CONVENTION ON THE PROHIBITION OF THE USE, STOCKPILING, PRODUCTION AND TRANSFER OF ANTI-PERSONNEL MINES AND ON THEIR DESTRUCTION

STATE PARTY: **REPUBLIC OF RWANDA**

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A. National implementation measures

Article 7.1 "Each state Party shall report to the Secretary General .....on:
a) The National implementation measures referred to in Article 9."

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **APRIL 2005** to **APRIL 2006**

Measure	Supplementary information (e.g., effective date of implementation & text of legislation attached).
1. *Presidential Order of 24 December 1998 confirms that all international treaties and conventions, ratified by the Government of Rwanda, are integral part of the domestic law. This is also confirmed by Rwandan Constitution. So is the Mine Ban treaty.* 2. *Existing law-"Decret-Loi no 12/79 relatif au Régime des Armes à feu et de leurs Munitions" prohibits illegal importation, use, transfer and possession of arms and ammunitions including Mines.* 3. *In order to address the requirements of the article 9 to the Ottawa convention, efforts to enact a legislation and administrative measures are underway; now a bill on this is in the Cabinet for approval.*	

Form B **Stockpiled anti-personnel mines**

Article 7.1 "Each State Party shall report to the Secretary General .....on:

b) The total of all stockpiled anti-personnel mines owned or possessed by it, or under its jurisdiction or control to include a breakdown of the type, quantity and, if possible lot numbers of each type of anti-personnel mine stockpiled."

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **April 2005** to **April 2006**

Type	Quantity	Lot # (if possible)	Supplementary information
N/A	*N/A*	*N/A*	*The former regime that carried out Genocide in Rwanda in 1994, after being defeated, fled into neighboring Congo with all Arms and Ammunitions including antipersonnel mines* *The post genocide Rwanda government has never imported antipersonnel mines, and therefore no stockpiled antipersonnel mines in Rwanda. Stocks of before 1994 having been taken by the former Government Forces.*
-	-	-	
TOTAL	*Nil*		

NB: N/A means "not applicable"

Form C **Location of mined areas**

Article 7.1 "Each State party shall report to the Secretary General ..... on:

c) To the extent possible, the location of all mined areas that contain, or are suspected to contain, anti-personnel mines under its jurisdiction or control, to include as much detail as possible regarding the type and quantity of each type of anti-personnel mine in each mined area and when they were emplace."

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **APRIL 2005** to **APRIL 2006**

1. Area that contain mines *

Location (Province)	Type	Quantity	Date of emplacement	Supplementary information
1. *North Province (Mutobo area, Buhanga area, Bungwe area,Kiyombe area, Kabira area, Gasiza area)* 2. *Western Province (Rubaya area and Nyabihu area)* 3. *Kigali Province(Jali area and Kanombe area)* 4. *In other Province, there are no minefields that have been identified.*	*Ref to annexes A & B (Mines &UXOS found in Rwanda).*	*The quantities in each minefield not known.*	*1990-1994 & 1997-1998*	*No new mines were laid on the territory of Rwanda since 1998.*

Form D **APMs retained or transferred**

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **April 2005** to **April 2006**

1. Retained for training in (Article 3, para.1)

Institute authorized by State Party	Type	Quantity	Lot # (if possible)	Supplementary information
The National demining office.	*PMD-6*	*32 Pieces*	-	
	TS 50	*26 Pieces*	-	
	M 35	*43 Pieces*	-	
TOTAL		***101 Pieces***	-.	*These mines were uprooted from minefields and retained for training purposes. This number has not changed since the last reporting period because there has been no training on demining activities.*

2. Transferred for development of and training in (Article 3, para.1)

Institution authorized for by State Party	Type	Quantity	Lot # (if possible)	Supplementary information e.g. transferred from, transferred to
	NIL	NIL		N/A
TOTAL	NIL	NIL		NIL

Form E **Status of programs for conversion or de-commissioning of APM production facilities**

Article 7.1 "Each State Party shall report to the Secretary General ..... on:
e) The status of program for the conversion or de-commissioning of anti-personnel mine production facilities."

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **April 2005** to **April 2006.**

Indicate if to "convert" or "decommission"	Status (indicate if "in process" or "completed")	Supplementary information
N/A	**N/A**	*The production of antipersonnel mines never took place in the Republic of Rwanda and thus, there are no mine production facilities.*

Form F **Status of programs for destruction of APMs**

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **APRIL 2005** to **APRIL 2006**

1. Status of programs for destruction of stockpiled APMs (Article 4)

Description of the status of programs including:	
Location of destruction sites	Details of:
N/A	Methods
N/A	Applicable environmental standards
N/A	

Status of programs for destruction of APMs in mined areas (Article 5)

Description of the status of program including:	
Location of destruction sites	Details of:
Mines that are found during de-mining operations are destroyed "in SITU" and this is in accordance with the international mine action standards (IMAS).	*Methods: Explosive charge Placement with Electric or non-electric firing system. Burning by use of incendiary grenades has also been used.*
	Applicable safety standards:, standards operating procedures
	Applicable environment standards: National Environment legislations.

Form G **APMs destroyed after entry into force**

Article 7.1 "Each State Party shall report to the Secretary General ….on:

g) The type and quantities of all anti-personnel mines destroyed after the entry into force of this Convention for State Party, to include a breakdown of the quantity of each type of anti-personnel mine destroyed in accordance with Article 4 and 5, respectively, along with, if possible the lot number of each type anti-personnel mine in the case of destruction in accordance with Article 4".

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **April 2005** to **April 2006**

1. Destruction of stockpiled APMs (Article 4)

Type	Quantity	Lot # (if possible)	Supplementary information
N/A	*N/A*	-	N/A
		-	N/A
TOTAL	*Nil*		

2. Destruction of APMs in mined areas (article 5)

Type	Quantity	Supplementary information
See Annex B	*See Annex A & B*	• *Most targets demolished are Mines, and or UXOS.*
TOTAL		

Form H **technical characteristics of each type produce/owned or possessed.**

Article 7.1 "Each State Party shall report to the Secretary General ….. on:

h) The technical characteristics of each type of anti-personnel produced, to the extent known, and those currently owned or possessed by a State Party, giving, where reasonably possible, such categories of information as may facilitate identification and clearance of anti-personnel mine; at a minimum, this information shall include the dimensions, fusing, explosive content, metallic content, color photographs and other information which may facilitate mine clearance"

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **April 2005** to **April 2006**

1. Technical characteristics of each APM-type produced.

Type	Dimension	Fusing explosive content		Metallic Content	Color photo Attached	Supplementary information to facilitate mine clearance.
		Type	Grams			
N/A	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

2. Technical characteristics of each APM-type produced.

Type	Dimension	Fusing	Fusing explosive content		Metallic Content	Color photo Attached	Supplementary information to facilitate mine clearance.
			Type	Grams			
N/A	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Form I **Measures to provide warning to the population**

Article 7.1 "Each State Party shall report to the Secretary General ....on:

i) The measures taken to provide an immediate and effective warning to the population in relation to all areas identified under paragraph 2 of Article 5."

Remark: In accordance with Article 5, para.2: "Each State Party shall make every effort to identify all areas under its jurisdiction or control in which A/personnel mines are known or suspected to be emplaced and shall insure as soon as possible that all anti-personnel mines in the mined areas under its jurisdiction or control are perimeter marked, monitored, and protected by fencing or other means, to ensure the effective exclusion of civilians, until all anti-personnel mines contained there in have been destroyed. The marking shall at least be to the standards set out in the Protocol on Prohibitions or Restrictions on the Use of Mines, booby-Traps and Other Devices, as amended on 3 May 1996,annexed to the Convention on Prohibition or Restrictions on the use of Certain Conventional Weapons Which May Be Deemed to be Excessively Injurious or Have Indiscriminate Effects".

State [Party]: **REPUBLIC OF RWANDA** reporting for time period from **April 2005** to **April 2006**

[Narrative]:

The National De-mining Office carries out De-mining operations as per international Mine Action Standards. Mined areas are clearly defined and all personnel are made aware of the marking procedures. Mine awareness campaigns are conducted by regularly broadcasting over the Radio, Television, and Publications in newspapers, lectures and distribution of education materials. All minefields marking stakes are to be painted red and a Red tape is put on the danger side. All minefields marking stakes are to be connected with either marking tapes or strings. All access routes and clearance lanes are carefully checked using mine detectors. The minefield control points (MCP) will be not closer than 100 meters from a known or suspected mined area.

Form J **ADDITIONAL INFORMATION**

State Party: Rwanda ***Reporting Time Period: From April 2005 to April 2006***

Rwanda's mine action program capability has currently deteriorated following the closure of the demining financial support. This has left the NDO with no options but only to react to on call hasty reports while big mine fields remain untouched. The remaining mine fields are extremely challenging (heavily vegetated and on steep slopes) and require additional resources currently unavailable to the NDO.

All the mine detection dogs have been retired due to age.

Absence of mine risk education has resulted to a renewed rise of causality figures.

Yet with all the above challenges, about 900,000 square meters of good agricultural land remain contaminated with mines and UXOs. Due to deteriorating operational capacities, scant resources to cover mounting operating expenses, clearing the remaining minefields may go beyond Rwanda clearance dead line of 2009. Rwanda has the potential to become one of the first countries in Africa to declare itself mine-safe if provided with assistance. The indigenous capability is there and requires an assistance financially to complete the remaining minefields.

Rwanda requires resources in terms mechanical assets, MDDS, new mine detectors, new vehicles as troop carriers, communication equipments, operational running costs to mention but a few .These resources would allow the NDO to clear the remaining minefield in the agreed time line.

MINES AND UXO's CLEARED FROM APRIL 2005- APRIL 2006

Areas	April	May	June	July	August	September	October	November	December	6-Jan	February	March	April	Total
Kigali T &R	21	35	4	7	4	34	23	42	1	0	0	0	0	**171**
North Province	0	0	0	0	0	0	28	69	0	0	0	0	0	**97**
East Province	0	0	0	0	0	156	130	0	0	0	36	10	0	**332**
West Province	0	0	0	4	11	0	41	57	0	0	0	0	0	**113**
South Province	10	0	0	0	0	0	0	0	0	1	0	0	0	**11**
Total	**31**	**35**	**4**	**11**	**15**	**190**	**222**	**168**	**1**	**1**	**36**	**10**	**0**	**724**

Annex A

ARMED MINES CLEARED IN RWANDA TO DATE

Type	Total
Shrapnel A/P mines	79
T.S 50	784
M-14	1
M-19	1
PRB M-5	5
A/T TM 57	123
A/T BLAST	6
PMD-6	33
TM-62	6
A/T M 47	27
POMZ 2	7
AP BU-6	1
PMN	3
A/P 5 MI DV 59	4
MK 2	6
IMPROVISED EXPLOSIVES	42
Mine, AP/409	6
FLAGMENTATION MINES	6
Mine,AP/NB 41	1
A/T Mine TMPN-6	1
A/T Mine 54-02	1
A/T Mine M 60	1
A/T Mine 35	3
TOTAL	1147

Annex B

THE REPUBLIC OF RWANDA

NATIONAL DEMINING OFFICE.

REPORT ON TRANSPARANCY MEASURES ON LANDMINES, ANTI-PERSONNEL MINES AND UNEXPLODED ORDNANCE (UXOs)

Reference is made to Article 7 of the Landmines monitor report 2004.

1. Section a) requires to specify the implementation measures. The Rwandan National Demining Office (RNDO) continued to build capacity through training. It also continued to carry out mine clearance in the Western Region of Rwanda in the District of Nyabihu. In addition, it responded to all reported UXOs throughout the country.

2. Section b) requires a report of all stock piles of A/P mines. Rwanda has no such stock piles.

3. Section c) requires a report on all mined areas and to include details on type and quantity of A/P mines in each mined area and when they were emplaced. The mined areas were mined mainly during 1990-1994 war. No details on type and time when the A/P mines were planted was available at the time of the fall of the genocidal regime in 1994. However the areas that remain mined include five places in the Northern Province namely; Buhanga, Bungwe, Kiyombe, Kabira and Gasiza. Two places in the Western Province namely; Rubaya and Nyabihu, two places in the central province namely; Jali and Kanombe.

4. Section d) requires types, quantities, lot numbers of all A/P mines retained or transferred for the development of and training. Rwanda has no such stocks.

5. Section e) requires status of programs for the conversion of de-commissioning of A/P production facilities. Rwanda has none of those facilities.

6. Section f) requires a series of programs for the destruction of A/P mines in accordance with Article 4 and 5, including details of the methods which will be used in destruction, the location site and the applicable safety and environmental standards to be observed.

   Attached is a copy of the Standard Operating Procedures employed by the RNDO. The A/P mines not destroyed at the mined site are transferred to the RNDO facility for destruction.

7. Section g) requires type and quantities of all A/P mines destroyed. No lot numbers were available:

1. Shrapnel	79
2. TS – 50	784
3. TS – 14	1
4. M – 19	1
5. PRB M – 5	5
6. A/P TM 57	123
7. A/T Blast	6
8. PMD – 6	33
9. TM 62	6
10. A/P M47	27
11. POM2 – 2	7
12. A/P BU6	1
13. PMN	3
14. A/P 5M1DV59	4
15. MK2 (45)	6
16. Booby trap & Furgas	42
17. A/P M 409	6
18. Fragmentation mines	6
19. A/P M AP/NB 41	1
20. A/P M TMPN-6	1
21. A/P M 54-02	1
22. A/P M 60	1
23. A/P M 35	3

This gives a total of 1153. Mines reported by UNAMIR in 1994 were 134, giving a grand total of 1234. Thetotal number of UXOs destroyed to date is 31,089.

8. Section h) requires technical characteristics of each type of A/P mine produced and those currently owned / possessed by the State. Rwanda neither produces nor holds such stocks.

9. Section i) requires measures taken to provide immediate and effective warning to the population in relation to all areas identified. The Rwanda National De-mining Office (RNDO) has surveyed all areas mentioned in (3) above and marked them. The local population is fully sensitized on the boundaries of the mined areas. Regular warnings on National Radio to the population on the dangers of mines are transmit.

STANDARD OPERATING PROCEDURES
NOVEMBER 2000

MINEFIELD CLEARANCE OPERATIONS: There is no *Safe* way to clear minefields. The procedures below are provided in an effort to reduce risk as much as possible however, and to give consideration to the proper and safest conduct of demining operations within the Rwandan Demining Organization during the conduct of minefield clearance operations.

Minefield Clearance sites should incorporate the use of the following features:

Vehicle Parking Area
Rest-Safe Area
Access Lane
Start-Safe Lane
Clearance Lane
Vegetation Accumulation Area
Metal Accumulation Area
Detector Test Area
Medic Area

Other features that may be included as dictated by conditions in the field are:

Perimeter Lane
Field Explosive Storage Area

Minefield Discipline: Demining Personnel should practice good minefield discipline during the conduct of demining operations. This includes the following:

- Any time deminers or dog handlers are working in a minefield the Team Leader, or a designated Safety Observer, should be positioned so that he can watch the work being conducted.
- Never duck under or step over a minefield barrier ribbon.
- Do not enter the *unknown* area.
- Keep all lanes clear. Place tools on the edges – not in the middle of lanes.
- Practice accident extraction procedures periodically and whenever work is started on a new site.
- Never conduct demining operations without a Medic, Communications and a Medical Evacuation Vehicle on site.
- Ensure all personnel on the team know the route to the hospital or supporting medical clinic.
- Ensure the emergency evacuation vehicle is parked facing out and, is not blocked by other vehicles and the keys are controlled.
- Wear personal protective equipment (PPE). Keep visors down and/or goggles on when working in the minefield. Minimum PPE should be a helmet with visor or goggles and a vest with groin protector.

- Never drive a stake into the ground until the area has been checked with a detector, or MDD.
- Always clear an area outside the lane being marked. With MDD's this should be ½ meter, with manual demining techniques, it should be at least the width of one detector head. This will provide a safety, "buffer" zone outside the lane in the event the mine line begins to stretch in the wind, or in the event someone inadvertantly steps outside the staked area.

Vehicle Parking Area: A Vehicle parking area should be identified. The UN International Standards specify that this area shall be no closer than 100 meters from the minefield. Due to topography, terrain features and other considerations in Rwanda however, on scene authority may reduce this distance as is appropriate for given conditions. Vehicles shall not be parked closer than 25 meters from the minefield however. One vehicle, designated as an emergency response vehicle, shall be parked facing away from the demining operation, and not blocked in any way from making a speedy exit in the event that medical evacuation of a minefield accident victim is necessary.

Driver's for the emergency vehicle should be specified in advance and all driver's should be made aware of the route to the supporting or nearest medical facility.

Rest-Safe Area: A Rest/Safe area should be established near enough to the minefield to support the clearance operation. It provides an area for personnel not currently engaged in the operation to rest, and yet be close enough to render relief and aid as needed. This area should be no closer than 25 meters from the minefield. This distance should be extended as the mine threat dictates, but should not be reduced without careful consideration of the need for reduction and the possible consequences.

The site chosen for the Rest-Safe area should be in an area believed to be clear of mines and UXO. It should be checked, preferably with two dogs, in accordance with MDD clearance procedures. Two MDD's should suffice, however if there are any doubts as to the safety of the area, a manual deminer should check after the dogs.

The area should be large enough to allow for the field storage of minefield clearance materials such as detector carrying cases, stakes, ribbon and line, and tools not currently being used. It should also provide room for deminers not currently working, to rest without being crowded.

The Rest-Safe area should be kept orderly and uncluttered. Tools and materials should not be left lying about where they can cause a trip hazard. Additionally, an area should be designated and kept clear where the Medic can receive and treat a mine accident victim in the event it becomes necessary.

The Rest-Safe area should be marked off with stakes, 1.5-meter's in length with red tops. They should be driven into the ground at 4 to 5-meter intervals and connected with white cloth, yellow plastic, or other suitable minefield tape. If green parachute cord is used it should be flagged periodically with ribbons of orange surveyors tape.

The area outside the Rest-Safe area will be considered an *unknown* area. Deminers should not go into the unknown area during minefield clearance operations except in extenuating circumstances.

Detector Test Area: A small portion of the Rest-Safe area should be set aside for checking mine detectors. This area, at least 1m x 1m, should be metal free. A hole in the ground should be formed into which the F1A4 Test Piece can be placed, metal end down. After the F1A4 detector has been set up and is operating, it can be passed over the test piece placed in this hole. The signal produced will give an indication that the detector is able to detect a "minimum metal content mine such as the Type 72a AP mine" at 15cm depth in the same terrain as the minefield being cleared. After this test, the operator should take the test piece with him. The man operating the detector should have the test piece with him or in his tool bag while working in the minefield.

Medic Area: The team Medic may also be positioned in the Rest-Safe area. The UN International Standards specify that the Medic be located no closer than 100 meters from the minefield. Conditions in Rwanda however, such as terraces, steep, mountainous terrain, thick vegetation and the predominance of TS-50 AP mines, may often times dictate that the Medic be placed closer than 100 meters in order to render prompt medical aid should an accident occur. Anytime POMZ's or other fragmenting mines with a lethal or harmful radius greater than 25 meters area expected, the distance between the Rest-Safe area and the minefield should be increased.

Access Lane: An Access lane should be established from the Rest/Safe area to the minefield. This lane should be cleared, preferably with two dogs (MDD's) in accordance with MDD clearance procedures. Two MDD's should suffice, however if there is any doubt as to the safety of the lane, it may be followed with a manual deminer after the dogs.

This lane should be at least 2-meters wide, as terrain and vegetation permit, in order to provide optimum room for the transit of personnel to and from the Safe-Rest area and the Minefield.

The Access Lane should be bounded on either side with stakes, 1.5-meter's in length with red tops. They should be driven into the ground at 4 to 5-meter intervals and connected with white cloth, yellow plastic, or other suitable minefield tape. If green parachute cord is used it should be flagged periodically with short ribbons of orange surveyors tape.

The area outside the Access Lane will be considered an *unknown* area. Deminers should not go into the unknown area during minefield clearance operations except in extenuating circumstances.

The Access Lane should open to the Start-Safe lane.

Start-Safe Lane: A Start-Safe lane should be established along one edge of the minefield. This is the lane from which the clearance lanes will begin. This lane should be a minimum of 2-meter's in width. The side towards the minefield will be the start line. The side away from the minefield will serve as a barrier between the Start-Safe lane and the *unknown* area. Deminers should not go into the unknown area during minefield clearance operations except in extenuating circumstances.

The Start-Safe lane should be bounded on either side with stakes, 1.5-meter's in length with red tops. They should be driven into the ground at 4 to 5-meter intervals and connected with white cloth, yellow plastic, or other suitable minefield tape. If green parachute cord is used it should be flagged periodically with short ribbons of orange surveyors tape.

The Start-Safe lane should be closed on the end.

Clearance Lane: Clearance lanes shall start at the start line and will be 1-meter wide. The width will be controlled with the use of Base Sticks. If two clearance lanes are being worked in the same minefield they must be a minimum of 25-meters apart. 30-meters is preferred as it allows for starting another lane one either side without violating the 25-meter minimum requirement. This may be necessary if one lane is finished before the other, or if a lane must be closed due to locating a mine or item of UXO.

The Clearance Lanes should be established as follows:

Two 1.5-meter stakes should be driven into the ground on the start line, 1-meter apart, using the base sticks to measure the width. The location of the lane shall be decided by the Team Leader.

The start line ribbon should be cut, half way between the two stakes and the ends tied to their respective stakes.

The base sticks shall be placed on the ground on the minefield side of the two stakes.

The deminer should place the ground cloth on the ground just behind the base sticks. He can then kneel on the ground cloth and also use it to carry small amounts of vegetation, dirt or metal out of the lane to the accumulation area.

He should visually examine the ground in front of the base sticks, looking for trip-wires and visual signs of mines or UXO. The extent of his examination should extend a comfortable arms length in front of the base sticks.

If nothing is detected visually, the deminer should examine the ground by hand, as determined necessary by the Team Leader. He should cut and remove vegetation as necessary to allow checking with the mine detector.

If the vegetation consists of thick brush, tall grass, reeds or bamboo, the deminer should cut the vegetation in ½ to 1-meter increments starting high and working toward the ground. He should continually check for trip wires and signs of mines or UXO.

The ground cloth need not be used in this case until the vegetation is cleared to the ground level. The depth of penetration into the vegetation should not exceed beyond what can be covered with the base sticks (a comfortable arms length) once the ground level is reached. (About ½ meter)

The deminer should cut horizontal vegetation vertically, and beyond the ends of the base sticks approximately one detector head width. He should take care not to pull vegetation that extends into the uncleared area outside the lane. Such vegetation could be entangled with trip wires, mines or UXO.

If nothing is detected by hand, the deminer will place one of the base sticks out into The minefield a comfortable arms length distance, but not to exceed the area checked visually and by touch.

The deminer should then check the area between the base sticks with the mine detector. When sweeping, the deminer should ensure the detector head overlaps one head width before the first stick, beyond both ends, and beyond the far stick.

If a contact is detected, the deminer should pin point is as near as possible, and then, without taking his eyes off the point, place a mine bonnet on the ground with the center of the "X" approximately 10-centimeters on the safe side of the contact.

The deminer should then set the detector aside, ensuring that it is not cluttering the lane. He can then select tools, and investigate the contact.

If a mine is located, it should be marked with a red pin flag, placed in the ground, approximately 10-centimeters on the safe side of the mine. The lane should then be closed until the mine is destroyed or removed.

If the contact is negative, the deminer may resume the process by advancing the rear base stick up to the front base stick and repeating the process.

At the end of the work day, the stopping point in each lane should be marked with a yellow pin flag, placed in the middle of the lane.

Vegetation Accumulation Area: In areas where vegetation is very thick, an area should be established for its accumulation. This area should be across the safe lane from the clearance lane and should be cleared prior to use. It may be cleared using MDD's or manual techniques just as the access and start-safe lane.

It should be marked the same as the access lane and the start-safe lane, driving 1.5-meter stakes into the ground and connecting them with the same type of minefield barrier ribbon. The size of the vegetation accumulation area will be dictated by the quantity of vegetation expected. In some cases multiple vegetation accumulation areas will need to be established.

Metal Accumulation Area: An area should be established for the accumulation of metal fragments and scrap. This can be a corner of the vegetation accumulation area.

Other Areas and Site Layout Features:

Perimeter Lane: In some cases it may be desirable to establish a perimeter lane around the minefield. This may serve as a warning to local inhabitants and keep them away. If a perimeter is to be established, it should be done so in the same manner as the access lane using two MDD's or manual demining techniques. The perimeter should be a minimum of one-meter in width

The marking of the perimeter should be the same as the start line, driving 1.5-meter stakes into the ground at 4 to 5-meter intervals and connecting them with minefield barrier ribbon.

Explosive Storage Area: If explosives are brought to the field during minefield clearance operations, they should be stored in a designated location that can be observed by the team. All team members should be aware of where it is and it should be marked as appropriate.

MDD's USED WITH THIS MARKING SYSTEM: If vegetation permits, it is normal practice in Rwanda, to use two dogs to clear an area, with manual demining techniques as a follow-up.

If this is the case, it is advised that a dog also be used to check the lanes between manual deminers during change over.

If thick vegetation dictates that manual demining techniques are the first clearance method employed, an MDD *must* be used between manual deminers during change over.

When MDD's are used to clear safe-rest areas, access lanes, start-safe lanes and clearance lanes, they should clear a minimum of ½ meter outside the area of the lane that will be staked and bounded with mine ribbon or mine line.

It is important that the Dog Handler mark the point where he started his search on the start line, and where he stopped.

EMERGENCY EXTRACTION: Accidents are always a possibility during the conduct of minefield clearance operations. Good work habits, conducted in accordance with a good SOP will promote safety, but will never completely eliminate this threat. Proper, prompt procedures in response to such an accident will be critical to the survival of a victim. In view of this, demining organizations should practice emergency extracation procedures on a periodic basis to ensure that all personnel involved know what to do and are capable of the correct response.

When an Accident Occurs: All activity on the site must stop. Personnel working in the field should immediately stop what they are doing, leave the field and go to the Rest-Safe area. Those personnel in the rest area, or otherwise not currently engaged in other activities should get on their feet, give their attention to the Team Leader and be prepared to provide assistance as he requires.

The Team Leader should immediately determine the location and condition of his team members and then do three things:

1. Immediately direct one man to the accident site with a mine detector to assess the situation and the condition and location of the victim.
2. Direct one man to enter the Safe-Start lane with a stretcher, to stand-by within eye site of the victim and assist with extraction as needed.
3. Direct one man to ensure the designated vehicle is as close to the Safe-Rest area as possible and is ready for instant departure, facing out, with the tail gate down and the engine off.

If another deminer was working in the field in an adjacent lane, he sould be intercepted by the Team Leader who should make a determination as to whether or not the deminer has suffered blast or fragment injuries. If he has not, he could be turned around and directed to begin extraction procedures of the victim.

If the victim has been blown out of the clearance lane and into the uncleared area, the deminer should begin sweeping a path to him from the nearest point in the clearance lane. Any contacts picked up by the detector should be marked and avoided, not investigated. He should locate a clear path between the safe lane and the victim, and to the area of the victim's head, where he can grasp him around the chest or upper body and drag him to the safe lane. If he needs assistance removing the victim from the minefield, he should indicate so to the man standing by with the stretcher.

The man with the stretcher should be observing the activities at the accident site. If the man with the detector indicates he needs help, the man with the stretcher should proceed into the lane, place the stretcher on the side of the lane, and assist with lifting the victim, extracting him and placing him on the stretcher. If the man with the detector does not indicate he needs help, the man with the stretcher should proceed into the lane when he sees that the victim has been moved into the safe lane. He should place the stretcher on the side of the lane and assist with loading the victim onto it.

The two men will then pickup the victim on the stretcher and transport him out of the minefield to the Medic, who will have his equipment set up, ready to receive the victim. in the safe area.

All other personnel in the Safe-Area should stand-by, ready to assist the Medic as he requests. This may be in preparing an I.V. assisting with CPR or control of bleeding.

After the Medic has stabilized the victim and directs that he be loaded on the vehicle for transport, two men should be positioned on the truck to receive the front of the stretcher as it is passed up over the tailgate. Four men should carry the victim to the truck. He should be carried and loaded head first.

If the distance from the Safe-Rest area to the truck is far, the Team Leader should direct relief stretcher-bearers be positioned half way to the vehicle.

The Medic and non-medical attendants as needed, should accompany the victim to the medical support facility.

The driver should be advised to maintain constant checks with the Medic and be prepared to slow down or stop as directed if it is necessary for the Medic to tend to the victim.

POST EVACUATION PROCEDURES: The following procedures should be conducted after the victim has been evacuated from the minefield site.

The Team Leader should ensure that all other deminers on site *Do Not* enter the minefield. The Medic and Vehicle will be *gone* and proper support in case of another accident would not be available.

The lane in which the accident occurred should be sealed off and all tools left in position. The exception to this might be the detector. If it is still functional it may be removed to protect it from the elements.

The Team Leader should conduct a preliminary investigation to determine if any of the team members saw the accident occur.

The NDO should dispatch an investigative officer or team, as soon as possible. They should proceed to the site and conduct an investigation. It is important to ensure that all team members know the purpose of the investigation is not to fix blame, but to determine the cause of the accident. In this way, improper procedures or techniques can be identified and corrected in an effort to avoid future accidents.

Team members should be allowed time off after the accident and the investigation to adjust themselves to the trauma of the incident and get themselves mentally prepared to resume their demining activities.