CONVENTION ON CLUSTER MUNITIONS

REQUEST FOR EXTENSION OF DEADLINE PRESCRIBED IN ARTICLE 4(1)

PNDHD

STATE PARTY: ISLAMIC REPUBLIC OF MAURITANIA

NOUAKCHOTT, 03 Mars 2023

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Executive Summary

Mauritania signed the Convention on Cluster Munitions (CCM) on 19 April 2010, ratified it on 1 February 2012, and the Convention entered into force for Mauritania on 1 August 2012. Mauritania is already compliant with Article 3 of the CCM, having never used, stockpiled or transferred cluster type munitions. Compliance with Article 4 of the Convention was declared in September 2014 after all previously known CM strike sites were cleared in the country.

Mauritania reported in its CCM Article 7 transparency report covering 2019 that it had discovered previously unknown CM-contaminated areas under its jurisdiction or control that will now require additional clearance work.

An initial assessment of these newly identified areas was conducted in February of 2021. The current estimate of the remaining cluster munitions (CM) contamination is **14,017,596** square meters connected to 9 different locations. The **14,017,596** square meters of newly identified CM contamination are located in the far north of the country in the Tiris Zemmour region (see more detailed breakdown and map below). All identified CM contaminated areas are clearly under Mauritania's jurisdiction and control and thus need to be addressed under article 4 of the CCM.

Duration of the Proposed Extension

Current Article 4 Deadline: 1 August 2024

Length of Extension Period Requested: 2 years

New Extended Article 4 Deadline Requested: 1 August 2026

Risks:

- Inability to mobilize sufficient resources, nationally and internationally, to complete activities;
- Change in the current security situation limiting access to contaminated areas Assumptions;
- Current estimates of contamination remain the same (no or limited additional areas are identified during further survey and clearance work);
- Development of national capacity to deal with any additional / future identified residual risk;
- Difficulties of access and safety issues at the Malian border aera, due to potential crossing by armed groups.

1. Background

The contamination of the Islamic Republic of Mauritania in the north is owing to its role in the Western Sahara conflict of 1976-1978, which was characterised by the use of a substantial quantity of CM, typically haphazardly.

After completing non-technical and technical survey work in 2012, CM continues to murder and maim communities, hinder development in northern Mauritania, and halt economic activity like as grazing, mining exploration, tourism, and commerce.

In the year 2000, Mauritania established the National Humanitarian Demining Program for Development (PNDHD) with the purpose of addressing the issue of landmine contamination within its territory. Subsequently, following the ratification of the Convention on Cluster Munitions by the Mauritanian authorities in 2012, the PNDHD witnessed an expansion of its mandate to encompass cluster munitions. The PNDHD operates as a governmental institution under the oversight of the Ministry of the Interior and Decentralization and is subject to monitoring by an inter-ministerial steering committee. Serving as the primary entity responsible for the implementation of the Convention on Cluster Munitions, the PNDHD assumes the role of coordinating all activities pertaining to this domain.

2. Previous Clearance Activities (2012 - 2014)

In 2012 and 2013, in accordance with Article 4 (1) of the CCM, Mauritania conducted technical survey and clearance activities of all then currently know CM munition contaminated areas.

With the support of the international community, in particular Norway, a total area of **2,535,312m² was cleared** and **1,286 CM were destroyed** Mauritania subsequently reported to have fulfilled its obligations under Article 4(1) on 9 September 2014 during the Fifth Meeting of States Parties after completing this initial work.

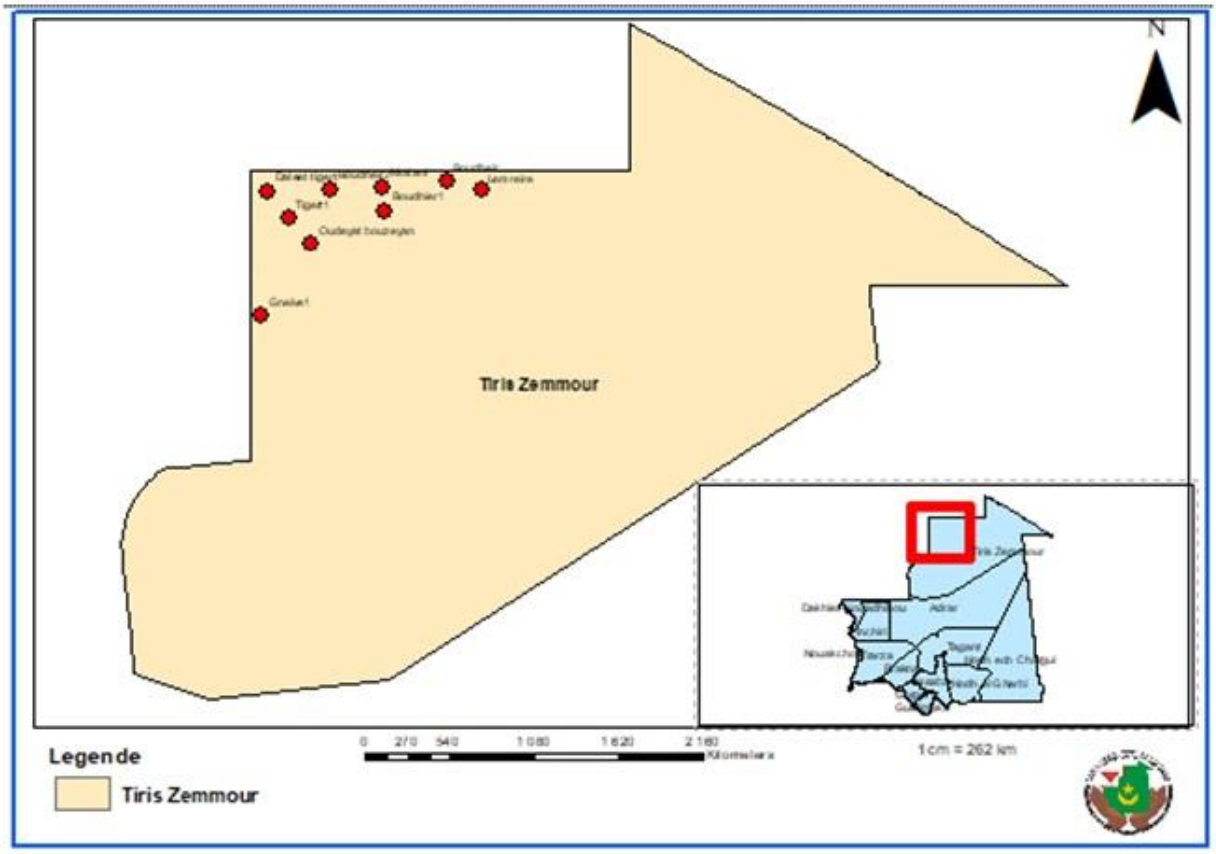
	Name of Area	NTS	Cleared (m²)	BLU63	MK118	M42	Year of completion
1	AYDIYATT	30,000	150,108		6		
2	AGHWACHIN	18,750	351,293	28			
3	DOUEIK	10,000	258,982			347	
4	OUDEYATT BOUZEYAN	10,000	312,624	21		23	
5	WINIGHET	22,500	106,595		1		
6	BIR MARIAM	53,600	169,400	48			
7	OUM DBEIATT	8,000	33,572	200			
8	TIGERT	175,000	305,212		91		
9	GHARET EL HEMAID	32,000	276,954		481		
10	GUNEIVE 1	392,998	392,998	24			
11	GUNEIVE 2	177,574	177,574	16			
Total			**2,535,312**	**337**	**579**	**370**	
Total CMs				**1,286**			

Table 1: Identified and cleared CHAs from 2012 to 2014

3. Newly identified contamination (2019 to date)

In 2019, a previously unknown contamination of Cluster Munitions (CMs) was discovered in Tiris Zemmour, a region in the northern part of the country. This contamination is situated in a remote area that borders Western Sahara. After the discovery, Non-Technical Surveys (NTS) were conducted, which led to the identification of nine Confirmed Hazardous Areas (CHA). These areas were reported and officially documented by the National Program for Demining and Humanitarian Development in 2019. The contamination of CMs in this region is attributed to the use of munitions such as MK118 and BLU-63 CM.

Map 1: Mauritania Administrative division



Map 2: Location of cluster munitions contaminated areas

In all of the nine identified areas, the presence of Cluster Munitions contamination has been visually confirmed through direct evidence of Explosive Ordnance (EO). As a result, these areas are categorized as Confirmed Hazardous Areas (CHA), indicating a significant risk of explosive hazards. The localization data of these areas have been recorded and stored in the information management system of the PNDHD. However, in order to determine the precise size of these areas, further technical survey work is required. It is possible that during the course of these surveys, followed by clearance operations, some areas may undergo size reduction as the extent of contamination becomes clearer. Detailed information regarding these areas is available at the PNDHD level and can be obtained upon request.

#	Name of Area	Square meter	Type of Contamination	Location	Status
1	Boudheir	20,556	Blu63	Tiris Zemour	CHA
2	Boudheir1	38,667	Blu63	Tiris Zemour	CHA
3	Boudheir2	243,147	Blu63	TirisZemour	CHA
4	Dalettigert	345,703	MK118	Tiris Zemour	CHA
5	Gneive	4,683,196	Blu63	Tiris Zemour	CHA
6	Lemriere	2,587,276	Blu63	Tiris Zemour	CHA
7	Motlani	120,365	Blu63	Tiris Zemour	CHA
8	Oudeyat Lekhyame	5,326,856	MK118	Tiris Zemour	CHA
9	Tigert	651,830	MK118	Tiris Zemour	CHA
	Total m²	**14,017,596**			

Table 2: Recently identified CHAs[1]

4. Proposed Work Plan

Mauritania is requesting an extension period of two years in order to complete clearance of the newly identified confirmed hazardous areas.

To fulfil the obligations of the Government of Mauritania under the Convention on Cluster Munitions (CCM), the PNDHD will undertake a range of activities. These activities encompass clearance operations, non-technical survey (NTS), risk education, and marking.

The clearance operations will involve systematic and methodical removal of explosive remnants of war, including cluster munitions, from affected areas. This activity aims to mitigate the threat posed by these hazardous remnants and restore safety to the impacted regions.

The non-technical survey (NTS) will be conducted to assess and gather crucial information about the presence, extent, and nature of contamination. By employing a systematic approach, NTS enables targeted and efficient allocation of resources for subsequent clearance efforts.

Risk education will play a vital role in raising awareness among local communities and humanitarian actors about the dangers associated with explosive remnants, including cluster munitions. This educational component seeks to empower individuals to recognize, avoid, and report potential risks, thereby reducing the likelihood of accidents and injuries.

[1] A website has been developed by PNDHD that contains more information about the location and details of these hazardous areas identified.

Marking contaminated areas with appropriate signage and indicators will be implemented to ensure their identification and avoidance. This marking activity serves as a visual reminder for both the local population and humanitarian workers to steer clear of these hazardous zones, contributing to their safety and well-being.

Through the implementation of these multifaceted activities, the PNDHD aims to achieve the Government of Mauritania's obligations under the CCM. These efforts underscore the commitment to promoting human security, safeguarding lives, and creating an environment free from the threat of cluster munitions, in alignment with the provisions of the international convention.

CLEARANCE

According to estimates, an initial mobilization period of six months is anticipated to complete the necessary preparations. These preparations involve securing funding, assembling a skilled workforce, acquiring essential equipment, and allocating other required resources for the deployment of four (4) Battlefield Area Clearance (BAC) teams to address the remaining contamination. The composition of each BAC (Battle Area Clearance) team includes five members, consisting of four deminers who possess a minimum EOD1 capacity, and one team leader who holds either an EOD2 or EOD3 qualification. All deminers are affiliated with the PNDHD and have previous experience in the military Engineer Corps. If the need arises for additional personnel and sufficient funds are available, the PNDHD has the capability to request extra deminers from the military engineer corps, thereby allowing for a maximum management of seven (7) clearance teams. Operators can implement all humanitarian demining activities but priority will be given to the PNDHD and national deminers.

Once these four teams have been deployed, if the estimated amount of contamination remains the same, it will be possible to complete additional technical survey and clearance of the areas identified over the course of approximately 18 months . Implementation of activities will depend on the availability of fund to perform demining. An additional six-month timeframe will be allocated for the purpose of addressing any additional contamination that may be encountered during the demining process. This period will also be utilized for the finalization of reporting and documentation of the clearance activities, prior to the submission of the final completion report.

As the demining teams are formally affiliated with the Engineer Corps, the knowledge they acquire during ongoing operations with the PNDHDwill greatly contribute to the effective management of future residual risks related to cluster munitions. This expertise will enable them to identify, handle, and mitigate potential risks associated with the presence of unexploded cluster munitions in the area.
By leveraging their experience, the demining teams can employ best practices and implement appropriate measures to ensure the safety of the communities and minimize the long-term impact of residual risks. Their familiarity with the characteristics and behavior of cluster munitions will enable them to develop comprehensive risk management strategies.

Discussions on how residual risk from cluster munitions will be managed will be conducted in collaboration with relevant authorities and stakeholders during the extension period. By engaging all key stakeholders, including local communities, experts, and international organizations, comprehensive plans and strategies can be developed to address residual risks in a coordinated and effective manner. These efforts will prioritize the safety of the affected communities and support the long-term sustainable development of the region.

Below, a comprehensive working plan is provided, which outlines the estimated time required for each task/location identified. The calculations and estimations in the plan are based on informed assumptions derived from prior experience working in Mauritania.

In Mauritania, the clearance operations adhere to the Mauritanian Standards of Antimine Action (NMAM), which align with the International Mine Action Standards (IMAS) while being customized to suit the specific geographical and equipment-related conditions in Mauritania. The NMAMs were developed and endorsed by the National Program for Humanitarian Demining and Development (PNDHD) and subsequently presented to the Government for approval in 2007. These standards undergo regular annual updates, incorporating valuable insights gained from field experiences. The revisions aim to enhance the effectiveness and efficiency of clearance operations in Mauritania while maintaining compliance with international best practices outlined in the IMAS.

#	Name of Area	Square Meters	Type of Contamination	Location	Clearance Duration
1	Boudheir	20,556	Blu63	Tiris Zemour	4
2	Boudheir1	38,667	Blu63	Tiris Zemour	6
3	Boudheir2	243,147	Blu63	Tiris Zemour	24
4	Dalettigert	345,703	MK118	Tiris Zemour	34
5	Gneive	4,683,196	Blu63	Tiris Zemour	90
6	Lemriere	2,587,276	Blu63	Tiris Zemour	44
7	Motlani	120,365	Blu63	Tiris Zemour	13
8	Oudeyat Lekhyame	5,326,856	MK118	Tiris Zemour	100
9	Tigert	651,830	MK118	Tiris Zemour	60
	Total	**14,017,596**			**375**

Table 3: Estimated clearance timeframe by CHA

The calculations of the estimated timeframe above are based on the following assumptions:

- Numbers of teams: 4

- Number of personnel: 20
- Total working days per year = 265 days

Given the diverse ground conditions characterized by sandy and rocky terrain, coupled with varying contamination levels, it is challenging to provide an exact duration for the clearance process. The timeframe for clearance operations will depend on multiple factors, including the size and complexity of the contaminated areas, the available resources, and the effectiveness of the demining teams. Consequently, the clearance duration cannot be accurately determined due to these site-specific conditions. Additionally, the duration of clearance operations will heavily depend on the availability of funding. The workplan proposes conducting clearance operations throughout a significant portion of the extension period. During the final year of the extension, a buffer period will be allocated to address any potential residual contamination. This period allows for thorough assessment and clearance of any remaining areas of concern to ensure the safe and effective completion of the clearance operations.

RISK EDUCATION

Picture 1: A PNDHD Community Liaison team during a Risk Education session

Risk Education is an initiative to reduce the risk of civilian casualties caused by CM. It involves providing information to the public about the dangers of CM and instructing people on how to identify, avoid, and reduce the risk of being harmed by these weapons. Risk education campaigns are most effective when they are carried out in locations where CM have been used, as this increases awareness and understanding of the issue. It is also important to

ensure that the information provided is tailored to the age and level of understanding of the target audience, as this will help maximize the effectiveness of the campaign.

The PNDHD mobilizes its risk education teams to communities affected by the presence of cluster munitions. Each team consists of five (5) PNDHD personnel deployed at the community level. The training sessions are conducted in person, with a specific emphasis on school-aged children. Furthermore, community liaison officers provide training to local community focal points. This approach guarantees the continuity of message dissemination.

MARKING

Picture 2: A fixed marker indicating the presence of mines

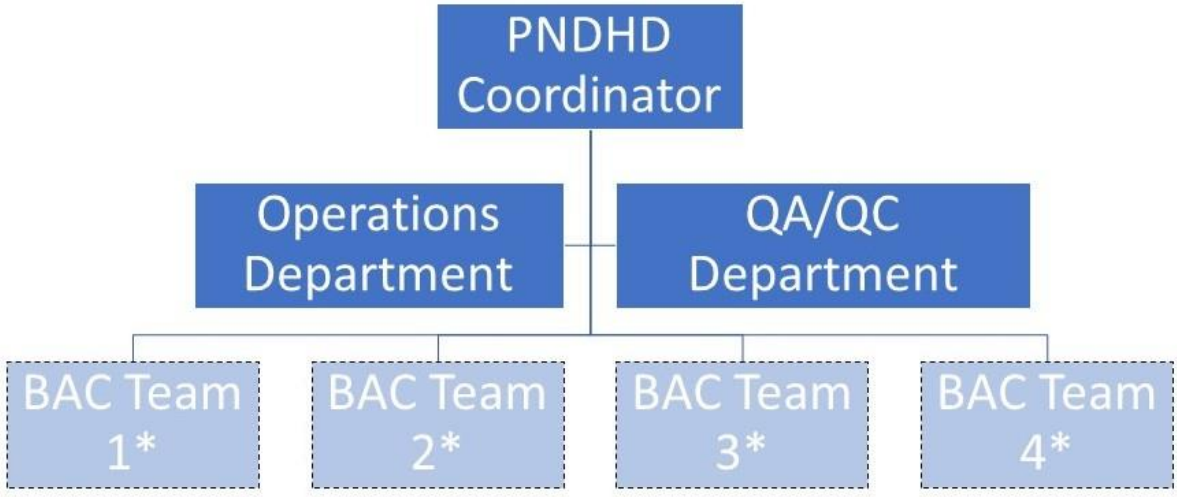
In the context of humanitarian mine action, the marking of areas contaminated with explosive remnants of war, particularly cluster munitions, plays a pivotal role in the overall clearance process. By clearly demarcating and signifying these contaminated zones, local communities and humanitarian personnel are alerted to their presence, enabling them to avoid inadvertent contact and potential harm caused by CM. This proactive measure is crucial for ensuring the safety and protection of individuals within the affected areas.

Moreover, the act of marking a zone as contaminated with CM serves as a valuable source of information for humanitarian organizations engaged in clearance efforts. It provides essential data that aids in assessing the extent and severity of contamination within the specific area.

This information further facilitates the strategic allocation of resources and determination of appropriate measures required to effectively and safely clear the contaminated zone of CM.

Consequently, the act of marking contaminated areas with CM serves as a critical component in the comprehensive and systematic approach to humanitarian mine action. It not only safeguards lives but also contributes to the overall success of clearance operations by providing vital intelligence for planning and executing demining activities in a targeted and efficient manner.

PNDHD ORGANIZATION CHART



*BAC teams to be mobilized in order to address newly identified contamination

5. Rationale and Resource Mobilization Plan:

Despite the challenging international circumstances in recent years and limited national funding availability, the Government of Mauritania has consistently allocated a yearly contribution to the National Program for Humanitarian Demining and Development (PNDHD). This financial support has enabled the PNDHD to carry out essential activities in alignment with the obligations stipulated by the Convention on Cluster Munitions (CCM).
Under the last extension, USD 250,000 were allocated to the PNDHD, providing crucial resources to fulfil its responsibilities. With this funding, the PNDHD has successfully conducted clearance operations in two specific areas known as Guneivé I and Guneivé II. The total area cleared encompasses 570,572 square meters.

The allocated budget has been instrumental in facilitating the clearance of these areas, ensuring the safe removal of cluster munitions and contributing to the overall implementation

of the CCM. Despite financial constraints, the commitment of the Mauritanian government to sustain this yearly contribution underscores its dedication to fulfilling obligations under the convention and promoting a secure environment for its population. In addition to the clearance operations carried out in Guneivé I and Guneivé II, the efforts were augmented by the implementation of risk education and marking operations.

The current extension request for mine action activities in Mauritania necessitates a total budget of approximately 1,965,000 USD. The National Program for Humanitarian Demining and Development (PNDHD) has allocated 200,000 USD (for the extension duration) from the national budget, leaving a remaining funding requirement of $1,765,000 USD to be secured from external sources.
However, it is important to note that the international community has not yet been able to provide the anticipated financial assistance of $1,765,000 USD as outlined in the previous extension request. This unfulfilled funding component pose challenges to the timely and comprehensive clearance of areas contaminated by cluster munitions.

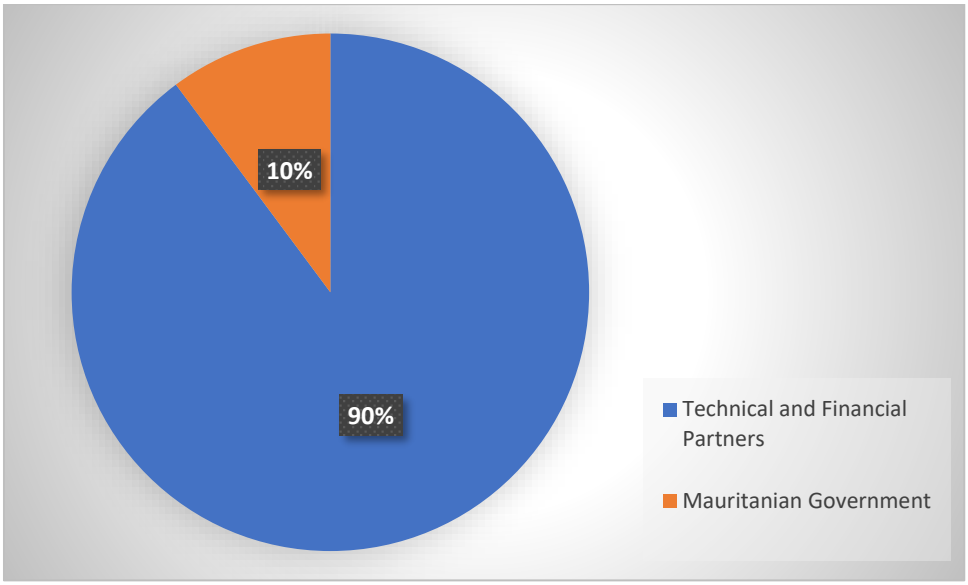


Chart 1: Allocation of funds for the extension request

Despite limited resources, Mauritania is committed to contributing financially and in-kind to its mine action program, displaying strong political will. The government, through the PNDHD, has provided clearance teams, expertise, work equipment, support vehicles, regional offices, victim assistance, and logistical support.

International Assistance requested

To complete the survey and clearance work of identified cluster munition (CM) sites within the specified timeframe, external funding of $1,765,000 USD is required. The government of Mauritania and the PNDHD seek assistance from the international mine action community to raise these funds. Mauritania plans to engage with previous supporters, including Norway,

Germany, UK, France, and Japan. Seeking international support, Mauritania proposes a Country Coalition involving the government, willing donor governments, and international mine action NGOs to aid in completing its obligations under the CCM. This collaborative initiative would harness expertise and resources for successful mine clearance and victim assistance. The Country Coalition model has been effective in other programs. Mauritania's efforts aim to ensure comprehensive completion of the mine action program, promoting safety and security for its population. Some PNDHD operators are already funded by foreign sources, contributing to global efforts in risk education, survey, and clearance activities. The For a comprehensive overview of the budget, please refer to the detailed breakdown provided below:

Line Item	2023	2024	2025	2026	Amount (USD)
Human Resources	***150,000***	***225,000***	***225,000***	***100,000***	***700,000***
PNDHD staff salaries & per Diem (incl. engineers)	150,000	225,000	225,000	100,000	700,000
Operations	***135,000***	***265,000***	***185,000***	***60,000***	***645,000***
Vehicles	40,000	70,000	70,000	30,000	210,000
Detectors and clearance material	40,000	65,000	15,000	0	120,000
Personal Protection Equipment & Uniforms	10,000	25,000	5,000	5,000	45,000
Camping & other field equipment	15,000	30,000	20,000	5,000	70,000
Risk Education (material & campaigns)	30,000	75,000	75,000	20,000	200,000
Support & Admin Costs	***100,000***	***150,000***	***150,000***	***70,000***	***470,000***
Operational Running Costs	100,000	150,000	150,000	70,000	470,000
Overhead Costs	***30,000***	***50,000***	***50,000***	***20,000***	***150,000***
TOTAL PROJECT COST	**415,000**	**690,000**	**610,000**	**250,000**	**1,965,000**
Mauritania Governmental Contribution	***50,000***	***50,000***	***50,000***	***50,000***	***200,000***
Total Resources to Mobilize from the International Community	**365,000**	**640,000**	**560,000**	**200,000**	**1,765,000**

Table 5: Extension request budget

Governmental Contribution

The government of Mauritania is committed to supporting the project by allocating several facilities and personnels. These staff members, primarily sourced from the Corps of Engineers, will receive a daily per-diem instead of a regular salary. Additionally, the Corps of Engineers will assist in the transportation of teams to remote areas by providing trucking services for fuel and water, especially in the far northern region of the country.

The dedicated personnel of the PNDHD will actively contribute to the project, ensuring its smooth implementation. They will be provided with office space and will undertake various responsibilities, including liaising with national, local governmental, and military officials.

Mauritania has initiated efforts to mobilize resources for its CM clearance program. These steps include the following:

- Mauritania, will present its request for extension in the future CCM Meetings, providing information on the gaps for implementation;
- Mauritania will continue outreach to international financial and technical partners and States parties in a position to provide assistance to support Mauritanian's CM clearance activities;
- Mauritania will reach out to partners with representation in Mauritania and invite them to participate in a briefing on Mauritania's humanitarian demining programme;
- Mauritania will regularly update the status of implementation through its national website and the convention's dedicated country page for transparency and accessibility of information.
- Mauritania will continue to provide updates on implementation at informal and formal meetings of the Convention as well through its Transparency Reports.

Contingency plan

Mauritania expresses confidence in meeting its obligations within the submitted extension period but acknowledges the need for alternative solutions if support from national authorities and foreign donors falls short. The option of requesting an additional extension remains open to ensure the successful completion of the country obligations under the CCM.

6. Justification of the Need for an Extended Timeframe

The PNDHD has received limited international financial support for the Convention on Cluster Munitions (CCM) activities. While Mauritania initially declared completion in 2014, previously unknown cluster munition (CM) contamination was discovered in the country's far north in 2019.
Significant time was dedicated in 2020 and 2021 to conduct the initial survey work and estimate the remaining contamination. The joint assessment mission conducted by the PNDHD and the Norwegian People's Aid (NPA) NGO to assess the newly discovered CM contamination was delayed due to the COVID-19 pandemic but eventually took place in March 2021.

To date, Mauritania is in need of international assistance to completely clear the CM contamination. Additional time will be required to mobilize support from the international mine action community for further technical surveys and clearance activities in the identified areas. Therefore, Mauritania anticipates that completing the clearance before the CCM deadline of August 1, 2024, will not be possible.

7. Further Residual Risk

Given the vast and sparsely populated deserts in northern Mauritania, it has always been recognized that additional previously unknown contamination may be discovered in the future. To effectively tackle the residual risk, comprehensive discussions will be conducted with all relevant stakeholders, including those currently or potentially involved. The aim is for the PNDHD to develop a sustainable plan that can be implemented after the completion of clearance operations. Through inclusive engagement, Mauritania seeks to foster collaboration and ensure the establishment of a robust and enduring framework for managing residual risk. Even after clearing the newly identified areas, there is a possibility of new, currently unknown areas of cluster munition (CM) contamination emerging in the future. The Corps of Engineers will handle future residual risks, and the PNDHD will continue to enhance the capacity of this national entity to address any further contamination that may arise after completing the current CM tasks.

Mauritania is committed to maintaining and strengthening its in-country capacity to manage residual risk. If previously unidentified CM-contaminated areas are identified after the proposed deadline, Mauritania will take prompt action to accurately assess the extent of contamination and safely dispose of all discovered CM in line with international and national standards. Additionally, Mauritania will fulfill its obligations under Article 7 of the Convention by reporting any newly identified contaminated areas and sharing relevant information with stakeholders and States parties through formal and informal channels.

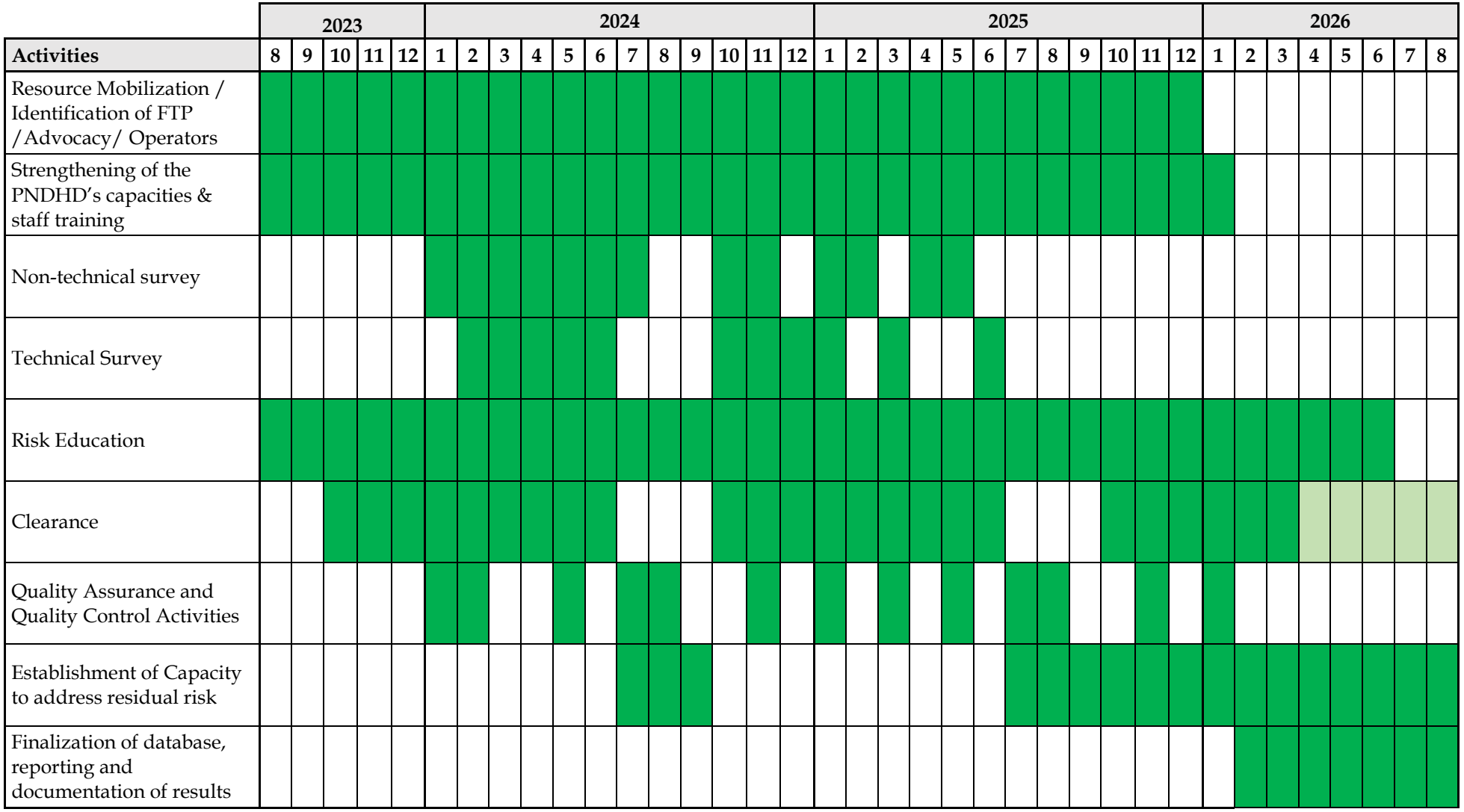
8. Humanitarian, social, economic and environmental implications of the proposed extension

The impact of cluster munition (CM) contamination in Mauritania is primarily observed through its social and economic consequences, resulting in restricted access to crucial community resources, such as pasture, and occasional livestock fatalities. The period from 2009 to 2022 witnessed a number of human accidents leading to injuries. Upon completion of the clearance process, released land is predominantly utilized for pasture by nomadic and semi-nomadic communities. Notably, Mauritania possesses substantial mineral deposits, which can be explored for development purposes following the successful clearance operations. Due to the low population density (0.22/sq mi) and the absence of permanent settlements in the Tiris Zemmour area, there is currently no immediate requirement for decontamination in relation to environmental pollution. In accordance with international standards, waste sweeping operations related to hazardous waste will be conducted following each clearance. The accomplished clearance operations have fostered an environment conducive to socio-economic advancement in the initially affected province. These achievements encompass enhanced freedom of movement for nomadic communities to access grazing areas, a significant reduction in accidents caused by contamination, and expanded opportunities for mining research.

Ensuring inclusivity, gender sensitivity, and diversity are integral considerations within the program in Mauritania. Engaging all segments of the population, including men, women, boys, and girls, will be sought during the design and implementation of all activities. Striving

for gender balance and diverse survey and battlefield area clearance (BAC) teams is a program objective, recognizing that attaining complete gender balance within the seconded staff from the Corps of Engineers might present certain limitations.

Action Plan 2023 - 2026



ANNEX 1

Pictures of Cluster Munitions from Identified Contaminated Areas in Tiris Zemmour

Picture 3: Boudheir :MoughtaadeBirOugrein

Picture 4: Matlani, :Moughataa de Bir Oumgrein

Picture 5: OudeyatLekhyame:Moughataa de BirOumgrein

Picture 6: Tigert: Moughataa de Bir Oumgrein

ANNEX 2

Battle Area Clearance (BAC) Methodology Summary

Introduction

Battle Area Clearance (BAC) is the term used to describe a systematic search of an area contaminated by Explosive Remnants of War (ERW). BAC assets are an important component in any mine action operation. To be fully effective, BAC resources should be carefully managed and controlled to ensure that they are properly employed and that clearance is able to proceed safely, efficiently and effectively.

Aim

This chapter covers the minimum requirements for the conduct of BAC procedures by the Mauritania clearance teams. The aim of all activities is to release land that is confirmed to be, or suspected to be contaminated by ERW.

General Procedures

In general BAC methods are not used in an area with a threat from landmines. However, with appropriate risk management procedures or confirmation of the threat by technical survey, BAC methods can be used in areas contaminated with high-metal content landmines only.

BAC can be conducted in any of the following three (3) applications as described below (Visual Search, Instrument Aided Visual Search, Shallow Search) individually or in combination, depending on perceived threat, risk assessment and PNDHD requirements.

Surface Search Method

Visual Search is conducted as an effective method to locate surface ERW within an area with given boundaries.

Instrument Aided Visual Search is conducted as an effective method to locate surface and partially buried ERW within an area with given boundaries where vegetation and ground conditions may prevent an efficient visual search only. This method shall be assisted by the use of metal detectors/ locators.

The above two surface search methods are carried out in the same manner with the exception that the second method is assisted with metal detectors/ locators.

Subsurface Search Method

Shallow Search is conducted as an effective method to locate sub-surface buried ERW to a specified depth, normally 13cm, within an area with given boundaries. This method requires the use of metal detectors/ locators.

Procedures Surface Search Methods

Prior to searching the area, the BAC team should conduct the set up and marking of the search boxes/ areas.

The searchers should line up across the base line facing the area to be searched with the Team Leader (TL) suitably located to allow good command and control of the team. The surface search method should be conducted as a visual search or as an instrument aided visual search enabling a non-intrusive search of vegetation and other obstacles.

The search line shall progress forward and cover the full width of the defined search area. The search shall progress in a systematic manner to ensure that all the area is covered. Each searcher shall search the ground to the left and right and in front of him, ensuring overlap with the adjacent searcher. When reaching the end of the search area/lane, the search party should repeat the search until the whole area has been completed.

Start point and end point, left and right, for the search party shall be marked using flags, coloured small bags or wooden pickets. They shall be used as a guide for the search party ensuring a clear definition on what area that has been searched within the designated search area/box. The marking will also aid the team ensuring that an appropriate overlap of a minimum of 1m is achieved throughout the search.

During the search, progressive marking may be used depending on the size of the search areas/ boxes, using the same marking material as for the start point. The search party should mark left-hand and right-right hand search perimeters. The marking should placed / inserted to the ground and be at a maximum every 15 m.

Any member of the search party, who identifies an ERW item and/or suspicious item, shall immediately stop, raise his hand and alert the remainder of the search party and the Team Leader. On hearing the alert the remaining searchers in the party shall stop and stand still.

After an assessment by the Team Leader, the ERW shall be suitably marked and recorded before continuing with the search.

The ERW may be marked using a tall marker, in case the area is widely contaminated, with tape attached to it. The marker will be placed at a minimum 30 cm away from the item and the ground checked with an instrument before inserting the marker.

Once an area has been searched and all ERW located has been marked, the search party can move onto the next BAC search box/area.

Except for search instructions and on the identification of an ERW by one of the search party, searching shall always be carried out in complete silence.

Any number of working parties may be employed on an area provided that appropriate command and control is in place, and a minimum safety distance of 25m is maintained between each search party depending on the threat.

All items that have been located, investigated and identified should be either destroyed in situ or if determined safe to do so, moved to a central demolition site (CDS) for disposal.

Areas of thick vegetation or rubble that require an intrusive search shall be marked off and addressed at a later stage with an appropriate search method.

Procedures Subsurface Search Methods

Shallow Search Method

Shallow Search is normally subsequent to a visual search however, there may be situations whereby a site may not be first subjected to a visual search but may go directly to a shallow search. This may be dependent on the perceived threat.

The method used to conduct a shallow search should depend upon the location of the task and the ERW threat, i.e. built up areas, cultivated areas or open ground. The method employed should ensure that each search/clearance lane and/or box is systematically searched and all readings are investigated.

Search boxes/areas may be subdivided into search lanes with ropes, pickets and/or tape depending on the type of metal detector/ locator to be used.

Searchers should operate in search parties as per surface search procedures or individually.

When operating as individuals, searchers should be assigned a box/ lane where he should carry out the instrument search. Each searcher should be responsible for the movement of the box/lane marking ropes.

The lane should be marked with two lines 1m apart to a maximum of 50m in length, depending on the terrain. The lanes should be searched using a designated instrument/locator. On the completion of each lane, the left hand line (if search direction is to the right) should be moved over the right hand line by 1m to create the new working lane.

On completion of each lane, the searcher should close the lane with two crossed red-topped pickets or two rocks to indicate the boundary between cleared and un-cleared areas.

If the detector/ locator gives no signal, the searcher should progress along the 1m lane at a slow walking pace until he reaches the end of the lane at which point he should search a 1m wide overlap parallel to the base line and insert a peg 1m from the last. He should then move the left hand rope over the right hand rope and attach it to the peg. He should return to the base line through the cleared lane and move the left hand rope over the right rope on to the next peg whereby creating a new search lane. This procedure should be repeated until the box has been completed.

If the detector gives a signal, the searcher should investigate the signal and carry out investigation drills as per the Mauritania SOP for Manual Demining and apply the appropriate level of PPE.

All searchers in adjacent boxes should work in the same direction across the search box to maintain safety distances. The Worksite Supervisor or the Team Leader shall ensure that the minimum safety distances are maintained at all times.

If an ERW is confirmed during the investigation drill, it shall be marked in accordance with NPA procedures. The searcher should report the find to the Team Leader, who should confirm the type of ERW and ensure that the appropriate action is taken.

All items located, investigated and identified as ERW should either be destroyed in situ or if determined safe to do so, moved to a central demolition site (CDS) for disposal.

Investigating a Contact During BAC Search Methods

To investigate a reading/signal, a searcher equipped with a handheld detector (sensitivity set according to target) shall pinpoint the signal and investigate the indications. A minimum safety distance to other personnel should be applied based on the perceived threat.

In general, when unexploded munitions are encountered during BAC search operations, they have already malfunctioned and usually have a high metal content, on or near the surface and constitute less of a hazard than mines. A thorough risk assessment shall be made by the Operations Manager or Worksite Supervisor on what type of explosive ordnance could be encountered when investigating indications.

If the source of the signal is an item of ERW, then the searcher shall inform the Team Leader who shall assess the finding and take appropriate measures depending on the type of item located.