | 13,038    | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Eastern Equatoria | Magwi            | Pageri       | Ayii         | NPA-064C-15 | 16,186    | Cluster Munitions |                  | Manual      | CHA     |
| GEQ    | Eastern Equatoria | Magwi            | Pageri       | Ayii         | G4S-485F-16 | 70,977    | Cluster Munitions |                  | Manual      | CHA     |
| GEQ    | Western Equatoria | Mundri East      | Witto        | Baugyi       | G4S-082B-15 | 3,934     | Cluster Munitions | 19-Dec-21        | Manual      | CHA     |
| GEQ    | Eastern Equatoria | Torit            | Imurok       | Chuful       | G4S-134-15  | 93,000    | Cluster Munitions | 10-Oct-15        | Manual      | CHA     |
| GEQ    | Central Equatoria | Juba             | Ganji        | Ganji        | SLG-004-23  | 93,000    | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Central Equatoria | Yei              | Yei Town     | Gimunu       | G4S-018C-22 | 8,248     | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Eastern Equatoria | Ikotos           | Ikotos       | Ikotos       | G4S-028-19  | 93,000    | Cluster Munitions | 07-Feb-19        | Manual      | CHA     |
| GEQ    | Eastern Equatoria | Torit            | imurok       | Imurok       | G4S-026B-22 | 43,682    | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Eastern Equatoria | Torit            | imurok       | Imurok       | G4S-028-22  | 93,000    | Cluster Munitions | 13-Dec-22        | Manual      | CHA     |
| GEQ    | Eastern Equatoria | Torit            | Imurok       | Imurok1      | MAG-201C-16 | 41,742    | Cluster Munitions | 18-Jun-21        | Manual      | CHA     |
| GEQ    | Western Equatoria | Mundri West      | Mundri       | Janga        | G4S-029-24  | 93,000    | Cluster Munitions |                  | Manual      | SHA     |
| GEQ    | Eastern Equatoria | Kapoeta<br>South | Kapoeta Town | Kapoeta      | TDI-050-17  | 93,000    | Cluster Munitions | 01-Feb-18        | Manual      | СНА     |
| GEQ    | Central Equatoria | Juba             | Lobonok      | Karpeto      | NPA-055-15  | 93,140    | Cluster Munitions | 24-Apr-15        | Manual      | СНА     |

| GEQ | Central Equatoria | Juba             | Lobonok      | Karpeto            | G4S-536-18         | 35,772  | Cluster Munitions | 19-Dec-18 | Manual | СНА |
|-----|-------------------|------------------|--------------|--------------------|--------------------|---------|-------------------|-----------|--------|-----|
| GEQ | Eastern Equatoria | Magwi            | Magwi        | Kilo               | MAG-124B-18        | 196,517 | Cluster Munitions | 10-Dec-18 | Manual | СНА |
| GEQ | Central Equatoria | Morobo           | Kimba        | Kimba              | NPA-048-14         | 93,000  | Cluster Munitions | 04-Apr-14 | Manual | SHA |
| GEQ | Central Equatoria | Morobo           | Kimba        | Kimba              | NPA-049-14         | 93,000  | Cluster Munitions | 30-Apr-14 | Manual | SHA |
| GEQ | Eastern Equatoria | Kapoeta East     | Katodori     | Koroji<br>Loyakali | TDI-153-19         | 165,112 | Cluster Munitions | 04-Jan-19 | Manual | СНА |
| GEQ | Eastern Equatoria | Budi             | Komori       | Kuburich           | G4S-008-23         | 93,000  | Cluster Munitions |           | Manual | SHA |
| GEQ | Eastern Equatoria | Budi             | Komori       | Kuburich           | G4S-010-23         | 93,000  | Cluster Munitions | 09-Feb-23 | Manual | СНА |
| GEQ | Central Equatoria | Juba             | Dolo         | Kuda               | DA-SS-6610         | 93,000  | Cluster Munitions | 18-Jan-12 | Manual | cha |
| GEQ | Central Equatoria | Juba             | Lirya        | Lirya              | G4S-028-21         | 93,000  | Cluster Munitions | 16-Sep-21 | Manual | cha |
| GEQ | Eastern Equatoria | Magwi            | Pageri       | Loa                | DCA-001D-22        | 21,358  | Cluster Munitions | 15-Nov-22 | Manual | SHA |
| GEQ | Eastern Equatoria | Magwi            | Pageri       | Loa                | NPA-118C-13        | 93,000  | Cluster Munitions | 23-Jun-22 | Manual | SHA |
| GEQ | Eastern Equatoria | Magwi            | Pageri       | Loa                | G4S-021-23         | 90,166  | Cluster Munitions | 28-Apr-23 | Manual | SHA |
| GEQ | Eastern Equatoria | Magwi            | Magwi        | Lobure             | DRC-MA-002E-<br>23 | 0       | Cluster Munitions |           | Manual | СНА |
| GEQ | Central Equatoria | Terekeka         | Tindilo      | Lodunyi            | MAG-125D-18        | 37,745  | Cluster Munitions |           | Manual | СНА |
| GEQ | Central Equatoria | Juba             | Lokiliri     | Lokiliri           | TDI-037-21         | 93,000  | Cluster Munitions | 17-Mar-21 | Manual | cha |
| GEQ | Central Equatoria | Lainya           | Lainya       | Lokubang           | G4S-013B-24        | 0       | Cluster Munitions |           | Manual | СНА |
| GEQ | Central Equatoria | Lainya           | Lainya       | Lokurubang         | G4S-539-16         | 93,000  | Cluster Munitions | 20-Jun-16 | Manual | СНА |
| GEQ | Eastern Equatoria | Kapoeta<br>South | Kapoeta Town | Lomangole          | TDI-221B-18        | 93,000  | Cluster Munitions | 30-Apr-18 | Manual | СНА |
| GEQ | Central Equatoria | Yei              | Yei Town     | Longwuoko          | G4S-022C-22        | 4,887   | Cluster Munitions |           | Manual | СНА |
| GEQ | Central Equatoria | Juba             | Lirya        | Lowoi              | G4S-023C-13        | 15,310  | Cluster Munitions | 19-Sep-22 | Manual | СНА |
| GEQ | Eastern Equatoria | Magwi            | Magwi        | Luchari            | G4S-029D-19        | 29,860  | Cluster Munitions |           | Manual | СНА |

| GEQ | Central Equatoria | Juba             | Lirya    | Lyria       | SLG-020-22  | 93,000  | Cluster Munitions | 25-May-22 | Manual | СНА |
|-----|-------------------|------------------|----------|-------------|-------------|---------|-------------------|-----------|--------|-----|
| GEQ | Western Equatoria | Maridi           | Maridi   | Mabilindi   | G4S-138-18  | 93,000  | Cluster Munitions | 19-Feb-18 | Manual | SHA |
| GEQ | Eastern Equatoria | Magwi            | Magwi    | Magwi       | DA-SS-6018B | 5,879   | Cluster Munitions | 04-Apr-20 | Manual | СНА |
| GEQ | Western Equatoria | Maridi           | Maridi   | Maridi      | MAG-417-14  | 93,000  | Cluster Munitions | 29-Nov-14 | Manual | СНА |
| GEQ | Eastern Equatoria | Budi             | Komori   | Monita      | SLG-019-23  | 93,000  | Cluster Munitions |           | Manual | СНА |
| GEQ | Western Equatoria | Mundri West      | Mundri   | Mundri      | G4S-530E-18 | 41,120  | Cluster Munitions |           | Manual | СНА |
| GEQ | Eastern Equatoria | Torit            | hiyala   | Murahatiha  | G4S-024-23  | 93,000  | Cluster Munitions | 28-Mar-23 | Manual | СНА |
| GEQ | Eastern Equatoria | Kapoeta<br>South | Pwata    | Nakorongomo | TDI-052B-19 | 123,095 | Cluster Munitions |           | Manual | СНА |
| GEQ | Central Equatoria | Juba             | Lirya    | Ngulere     | DDG-002C-21 | 55,084  | Cluster Munitions | 14-Dec-21 | Manual | СНА |
| GEQ | Central Equatoria | Terekeka         | Tindilo  | Nyalek      | G4S-002-24  | 93,000  | Cluster Munitions |           | Manual | SHA |
| GEQ | Central Equatoria | Juba             | Lobonok  | Nyarbang    | TDI-094-20  | 93,000  | Cluster Munitions | 08-Jul-20 | Manual | СНА |
| GEQ | Eastern Equatoria | Magwi            | Magwi    | Obbo        | MAG-027-19  | 93,000  | Cluster Munitions | 10-Nov-19 | Manual | СНА |
| GEQ | Eastern Equatoria | Magwi            | Magwi    | Obbo        | MAG-030-19  | 93,000  | Cluster Munitions | 22-Nov-19 | Manual | SHA |
| GEQ | Central Equatoria | Juba             | Lokiliri | Odemo       | MAG-002-22  | 93,000  | Cluster Munitions | 03-Jul-22 | Manual | СНА |
| GEQ | Western Equatoria | Mundri West      | Mundri   | Okari       | G4S-030B-24 | 15,679  | Cluster Munitions |           | Manual | СНА |
| GEQ | Eastern Equatoria | Magwi            | Magwi    | Okila       | MAG-011H-19 | 8,190   | Cluster Munitions |           | Manual | SHA |
| GEQ | Eastern Equatoria | Torit            | Kudo     | Omeo        | G4S-009-20  | 93,000  | Cluster Munitions | 13-Mar-20 | Manual | SHA |
| GEQ | Eastern Equatoria | Magwi            | Pageri   | Opari       | G4S-036-23  | 93,000  | Cluster Munitions |           | Manual | SHA |
| GEQ | Eastern Equatoria | Torit            | Bur      | Oronyo      | G4S-003-21  | 93,000  | Cluster Munitions | 02-Jan-21 | Manual | CHA |
| GEQ | Eastern Equatoria | Magwi            | Pajok    | Owiny Kibul | G4S-279-18  | 293,553 | Cluster Munitions | 04-May-18 | Manual | CHA |
| GEQ | Eastern Equatoria | Magwi            | Pajok    | Pajok       | G4S-047-19  | 93,000  | Cluster Munitions | 12-Dec-19 | Manual | СНА |
| GEQ | Eastern Equatoria | Kapoeta          | Paringa  | Parenga     | TDI-252-19  | 93,000  | Cluster Munitions | 05-Jul-19 | Manual | cha |

|              |                   | North    |         |            |                   |           |                   |           |        |     |
|--------------|-------------------|----------|---------|------------|-------------------|-----------|-------------------|-----------|--------|-----|
| GEQ          | Central Equatoria | Terekeka | Tindilo | Peri       | MAG-018A-19       | 984,241   | Cluster Munitions | 07-Jan-19 | Manual | SHA |
| GEQ          | Central Equatoria | Terekeka | Tindilo | Peri       | MAG-008C-19       | 145,213   | Cluster Munitions | 19-Mar-20 | Manual | СНА |
| GEQ          | Eastern Equatoria | Magwi    | Nimule  | Rey        | DRC-MA-001-2<br>4 | 93,000    | Cluster Munitions |           | Manual | SHA |
| GEQ          | Central Equatoria | Terekeka | Tindilo | Somaring   | G4S-026-23        | 93,000    | Cluster Munitions | 05-Apr-23 | Manual | СНА |
| GEQ          | Central Equatoria | Terekeka | Tindilo | Sommaring  | MAG-128-18        | 55,456    | Cluster Munitions | 24-Nov-18 | Manual | СНА |
| GEQ          | Eastern Equatoria | Budi     | Komori  | Taar       | SLG-017-23        | 93,000    | Cluster Munitions |           | Manual | SHA |
| GEQ          | Eastern Equatoria | Torit    | imurok  | Taguor     | MAG-086B-16       | 63,585    | Cluster Munitions |           | Manual | СНА |
| GEQ          | Central Equatoria | Terekeka | Tindilo | Tindalo    | MAG-127C-18       | 93,381    | Cluster Munitions | 14-Nov-18 | Manual | СНА |
| GEQ          | Central Equatoria | Juba     | Rokon   | Tokokotulu | SLG-014D-24       | 0         | Cluster Munitions |           | Manual | СНА |
| Sub<br>Total |                   |          |         |            | 71                | 6,305,665 |                   |           |        |     |

Table A.5: Summary of cluster munitions requiring mechanical clearance in the Greater Equatoria region

| Region       | State             | County    | Payam    | Boma      | Hazard ID     | Area Size | Hazard Type       | Date<br>Recorded | Methodology | CHA/SHA |
|--------------|-------------------|-----------|----------|-----------|---------------|-----------|-------------------|------------------|-------------|---------|
| GEQ          | Eastern Equatoria | Magwi     | Magwi    | Aliya     | G4S-248C-16   | 119,050   | Cluster Munitions | 14-Mar-16        | Mechanical  | СНА     |
| GEQ          | Eastern Equatoria | Magwi     | Magwi    | Ame       | MAG-005C-19   | 93,000    | Cluster Munitions | 04-Mar-20        | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Kajo-Keji | Liwolo   | Dongoro   | DML-174-15    | 93,000    | Cluster Munitions | 26-Oct-15        | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Yei       | Yei Town | Gimunu    | DA-SS-6204    | 93,000    | Cluster Munitions | 08-Oct-12        | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Juba      | Lobonok  | Karpeto   | DA-SS-6304    | 475,503   | Cluster Munitions | 27-Oct-12        | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Yei       | Lasu     | Lasu      | DDG-090-16    | 93,000    | Cluster Munitions | 25-Mar-16        | Mechanical  | SHA     |
| GEQ          | Central Equatoria | Lainya    | Lainya   | Lobgili   | DA-SS-5760B   | 87,650    | Cluster Munitions | 18-Apr-18        | Mechanical  | СНА     |
| GEQ          | Eastern Equatoria | Magwi     | Magwi    | Lobure    | DRC-MA-004-23 | 9,887     | Cluster Munitions |                  | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Juba      | Lirya    | Ngulere   | SLG-005-21    | 44,577    | Cluster Munitions | 06-Jul-21        | Mechanical  | СНА     |
| GEQ          | Eastern Equatoria | Magwi     | Pajok    | Pajok     | MAG-281-15    | 179,628   | Cluster Munitions | 01-Feb-16        | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Juba      | Rokon    | Rokon     | SLG-015-24    | 41,325    | Cluster Munitions |                  | Mechanical  | СНА     |
| GEQ          | Eastern Equatoria | Torit     | Hiyala   | Tirangole | G4S-170-13    | 500,000   | Cluster Munitions | 10-Oct-10        | Mechanical  | СНА     |
| GEQ          | Central Equatoria | Yei       | Yei Town | Yei       | DA-SS-6200    | 93,000    | Cluster Munitions | 26-Jul-12        | Mechanical  | СНА     |
| Sub<br>Total |                   |           |          |           | 13            | 1,922,620 |                   |                  |             |         |

Table A.6: Summary of cluster munitions for resurvey in the Greater Equatoria region

| Region    | State                | County | Payam     | Boma     | Hazard ID  | Area Size | Hazard Type          | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|----------------------|--------|-----------|----------|------------|-----------|----------------------|------------------|-------------|---------|
| GEQ       | Central<br>Equatoria | Juba   | Wonduruba | Katigiri | DA-SS-5819 | 93,000    | Cluster<br>Munitions | 14-Apr-12        | Resurvey    | SHA     |
| GEQ       | Western<br>Equatoria | Nagero | Nagero    | Nagero   | TDI-072-12 | 175,698   | Cluster<br>Munitions | 19-Dec-12        | Resurvey    | CHA     |
| GEQ       | Central<br>Equatoria | Yei    | Yei Town  | Pakula   | MAG-070-12 | 93,000    | Cluster<br>Munitions | 10-Oct-12        | Resurvey    | CHA     |
| GEQ       | Central<br>Equatoria | Juba   | Dolo      | Tuliang  | DA-SS-6622 | 93,000    | Cluster<br>Munitions | 18-Jan-12        | Resurvey    | SHA     |
| Sub Total |                      |        |           |          | 4          | 454,698   |                      |                  |             |         |

Table A.7: Summary of battlefields for manual clearance in the Greater Equatoria region

| Region | State             | County   | Payam    | Boma      | Hazard ID   | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|--------|-------------------|----------|----------|-----------|-------------|-----------|-------------|------------------|-------------|---------|
| GEQ    | Central Equatoria | Juba     | Bungu    | Bungu     | G4S-046-19  | 36,159    | Battlefield | 12-Jan-19        | Manual      | СНА     |
| GEQ    | Central Equatoria | Morobo   | Gulumbi  | Gulumbi   | TDI-074-12  | 1,479     | Battlefield | 24-Dec-12        | Manual      | СНА     |
| GEQ    | Central Equatoria | Terekeka | Rijong   | Kalthok   | G4S-009-24  | 8,840     | Battlefield |                  | Manual      | SHA     |
| GEQ    | Central Equatoria | Juba     | Ganji    | Kuli Papa | MAG-289-14  | 28,900    | Battlefield | 31-May-14        | Manual      | СНА     |
| GEQ    | Central Equatoria | Juba     | Lobonok  | Lobonok   | DCA-112-17  | 43,469    | Battlefield | 15-Mar-17        | Manual      | СНА     |
| GEQ    | Central Equatoria | Juba     | Lokiliri | Lomega    | G4S-010B-22 | 8,130     | Battlefield | 15-Jun-22        | Manual      | СНА     |
| GEQ    | Central Equatoria | Juba     | Lokiliri | Lugaru    | G4S-030C-21 | 735       | Battlefield |                  | Manual      | СНА     |
| GEQ    | Central Equatoria | Juba     | Lobonok  | Luwala    | G4S-130-18  | 1,296     | Battlefield | 13-Feb-18        | Manual      | SHA     |
| GEQ    | Eastern Equatoria | Magwi    | Magwi    | Magwi     | MAG-282B-15 | 57,100    | Battlefield | 23-Oct-15        | Manual      | CHA     |

| GEQ       | Central Equatoria | Juba            | Lobonok  | Morsak      | G4S-330-18  | 43,011  | Battlefield | 5-Mar-18  | Manual | СНА |
|-----------|-------------------|-----------------|----------|-------------|-------------|---------|-------------|-----------|--------|-----|
| GEQ       | Eastern Equatoria | Kapoeta<br>East | Katodori | Nanaknak    | TDI-287-19  | 179,302 | Battlefield | 23-May-19 | Manual | CHA |
| GEQ       | Central Equatoria | Juba            | Lokiliri | Nyolo       | G4S-027C-19 | 598     | Battlefield | 12-Apr-20 | Manual | SHA |
| GEQ       | Central Equatoria | Juba            | Lobonok  | Odemo       | G4S-309-16  | 64,000  | Battlefield | 4-Mar-16  | Manual | SHA |
| GEQ       | Eastern Equatoria | Magwi           | Pajok    | Owiny Kibul | MAG-004-20  | 3,632   | Battlefield | 5-Jan-20  | Manual | СНА |
| GEQ       | Central Equatoria | Terekeka        | Terekeka | Yari        | G4S-375-17  | 21,833  | Battlefield | 27-Jun-17 | Manual | SHA |
| Sub Total |                   |                 |          |             | 15          | 498,484 |             |           |        |     |

Table A.8: Summary of battlefields for resurvey in the Greater Equatoria region

| Region    | State             | County      | Payam    | Boma     | Hazard ID  | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|-------------------|-------------|----------|----------|------------|-----------|-------------|------------------|-------------|---------|
| GEQ       | Eastern Equatoria | Torit       | Ifwotu   | Kicenga  | G4S-097-13 | 0         | Battlefield | 11-May-13        | Resurvey    | CHA     |
| GEQ       | Central Equatoria | Morobo      | Kimba    | Kimba    | TDI-021-13 | 4,674     | Battlefield | 21-Feb-13        | Resurvey    | CHA     |
| GEQ       | Central Equatoria | Yei         | Lasu     | Lasu     | DA-SS-4043 | 8,100     | Battlefield | 28-Jun-08        | Resurvey    | СНА     |
| GEQ       | Central Equatoria | Juba        | Lokiliri | Lokiliri | DA-SS-6056 | 23,230    | Battlefield | 25-May-12        | Resurvey    | SHA     |
| GEQ       | Central Equatoria | Morobo      | Lujulo   | Lujulo   | TDI-063-12 | 12,333    | Battlefield | 15-Dec-12        | Resurvey    | СНА     |
| GEQ       | Western Equatoria | Mundri East | Lozoh    | Wiroh    | G4S-021-19 | 10,000    | Battlefield | 4-Aug-19         | Resurvey    | CHA     |
| GEQ       | Central Equatoria | Lainya      | Wuji     | Wuji     | DA-SS-5799 | 28,655    | Battlefield | 20-Mar-12        | Resurvey    | CHA     |
| Sub Total |                   |             |          |          | 7          | 86,992    |             |                  |             |         |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Total known hazardous areas in the Greater Equatoria region are 248 equating to an area of 14,285,952 sqm

# Summary of the outstanding clearance requirement and approach for the Greater Bahr El Ghazal region

Table A.9: Summary of minefields for manual clearance in the Greater Bahr El Ghazal region

| Region    | State                      | County       | Payam             | Boma      | Hazard ID   | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|----------------------------|--------------|-------------------|-----------|-------------|-----------|-------------|------------------|-------------|---------|
| GBEG      | Warrap                     | Tonj South   | Tonj              | Amethcok  | SLG-027-22  | 61,184    | AT Mines    |                  | Manual      | CHA     |
| GBEG      | Western Bahr<br>El Ghazal  | Raga         | Ringi             | Kata      | G4S-018B-23 | 138,320   | Mined Road  |                  | Manual      | CHA     |
| GBEG      | Northern Bahr<br>El Ghazal | Aweil East   | Mangar<br>Atong 1 | Amothic   | SLG-008B-21 | 14,677    | AT Mines    |                  | Manual      | SHA     |
| GBEG      | Western Bahr<br>El Ghazal  | Wau          | Kpaile            | Bo-River  | DA-SS-326B  | 58,680    | AP Mines    |                  | Manual      | SHA     |
| GBEG      | Western Bahr<br>El Ghazal  | Raga         | Raga              | Hai Shems | SLG-024-22  | 5,878     | AT Mines    | 4-Aug-22         | Manual      | СНА     |
| GBEG      | Warrap                     | Gogrial East | Toch West         | Lietnohm  | G4S-346-18  | 40,000    | AP Mines    | 5-Sep-18         | Manual      | СНА     |
| GBEG      | Lakes                      | Yirol West   | Abang             | Yirol     | G4S-048B-23 | 31,708    | AT Mines    |                  | Manual      | СНА     |
| Sub Total |                            |              |                   |           | 7           | 350,447   |             |                  |             |         |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table A.10: Summary of minefields for mechanical clearance in the Greater Bahr El Ghazal region

| Region    | State                      | County      | Payam       | Boma         | Hazard ID   | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|----------------------------|-------------|-------------|--------------|-------------|-----------|-------------|------------------|-------------|---------|
| GBEG      | Northern Bahr<br>El Ghazal | Aweil North | Malual East | Mabior Angui | TDI-032I-19 | 52,176    | AP Mines    |                  | Mechanical  | СНА     |
| GBEG      | Northern Bahr<br>El Ghazal | Aweil North | Ariath      | Ngab Akot    | SLG-009-21  | 4,290     | AP Mines    | 14-Jul-21        | Mechanical  | SHA     |
| Sub Total |                            |             |             |              | 2           | 56,466    |             |                  |             |         |

Table A.11: Summary of battlefields for manual clearance in the Greater Bahr El Ghazal region

| Region    | State                      | County         | Payam       | Boma            | Hazard ID   | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|----------------------------|----------------|-------------|-----------------|-------------|-----------|-------------|------------------|-------------|---------|
| GBEG      | Western Bahr El<br>Ghazal  | Raga           | Uyujuku     | Abulu           | G4S-001-24  | 5,681     | Battlefield |                  | Manual      | СНА     |
| GBEG      | Lakes                      | Yirol West     | Mapuordit   | Aguran          | G4S-005-24  | 41,545    | Battlefield |                  | Manual      | SHA     |
| GBEG      | Lakes                      | Rumbek<br>East | Akot        | Ameth Agok      | G4S-003-24  | 138,131   | Battlefield |                  | Manual      | СНА     |
| GBEG      | Lakes                      | Cueibet        | Ngap        | Atemede         | G4S-052-23  | 254,118   | Battlefield |                  | Manual      | СНА     |
| GBEG      | Lakes                      | Rumbek<br>East | Maleng Agok | Ayen<br>Pachech | G4S-020-24  | 140,273   | Battlefield |                  | Manual      | СНА     |
| GBEG      | Northern Bahr<br>El Ghazal | Aweil North    | Malual East | Wathok          | G4S-008C-24 | 26,673    | Battlefield |                  | Manual      | СНА     |
| GBEG      | Lakes                      | Rumbek<br>East | Maleng Agok | Ayen<br>Pachech | G4S-051D-23 | 0         | Battlefield |                  | Manual      | СНА     |
| Sub Total |                            |                |             |                 | 7           | 606,421   |             |                  |             |         |

Table A.12: Summary of cluster munitions for manual clearance in the Greater Bahr El Ghazal region

| Region    | State                     | County     | Payam      | Boma       | Hazard ID   | Area Size | Hazard Type          | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|---------------------------|------------|------------|------------|-------------|-----------|----------------------|------------------|-------------|---------|
| GBEG      | Western Bahr El<br>Ghazal | Jur River  | Rocrocdong | Khor Jamus | SLG-026-24  | 15,656    | Cluster<br>Munitions |                  | Manual      | CHA     |
| GBEG      | Western Bahr El<br>Ghazal | Jur River  | Kuajena    | Kuajena    | SLG-017B-24 | 24,051    | Cluster<br>Munitions | 04-Dec-24        | Manual      | СНА     |
| GBEG      | Lakes                     | Yirol East | Pagarau    | Pajot      | G4S-030D-20 | 0         | Cluster<br>Munitions |                  | Manual      | СНА     |
| GBEG      | Western Bahr El<br>Ghazal | Wau        | Kpaile     | Bo-River   | TDI-002-24  | 93,000    | Cluster<br>Munitions |                  | Manual      | CHA     |
| GBEG      | Lakes                     | Yirol East | Pagarau    | Pajot      | G4S-030C-20 | 0         | Cluster<br>Munitions |                  | Manual      | CHA     |
| Sub total |                           |            |            |            | 5           | 132,707   |                      |                  |             |         |

Table A.13: Summary of cluster munitions for mechanical clearance in the Greater Bahr El Ghazal region

| Region    | State  | County     | Payam | Boma    | Hazard ID   | Area Size | Hazard Type          | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|--------|------------|-------|---------|-------------|-----------|----------------------|------------------|-------------|---------|
| GBEG      | Warrap | Tonj South | Tonj  | Sanayai | G4S-038C-19 | 93,000    | Cluster<br>Munitions | 31-Jan-20        | Mechanical  | СНА     |
| Sub total |        |            |       |         | 1           | 93,000    |                      |                  |             |         |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Total outstanding clearance requirements in the Greater Bahr El Ghazal region are 22 hazardous areas totalling 1,239,041 sqm.

# Summary of the outstanding clearance requirement and approach for the Greater Upper Nile region

Table A.14: Summary of minefields for manual clearance in the Greater Upper Nile region

| Region    | State      | County     | Payam               | Boma        | Hazard ID   | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|------------|------------|---------------------|-------------|-------------|-----------|-------------|------------------|-------------|---------|
| GUN       | Upper Nile | Manyo      | Adhidwoi            | Adhidwoi    | G4S-019-20  | 1,000     | Mined Road  | 6-Dec-20         | Manual      | SHA     |
| GUN       | Unity      | Pariang    | Jamjang             | Jam jang    | G4S-575B-17 | 70,000    | Mined Road  | 13-Dec-17        | Manual      | SHA     |
| GUN       | Upper Nile | Fashoda    | Kodok               | Kodoko      | G4S-514B-18 | 8,389     | Mined Road  | 6-Feb-21         | Manual      | СНА     |
| GUN       | Upper Nile | Fashoda    | Kodok               | Kodoko      | TDI-092-18  | 99,908    | Mined Road  | 22-Feb-18        | Manual      | СНА     |
| GUN       | Upper Nile | Panyikang  | Panyidwoi           | Obel        | G4S-204G-18 | 108,276   | Mined Road  |                  | Manual      | СНА     |
| GUN       | Jonglei    | Akobo      | Dengjok             | Wechpot     | SLG-009-22  | 13,920    | Mined Road  | 3-Jul-22         | Manual      | СНА     |
| GUN       | Unity      | Mayom      | Wangbuor_ii         | Wurach      | G4S-025-24  | 749,903   | Mined Road  |                  | Manual      | СНА     |
| GUN       | Upper Nile | Maban      | Boung               | Bunj        | G4S-012B-22 | 41,982    | AT Mines    |                  | Manual      | СНА     |
| GUN       | Upper Nile | Maban      | Boung               | Gismalla    | MCH-021B-18 | 63,106    | AP Mines    |                  | Manual      | СНА     |
| GUN       | Upper Nile | Malakal    | Lelo                | Gita Junubi | G4S-320F-18 | 5,762     | AP Mines    |                  | Manual      | СНА     |
| GUN       | Jonglei    | Canal-Pigi | Nyainthokmalua<br>I | Khor Fulus  | G4S-013-19  | 10,000    | AT Mines    | 21-Feb-19        | Manual      | СНА     |
| GUN       | Jonglei    | Pochalla   | Pochalla            | Oporiah     | G4S-253-16  | 20,000    | AT Mines    | 3-Sep-16         | Manual      | SHA     |
| GUN       | Upper Nile | Maban      | Boung               | Origi       | TDI-041-15  | 24,499    | AP Mines    |                  | Manual      | СНА     |
| GUN       | Upper Nile | Ulang      | Ulang               | Ulang       | G4S-025-20  | 2,176     | AP Mines    | 15-Sep-20        | Manual      | СНА     |
| Sub Total |            |            |                     |             | 14          | 1,218,921 |             |                  |             |         |

Table A.15: Summary of minefields for mechanical clearance in the Greater Upper Nile region

| Region       | State      | County     | Payam           | Boma          | Hazard ID         | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|--------------|------------|------------|-----------------|---------------|-------------------|-----------|-------------|------------------|-------------|---------|
| GUN          | Upper Nile | Fashoda    | Kodok Town      | Alganal       | TDI-062-18        | 160,000   | Mined Road  | 21-Feb-18        | Mechanical  | CHA     |
| GUN          | Jonglei    | Twic East  | Kongor          | Garalei       | G4S-559-17        | 261,600   | Mined Road  | 12-Aug-17        | Mechanical  | СНА     |
| GUN          | Jonglei    | Duk        | Ageer           | Poktap        | G4S-193-18        | 275,671   | Mined Road  | 3-Oct-18         | Mechanical  | SHA     |
| GUN          | Jonglei    | Duk        | Payuel          | Poktap        | G4S-263-18        | 643,457   | Mined Road  | 4-Jun-18         | Mechanical  | СНА     |
| GUN          | Jonglei    | Pochalla   | Pochalla        | Aparangom     | G4S-023-19        | 82,000    | AP Mines    | 16-Apr-19        | Mechanical  | СНА     |
| GUN          | Upper Nile | Maban      | Boung           | Bunj          | DDG-001-21        | 11,843    | AT Mines    | 8-Dec-21         | Mechanical  | СНА     |
| GUN          | Upper Nile | Melut      | Paloch          | Dingtoma      | MCH-026-18        | 320,000   | AT Mines    | 21-Feb-18        | Mechanical  | SHA     |
| GUN          | Upper Nile | Maban      | Khor El Amer    | Gufa          | DRC-MA-003-23     | 10,000    | AP Mines    |                  | Mechanical  | СНА     |
| GUN          | Upper Nile | Manyo      | Kaka            | Kaka          | DA-SS-2186        | 1,577     | AT Mines    | 16-Feb-08        | Mechanical  | СНА     |
| GUN          | Upper Nile | Manyo      | Kaka            | Kaka          | TDI-191-13        | 2,500     | AT Mines    | 30-May-13        | Mechanical  | СНА     |
| GUN          | Upper Nile | Maban      | Khor El Amer    | Khor El Lamer | DDG-048-19        | 7,708     | AT Mines    | 24-Jan-19        | Mechanical  | СНА     |
| GUN          | Jonglei    | Canal-Pigi | Nyainthokmalual | Khor Fulus    | NPA-040-13        | 12,282    | AT Mines    | 15-Feb-13        | Mechanical  | cha     |
| GUN          | Jonglei    | Canal-Pigi | Nyainthokmalual | Nyinthok      | MA-IS-SS-169-SS-1 | 6,006     | AT Mines    | 19-Mar-09        | Mechanical  | СНА     |
| GUN          | Jonglei    | Canal-Pigi | Nyainthokmalual | Nyinthok      | MA-IS-SS-169-SS-2 | 174,593   | AT Mines    | 19-Mar-09        | Mechanical  | СНА     |
| GUN          | Jonglei    | Fangak     | Phom            | PADchoul Kon  | MF-SS-52B         | 106,293   | AP Mines    | 2-Apr-20         | Mechanical  | SHA     |
| GUN          | Jonglei    | Akobo      | Dengjok         | Wechpot       | G4S-548-16        | 96,357    | AT Mines    | 3-Oct-22         | Mechanical  | СНА     |
| Sub<br>Total |            |            |                 |               | 16                | 2,171,887 |             |                  |             |         |

Table A.16: Summary of minefields for resurvey in the Greater Upper Nile region

| Region       | State   | County     | Payam           | Boma     | Hazard ID         | Area Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|--------------|---------|------------|-----------------|----------|-------------------|-----------|-------------|------------------|-------------|---------|
| GUN          | Jonglei | Duk        | Padiet          | Ayueldit | DA-SS-2234        | 8,498     | Mined Road  | 18-Apr-08        | Resurvey    | SHA     |
| GUN          | Jonglei | Canal-Pigi | Korwai          | Canal    | DA-SS-5724        | 250,000   | Mined Road  | 4-Jan-11         | Resurvey    | SHA     |
| GUN          | Jonglei | Canal-Pigi | Korwai          | Canal    | DA-SS-5725        | 300,000   | Mined Road  | 4-Jan-11         | Resurvey    | СНА     |
| GUN          | Jonglei | Akobo      | Bilkey          | Akobo    | DA-SS-4004        | 0         | AT Mines    | 30-Sep-09        | Resurvey    | СНА     |
| GUN          | Jonglei | Canal-Pigi | Atar            | Atar     | DA-LK-2           | 113       | AP Mines    | 27-Jun-05        | Resurvey    | СНА     |
| GUN          | Jonglei | Canal-Pigi | Atar            | Atar     | MF-SS-73          | 0         | AP Mines    | 8-Jul-20         | Resurvey    | СНА     |
| GUN          | Jonglei | Canal-Pigi | Korwai          | Canal    | DA-SS-2567        | 0         | AT Mines    | 5-Feb-08         | Resurvey    | CHA     |
| GUN          | Jonglei | Canal-Pigi | Korwai          | Canal    | DA-SS-2566        | 20,509    | AP Mines    | 5-Apr-08         | Resurvey    | CHA     |
| GUN          | Jonglei | Akobo      | Diror           | Kaikuin  | MA-IS-SS-166-SS-1 | 180,000   | AT Mines    | 4-Jun-09         | Resurvey    | CHA     |
| GUN          | Jonglei | Canal-Pigi | Wuonlam         | Khan     | MA-IS-SS-163-SS-1 | 220,000   | AP Mines    | 28-Mar-09        | Resurvey    | CHA     |
| GUN          | Jonglei | Canal-Pigi | Nyainthokmalual | Nyith    | MA-IS-SS-160-SS-1 | 139,650   | AP Mines    | 20-Mar-09        | Resurvey    | CHA     |
| GUN          | Jonglei | Canal-Pigi | Wuonlam         | Wunadol  | MA-IS-SS-165-SS-1 | 850,000   | AP Mines    | 28-Mar-09        | Resurvey    | CHA     |
| GUN          | Jonglei | Canal-Pigi | Wuonlam         | Wunkech  | MA-IS-SS-167-SS-1 | 135,000   | AP Mines    | 28-Mar-09        | Resurvey    | СНА     |
| GUN          | Jonglei | Canal-Pigi | Wuonlam         | Wunlem   | MA-IS-SS-185-SS-1 | 274,000   | AP Mines    | 28-Mar-09        | Resurvey    | SHA     |
| Sub<br>total |         |            |                 |          | 14                | 2,377,770 |             |                  |             |         |

Table A.17: Summary of cluster munitions tasks for manual clearance in the Greater Upper Nile region

| Region    | State      | County    | Payam    | Boma       | Hazard ID     | Area Size | Hazard Type       | Date Recorded | Methodology | CHA/SHA |
|-----------|------------|-----------|----------|------------|---------------|-----------|-------------------|---------------|-------------|---------|
| GUN       | Upper Nile | fashoda   | Dethok   | Abinyei    | G4S-002B-21   | 31,369    | Cluster Munitions | 07-Apr-24     | Manual      | СНА     |
| GUN       | Upper Nile | Maban     | Jinmakda | Banawira   | DRC-MA-001-23 | 93,000    | Cluster Munitions | 04-Apr-23     | Manual      | СНА     |
| GUN       | Upper Nile | Maban     | Boung    | Bunj       | DDG-098E-13   | 54,629    | Cluster Munitions | 24-Jun-22     | Manual      | СНА     |
| GUN       | Upper Nile | Maban     | Boung    | Bunj       | DDG-427B-18   | 24,431    | Cluster Munitions |               | Manual      | СНА     |
| GUN       | Jonglei    | Bor South | Kolnyang | Chuei Keer | G4S-023D-21   | 7,781     | Cluster Munitions | 21-Jul-22     | Manual      | СНА     |
| GUN       | Jonglei    | Twic East | Kongor   | Garele     | TDI-135C-18   | 18,081    | Cluster Munitions | 04-Jan-20     | Manual      | СНА     |
| GUN       | Jonglei    | Twic East | Kongor   | Kongor     | MAG-010-19    | 93,000    | Cluster Munitions | 27-May-19     | Manual      | СНА     |
| GUN       | Jonglei    | Akobo     | Bilkey   | Markas     | SLG-007B-22   | 71,160    | Cluster Munitions | 14-Apr-22     | Manual      | СНА     |
| GUN       | Jonglei    | Bor South | Kolnyang | Matok      | SLG-012B-23   | 43,617    | Cluster Munitions |               | Manual      | СНА     |
| Sub Total |            |           |          |            | 9             | 437,068   |                   |               |             |         |

Source: NMAA/UNMAS South Sudan IMSMA Database, 2025

Table A.18: Summary of cluster munitions tasks for resurvey in the Greater Upper Nile region

| Region    | State   | County | Payam  | Boma  | Hazard ID  | Area Size | Hazard Type       | Date Recorded | Methodology | CHA/SHA |
|-----------|---------|--------|--------|-------|------------|-----------|-------------------|---------------|-------------|---------|
| GUN       | Jonglei | Akobo  | Bilkey | Akobo | DA-SS-4269 | 93,000    | Cluster Munitions | 14-Feb-10     | Resurvey    | СНА     |
| GUN       | Jonglei | Akobo  | Bilkey | Akobo | DA-SS-4366 | 93,000    | Cluster Munitions | 18-Feb-10     | Resurvey    | SHA     |
| Sub Total |         |        |        |       | 9          | 186,000   |                   |               |             |         |

Table A.19: Summary of battlefield tasks for manual clearance in the Greater Upper Nile region

| Region    | State      | County             | Payam            | Boma           | Hazard ID   | Area<br>Size | Hazard Type | Date<br>Recorded | Methodology | CHA/SHA |
|-----------|------------|--------------------|------------------|----------------|-------------|--------------|-------------|------------------|-------------|---------|
| GUN       | Jonglei    | Bor South          | Kolnyang         | Chueikeer      | SLG-028-24  | 110,526      | Battlefield |                  | Manual      | СНА     |
| GUN       | Upper Nile | Melut              | Galdora          | Galdora        | G4S-371-18  | 2,500        | Battlefield | 14-May-18        | Manual      | СНА     |
| GUN       | Upper Nile | Melut              | Galdora          | Galdora        | G4S-335-18  | 51,434       | Battlefield | 5-Apr-18         | Manual      | СНА     |
| GUN       | Upper Nile | Malakal            | Northern Malakal | Lowakt Shamali | G4S-503-17  | 88,382       | Battlefield | 11-Feb-17        | Manual      | СНА     |
| GUN       | Upper Nile | Maiwut             | Maiwut           | Maiwut         | G4S-026-24  | 87,724       | Battlefield |                  | Manual      | СНА     |
| GUN       | Upper Nile | Luakpiny-Na<br>sir | Nasir            | Nasir          | G4S-133-17  | 13,936       | Battlefield | 30-Mar-17        | Manual      | СНА     |
| GUN       | Upper Nile | Manyo              | Wedakona         | Wedakona       | G4S-003-20  | 52,500       | Battlefield | 28-Jan-20        | Manual      | СНА     |
| GUN       | Unity      | Rubkona            | Budaang          | Yoahnyany      | G4S-031D-19 | 15,922       | Battlefield | 4-Jun-20         | Manual      | СНА     |
| Sub Total |            |                    |                  |                | 8           | 422,924      |             |                  |             |         |

Total outstanding clearance requirements in the Greater Upper Nile region are 63 hazardous areas totalling 6,814,570 sqm.

**Annex B: NMAA Generic Concept Note** 





# Strengthening National Mine Action Capacity for Peace, Stability, and Development in South Sudan

A Concept Note



A deminer carrying out manual mine clearance in Maban, Upper Nile State, South Sudan

| Project Title                | Strengthening National Mine Action Capacity for Peace, Stability, and Development in South Sudan  |  |  |
|------------------------------|---|--|--|
| Geographical Coverage        | All States in South Sudan   |  |  |
| Beneficiaries                | Government of South Sudan - the National Mine Action Authority (NMAA) At-risk communities and individuals                                       |  |  |
| Implementing<br>Organization | The National Mine Action Authority (NMAA)   |  |  |
| Project Duration             | 18 months   |  |  |
| Funds Requested              | USD 2,360,000   |  |  |
| NMAA Contact                 | Hon. Jurkuch Barach Jurkuch Chairperson, National Mine Action Authority- Republic of South Sudan Chairperson +211921651088 jbarach70@gmail.com] |  |  |

#### 1. Summary

The Republic of South Sudan continues to face significant challenges in addressing the aftermath of decades of conflict. Landmines and unexploded ordnance (UXO) are widespread in many parts of the country, posing severe risks to civilian lives, hindering development, and restricting access to vital resources. The National Mine Action Authority (NMAA), the key governmental body responsible for managing mine action efforts in South Sudan, is vital for coordinating and overseeing the efforts to clear landmines and other explosive ordnance (EO).

Despite the NMAA's critical role, the authority faces several challenges, including limited capacity, lack of advanced technical skills, and inadequate operational resources. The effective implementation of mine action activities requires robust expertise in areas such as operational planning, information management, and land release methods.

Due to operational and increasingly financial constraints, South Sudan is currently not on track to meet its 2026 completion deadline under the Anti-Personnel Mine Ban Convention (APMBC). In response, the NMAA is in the process of preparing an Article 5 Extension Request, proposing a new deadline of 2030. Strengthening the capacity of the NMAA is critical to ensuring that South Sudan can meet this revised target, protect its citizens from explosive threats, and contribute meaningfully to long-term peacebuilding and development.

#### 2. Rationale

#### 2.1 Project needs

The humanitarian crisis in South Sudan remains dire, with 9 million people in need of humanitarian assistance or protection services and 5.2 million<sup>12</sup> individuals facing severe living conditions challenges. Compounding this situation are the urgent and unpredictable demands for rebuilding state capacity to facilitate the safe return of 861,600 refugees currently sheltered in Uganda<sup>13</sup> and those fleeing the conflict in Sudan. Explosive ordnance (EO) contamination poses a significant barrier to these efforts. Approximately 22km² of land remains contaminated, encompassing 334 priority tasks, including 190 minefields, 106 cluster munition strikes, and 38 battlefields<sup>14</sup>.

NMAA is the government body mandated to authorize and coordinate mine action operations in South Sudan. It is currently supported by UNMAS in fulfilling its mandate. However, the capacity of the NMAA to effectively manage and coordinate mine action efforts remains constrained, particularly in the face of escalating needs driven by humanitarian, environmental, economic and political crises. Strengthening the NMAA's institutional, managerial, and operational capacity is critical to enabling the timely and effective response needed to mitigate risks from EO, prevent casualties, and support broader humanitarian and development goals.

By empowering NMAA to fulfill its obligations under the APMBC and manage operations sustainably, the project will indirectly support vulnerable groups, including returnees, IDPs, and affected communities, in particular children, while aligning with South Sudan's humanitarian and development priorities.

The National Mine Action Authority is the grant recipient for this project and is in alignment with the strategic objectives of the Authority as well as its vision to assume full responsibility for the long-term coordination of clearance efforts. However, to do so, there are still immediate and acute needs to develop its managerial and oversight capacity to plan, coordinate, and monitor the tasking of mine action to enable safe returns and socio-economic development.

# 2.2 Strategic advantage and alignment

The project is aligned with the Government of South Sudan's national policy and strategies, including the National Development Strategy (NDS), by contributing to its objective of strengthening national institutions' governance and institutional capacity. It further aligns with South Sudan's NMAA Act (2023), which mandates the NMAA to manage all mine action operations, and the South Sudan National Mine Action Strategy (2024 - 2028), which promotes national ownership as one of its objectives. It also addresses cross-cutting themes, including the Grand Bargain, which enhances the efficiency of humanitarian action, and the mine action Gender Equality and Diversity policy, which was adopted in early 2025.

The project will also contribute to the Sustainable Development Goals (SDGs). An improvement in the NMAA's capacity to coordinate mine action operations in South Sudan will accelerate "SDG 2: Zero Hunger" through survey of agricultural areas and "SDG 16: Peace, Justice, and Strong Institutions" through survey and clearance of EO, provision of EORE, and support for building the capacity of the national institution, the NMAA. In addition, the project will contribute to achieving "SDG 3: Good Health and Well-being," "SDG 4: Quality Education," and "SDG 6: Clean Water and Sanitation" through the removal of EO from key infrastructure. This project also links to the 2024 Humanitarian Needs and Response Plan for South Sudan (HNRP), in which humanitarian mine action interventions are represented.

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<sup>&</sup>lt;sup>12</sup> UNOCHA Humanitarian Needs and Response Plan 2024 https://humanitarianaction.info/plan/1157

<sup>13</sup> Ibidem

<sup>&</sup>lt;sup>14</sup>UNMAS South Sudan IMSMA database as of 28 February 2025

#### 3. Project Components

This initiative seeks to achieve the following key components, aligned to the national mine action strategy.

# Component 1: The NMAA's internal managerial structure and capacity to oversee and coordinate the national mine action response are strengthened.

# Output 1.1 The internal management structure, including internal controls and financial compliance, are enhanced

- Deploy an in-house specialist consultant on audit and compliance to advise the NMAA and provide on-the-job (OJT) training on strengthening internal management systems and practices.
- Support the development and implementation of internal controls and financial compliance mechanisms
- Advise on the design and institutionalisation of internal management structures, including roles and responsibilities, decision-making processes, and operational policies

## Output 1.2 The capacity to plan, supervise, and oversee Mine Action operations is strengthened

- Deploy an in-house operations specialist consultant to advise the NMAA provide OJT on technical and operational planning and oversight matters
- Support the development and implementation of national standards, standard operating procedures (SOPs)
- Advise on the design of planning tools related to operations coordination, quality assurance/control, and task prioritisation
- Provide technical guidance and capacity-building support to strengthen NMAA's role in the quality management and oversight of field operations
- Provide specialized training for selected staff

# Output 1.3 The capacity to manage and utilise information for mine action planning, monitoring, and evaluation is strengthened

- Deploy an in-house national consultant on information management to advise the NMAA and provide OJT training on the use of IM tools and systems, in particular the Information Management System for Mine Action (IMSMA)
- Support the use and institutionalisation of Geographic Information Systems (GIS), and other data management tools to support evidence-based planning and reporting.
- Provide technical assistance and capacity building to enhance the NMAA's ability to analyse, visualise, and communicate mine action data for operational coordination, quality assurance, and decision-making.
- Provide specialized training for selected staff

# Component 2: NMAA restores operational readiness and carries out survey and clearance operations.

#### Output 2.1 1x mechanical assets are refurbished to restore operational readiness

- Conduct a comprehensive technical assessment of NMAA's existing mechanical clearance assets to determine operational readiness and define refurbishment requirements and specifications.
- Carry out mechanical clearance asset refurbishment

#### Output 2.2 Previously contaminated land is released though mechanical clearance operations

- Mobilization of 1x NMAA mechanical integrated clearance operations team
- Carry out mechanical integrated clearance assets operations
- Provide regular operational reporting into IMSMA as per NTSG

### Output 2.3 Previously contaminated land is released though manual land release activities

- Mobilization of 1x NMAA multi-task operations team
- o Carry out land release activity, including survey and clearance and EO risk education
- Provide regular reporting into IMSMA as per NTSG

# Component 3: Provision of child-focused Explosive Ordnance Risk Education, and of victim assistance in South Sudan is enhanced

### Output 3.1 Child-focused EORE material is developed and disseminated, and victim assistance

- Develop and test child-focused EORE material, including radio drama, leaflets and games
- Carry out training on child-friendly EORE delivery for mine action sector partners
- Print and disseminate EORE material to sector partners
- Develop victim assistance referral system
- o Carry out training on victim assistance referral system for mine action sector partners

### 4. Partnerships

- (1) National/Local Governments: National Mine Action Authority (NMAA)
- (2) UN agencies: UNMAS currently supports NMAA with co-coordination of the sector.
- (3) International NGOS (MAG, DRC, DCA)
- (4) National NGOs

### 5. Monitoring and Reporting

- (1) Quarterly reports
- (2) Annual Financial Reports
- (3) Post-completion monitoring 3 months after the end of the project.

### 6. Budget (USD)

Total: USD 2,360,000

|             | Description  | Amount (USD) |
|-------------|--|--------------|
|             | The NMAA's internal managerial structure and its capacity to         |              |
|             | oversee and coordinate the national mine action response, is         |              |
| Component 1 | strengthened.  | 871,672      |
|             | Internal management structure, including internal controls and       |              |
| 1-1         | financial compliance, is enhanced                                    | 270,000      |
|             | The capacity to plan, supervise, and oversee Mine Action operations  |              |
| 1-2         | is strengthened  | 478,338      |
|             | Capacity to manage and utilise information for mine action planning, |              |
| 1-3         | monitoring, and evaluation is strengthened                           | 123,334      |
|             | NMAA restores operational readiness and carries out survey           |              |
| Component 2 | and clearance operations.  | 1,233,783    |
|             | 1x mechanical assets are refurbished to restore operational          |              |
| 2-1         | readiness  | 206,312      |
|             | Previously contaminated land is released through mechanical          |              |
| 2-2         | integrated clearance operations team                                 | 784,764      |
| 2-3         | Previously contaminated land is released through manual land         | 242,707      |

|             | release activities   |           |
|-------------|--|-----------|
|             | Provision of child-focused Explosive Ordnance Risk Education,  |           |
| Component 3 | and of victim assistance in South Sudan, is enhanced           | 40,000    |
|             | Child-focused EORE material is developed and disseminated, and |           |
| 3-1         | victim assistance  | 40,000    |
| Sub-Total   | Project Direct Costs   | 2,145,455 |
| Sub-Total   | Project Support Costs (10%)                                    | 214,545   |
| Total       | Project Costs  | 2,360,000 |

Annex C: Mines Advisory Group (MAG) work plan in support to South Sudan's Article 5 Obligations



# Minefield clearance in Central and Eastern Equatoria to Support South Sudan's Article 5 Obligations

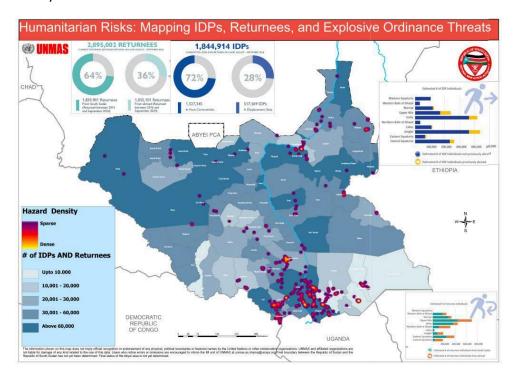
#### Mine-related and Humanitarian Situation in the Project Region

South Sudan was home to one of the longest and most brutal conflicts in the recent history of Africa. From 1955 until 1972 and then again from 1983 until 2005, the Sudan People's Liberation Movement/Army (SPLM/A) and the Government of Sudan (GoS), fought one of the deadliest wars of the 20<sup>th</sup> century, leading to an estimated 2 million deaths, famine, and widespread displacement. Although the war ended with the signing of the Comprehensive Peace Agreement in 2005 and the independence of South Sudan in 2011, the contamination by explosive ordnance continues to affect the most vulnerable communities in the country. The legacy of the landmines and explosive remnants of war that were left by all parties to the conflict remains as of today. Clearance of these hazards has also been stymied due to the conflict that erupted in the newly formed state in 2013 and the resumption of hostilities in 2016.

According to data provided by the United Nations Mine Action Service (UNMAS), all 10 states of South Sudan have reported some degree of EO contamination. As of February 2025, a total of 22,019,027 sqm have been confirmed to be contaminated. Central and Eastern Equatoria contain, by far, the most extensive contamination, with 6,889,635 sqm and 6,061,632 sqm respectively. In South Sudan, six counties are classified as having *catastrophic* EO contamination; five of which are located in the Equatoria states.

In addition to being the most heavily contaminated regions of South Sudan, the states of Central and Eastern Equatoria also border Uganda, which hosts large numbers of South Sudanese refugees. Given the changes in the security context and the reduction of funding in Uganda, an increasing number of returning refugees are coming back to South Sudan and settling in or transiting Central and Eastern Equatoria states, with many more are expected to return over the following years. As per UNMAS data (see map below), the states with the most hazardous areas recorded in the IMSMA database are also between the states hosting the highest number of returnees and are also. In most of the cases, returnees are not aware of the presence of

explosive hazards, as it has been laid after they were displaced, or of legacy contamination in a new area they have settled.



As communities return and expand, the demand for land for housing, agriculture and infrastructure will increase. Livelihood activities, from herding and grazing cattle, to farming in South Sudan's most fertile areas, are restricted by landmines in East and Central Equatoria. In this regard, increasing the amount of land available to communities for safe, productive use will increase resilience and reduce reliance on other forms of aid.

#### **Project Design**

MAG has scalable response capacity that can be mobilised to clear landmines. MAG aims to deploy one mechanical team utilizing MAG's mechanical assets (currently 2 x Bozena and 1 x PT300) and four manual demining team. The mechanical approach is well known as it tends to achieve higher targets than manual clearance, however, not all tasks are suited for such heavy assets, and can only be cleared with manual capacity. It is worth noting that mechanically assisted clearance is not possible during the wettest months of the year, therefore the team stands down during such period.

MAG has a strong background conducting mechanically assisted clearance in South Sudan, including the use of MineWolf330, MineWolf370, PT300 and Bozenas. In 2024, MAG cleared 671,398 sqm through mechanically assisted clearance, despite the biggest asset (PT300) being unserviceable most of the year due to spare part issues.

MAG's mechanical capacity deploys teams consisting of 2 machine operators, 12 deminers, 1 deputy and 1 team leader, 2 technical field manager, and 2 medics as well as drivers, mechanic, and cooks to support the team in the field to conduct mechanically assisted minefield clearance. Additional staff will allow the team to operate on a rotational leave, to maximize the number of working days during the months when operations are feasible.

MAG's manual capacity consists of the deployment of manual minefield clearance teams of 10 deminers, 1 deputy and 1 team leader, and 1 technical field manager, along with the requisite drivers, medics (1), and cooks to support the team. In addition, MAG has the capacity increase its capacity by scaling up the manual component of this project and modifying existing multi-task teams into larger mine action teams, if additional funding were made available.

In line with the Article 5 extension submitted by the Government of South Sudan, MAG expects to deploy the mechanical capacity for 3 years (2026-2028) and the manual capacity for 5 years (2026-2030). If two teams were funded for the full period, MAG would expect to clear over 6 million square metres of minefields within five years.

# **Summary Logical Framework:**

#### **Project impact:**

South Sudan meets its Article 5 obligations.

Land release builds community resilience and supports the integration of returnees by increasing the amount of land available for safe use by women, girls, boys and men.

**Project Outcome (immediate)**: Women, girls, boys, and men are able to use land safely for farming, housing, grazing of cattle, natural resources, infrastructure, community services, and access.

| Yearly Outputs   | Activity   |
|--|--|
| Output 1: 700,000 square metres of land released through mechanically assisted clearance and technical survey (9 months of operations) | Activity 1.1: MAG resurveys hazardous areas as necessary to determine as precisely as possible the boundaries of the minefield. Cancellation of land that is confirmed as un contaminated is possible, although significant cancellation is not expected in the area of operations.  Activity 1.2: MAG will conduct mechanically assisted minefield clearance with a trained and accredited team, while clearance utilising a machine is possible. |
| Output 2: 800,000 square metres of land released through manual clearance and technical survey (12 months of operations)               | Activity 2.1: MAG resurveys hazardous areas as necessary to determine as precisely as possible the boundaries of the minefield. Cancellation of land that is unlikely to be contaminate is possible, but significant cancellation is not expected in the area of operations.  Activity 2.2: MAG will conduct manual minefield clearance with a trained and accredited team.  |

#### Budget

| Total Amount Requested:         |            |
|---------------------------------|------------|
| Mechanical Capacity (per year): | €2,500,000 |
| Manual Capacity (per year):     | €3,000,000 |