

It would be helpful if Ecuador could address the following areas identified by the Committee for additional information concerning Ecuador's request for extension:

- 1. Based on past productivity (e.g. in 2015 Ecuador released 82,591 square meters) and the total remaining challenge it would seem that Ecuador may be in a position to complete implementation of its obligations under Article 5 well ahead of the 5 years extension being sought. The request would benefit from additional details concerning the work plan to the rationale behind the 5 year request.*

The humanitarian demining operations in Ecuador have been developed according to the National Plan of Demining executed through the Battalion of Engineers No. 68 "COTOPAXI", in compliance with the regulations established for the humanitarian demining process.

After an analysis of the field where the hazardous mined areas are located, in 2014 we acquired a DOK-ING MV-4 ROBOT, which was used in 2015 through a Mechanical Demining Technique (MDT), which improved the performance and increased considerably the cleared area in the common land border Ecuador- Peru, releasing an area of 82.591 square meters where the ROBOT could access.

Humanitarian demining performance with the Manual Demining Technique (MDT) has an average of 3 - 4.5 m² / h and the use of the Mechanical Demining Technique (MDT) an average of 50 - 70 m² / h with slopes with less than 4 % of inclination.

The 100,496 square meters of mined hazardous areas to be released in Ecuador since 2018 are found in the Amazon rainforest in the Province of Zamora Chinchipe and the Square Kilometer of Tiwintza; these areas present an extensive and dense vegetation with cliffs and ravines of difficult access, with about 15- 25% of slopes 15 where it is possible to reach heights of up to 2400 meters above sea level being the only entrance way, the aerial one. The weather condition is a factor that limits the fulfillment of the planned operations; the climate is varied, with temperatures varying between 12 ° C and 35 ° C, with permanent humidity and precipitation in almost the entire year. Due to the experience gained, only 45% of planned operations can be met due to these factors

Therefore, due to the situations described above and after making an assessment of the pending mined areas and the factors influencing them (performance, percentage of slopes, climate, weather, humidity and difficult transfer of the Robot to the different hazardous areas), humanitarian demining will be carried out with the Manual Demining Technique (MDT), since the Robot is no longer considered for clearance of the pending hazardous areas. It should be mentioned that the Robot operates with slopes lower than 4% and also has a weight limitation (6 tons), which makes it difficult to mobilize it to the different areas, since the special aircraft required to do so is not available in Ecuador.

The geographic location of the hazardous areas and pending mines for demining with their hazardous area characteristics, % slope and ground conditions are detailed below.

COMMON LAND BORDER ECUADOR- PERU								
ORD.	PROVINCE	COUNTY/ SECTOR	OBJECTIVE	FORESEEN AREA m ²	MINES PENDING	% PENDING HAZARDOUS AREAS	CHARACTERISTICS OF HAZARDOUS AREAS	LAND CONDITIONS
1	ZAMORA CHINCHIPE	El Pangui	PV-LA_MEDIA	25.000,00	400	2 - 4 %	CHA (Confirmed hazardous areas)	Amazon Rainforest, extensive and dense vegetation with cliffs and ravines difficult to access, slopes, rain, where heights can reach up to 2400 meters above sea level
2		Nangaritza	PV-02_07	6.215,00	240	10 -12 %		
3		San Francisco	PV- PERINGOS_01	7.009,00	1.28	20 -22 %		
4		Chinapintza Cóndor Mirador; Machinaza Alto; Miazi y Paquisha	VARIOS-ZAMORA CHINCHIPE	19.261,00	512	15 -20 %	SHA (Suspicious hazardous areas)	
			7.521,00	734	25 - 30 %			
KM² OF TIWINTZA								
1	TIWINTZA	San Juan Bosco	VARIOS_MS_3 KM ²	35.490,00	608	15 - 20 %	CHA (Confirmed hazardous areas)	Amazon jungle, extensive and dense vegetation, ravines difficult to access, area contaminated with metal scrap and wastes of war (1995 armed conflict sector)
TOTAL				100.496,00	3.893			

2. *The request would benefit from the inclusion of additional details on areas to be addressed in a detailed annual work plan, including greater geographical specification of activities to be undertaken, characteristics mined areas, as well as key annual landmarks.*

The following is a detailed table: Confirmed Hazardous Areas (CHA), Suspicious Hazardous Areas (SHA), geographic location, planned annual program and targets to be achieved each year.

ORD	PROVINCE	COUNTY / SECTOR	UTM COORDINATES WGS-84 (X - Y)		ID HAZARDOUS AREAS	HAZARDOUS AREA TO BE LIBERATED M ²	AP MINES FORESEEN TO BE DESTROYED	CHARACTERISTIC OF HAZARDOUS AREA	YEAR OF EXECUTION	PLANNED AREA TO BE CLEARED PER YEAR (LANDMARK)	GEOGRAPHIC CONDITIONS / CHARACTERISTICS OF THE LAND AND SLOPES (°C) TEMPERATURE AND HUMIDITY	TECHNIQUE TO BE USED FOR THE CLEARANCE
1	Zamora Chinchipe	El Panguí	789439,95	9593127,02	PV_La media	25.000,00	400	CHA (Confirmed Hazardous Areas)	2018	26.159,00	Amazon Rainforest, extensive and dense vegetation with cliffs and ravines difficult to access, where heights can reach up to 2400 meters above sea level with temperatures 20 - 42 ° C. slopes of 2-4 %	Mechanic Demining Technique (MecDT)
2			789030,42	9592586,67	Obst_D-16	1.159,00	75					Manual Demining Technique (MDT)
3			789940,45	9606426,54	Obst_D-34	60	19					CHA (Confirmed Hazardous Areas)
4			790040,45	9606426,54	Obst_D-36	80	15					
5			789440,44	9601226,59	Obst_C-19	9.000,00	100					
6			789332,44	9600726,59	Obst_C-20	75	15					
7			789440,44	9600926,59	Obst_C-21	45	14					
8			789490,44	9601236,59	Obst_C-22	600	15					
9			788947,42	9592426,67	Obst_D-12	1.140,00	50					
10			788390,44	9595546,69	Obst_D-13	275	50					
11			788510,43	9592026,67	Obst_D-14	1.280,00	50					
12		Nangaritza	787695	9582072	PV-2_07	6.215,00	240	CHA (Confirmed Hazardous Areas)	2020	8.431,00	Amazon Rainforest, extensive and dense vegetation with cliffs and ravines difficult to access, where heights can reach up to 2400 meters above sea level with	Manual Demining Technique (MDT)
13		El Panguí	788090,41	9585816,73	Obst_D-32	250	50					
14			787850,42	9585586,73	Obst_D-33	100	30					
15			779836	9566932	CG-242	80	5					
16			779883	9566958	CG-243	50	15					

ORD	PROVINCE	COUNTY / SECTOR	UTM COORDINATES WGS-84 (X - Y)		ID HAZARDOUS AREAS	HAZARDOUS AREA TO BE LIBERATED M ²	AP MINES FORESEEN TO BE DESTROYED	CHARACTERISTIC OF HAZARDOUS AREA	YEAR OF EXECUTION	PLANNED AREA TO BE CLEARED PER YEAR (LANDMARK)	GEOGRAPHIC CONDITIONS / CHARACTERISTICS OF THE LAND AND SLOPES (°C) TEMPERATURE AND HUMIDITY	TECHNIQUE TO BE USED FOR THE CLEARANCE	
17			770216	9558160	CG-245	75	10				temperatures 20 - 42 ° C. slopes of 20-22 %		
18			769832	9553324	CG-224	420	10						
19			769832	9553324	CG-225	250	5						
20			769784	9553102	CG-226	525	17						
21			769745	9553214	CG-227	240	13						
22			760103	9518180	CG-235	100	6						
23			759999	9505366	CG-237	126	12						
24		San Francisco		787461	9582555	PV-Peringos_01	7.009,00	1280	CHA (Confirmed Hazardous Areas)	2021	13.400,00	Amazon Rainforest, extensive and dense vegetation with cliffs and ravines difficult to access, where heights can reach up to 2400 meters above sea level with temperatures 20 - 42 ° C. slopes of 15 - 20 %	Manual Demining Technique (MDT)
25		El Pangui		770065	9552299	CG-215	110	4					
26				770065	9552299	CG-216	154	6					
27				770065	9552299	CG-217	45	3					
28				770065	9552299	CG-218	300	5					
29				770065	9552299	CG-219	200	6					
30				770065	9552299	CG-220	120	6					
31				770065	9552299	CG-221	52	4					
32				770065	9552299	CG-222	1.600,00	6					
33				770065	9552299	CG-223	750	15					
34		Cóndor Mirador; Machinaza Alto; Miazi and Paquisha		-	-	Obst_C-26	180	17	SHA (Suspicious Hazardous Areas)	2022	7.521,00	Amazon Rainforest, extensive and dense vegetation with cliffs and ravines difficult to access, where heights can reach up to 2400 meters above sea level with	Manual Demining Technique (MDT)
35				-	-	Obst_C-1	69	10					
36				-	-	Obst_C-2	45	10					
37				-	-	Obst_C-3	28	14					
38				-	-	Obst_C-4	60	19					

ORD	PROVINCE	COUNTY / SECTOR	UTM COORDINATES WGS-84 (X - Y)		ID HAZARDOUS AREAS	HAZARDOUS AREA TO BE LIBERATED M ²	AP MINES FORESEEN TO BE DESTROYED	CHARACTERISTIC OF HAZARDOUS AREA	YEAR OF EXECUTION	PLANNED AREA TO BE CLEARED PER YEAR (LANDMARK)	GEOGRAPHIC CONDITIONS / CHARACTERISTICS OF THE LAND AND SLOPES (°C) TEMPERATURE AND HUMIDITY	TECHNIQUE TO BE USED FOR THE CLEARANCE
39			-	-	Obst_C-5	90	10				temperatures 20 - 42 ° C. slopes of 25 - 30 %	
40			-	-	Obst_C-6	165	38					
41			-	-	Obst_C-7	400	40					
42			-	-	Obst_C-8	12	5					
43			-	-	Obst_C-9	90	120					
44			-	-	Obst_C-12	600	40					
45			-	-	Obst_C-13	600	43					
46			-	-	Obst_D-19	500	81					
47			-	-	Obst_D-20	3.200,00	68					
48			-	-	Obst_D-22	525	44					
49			-	-	Obst_D-23	90	4					
50			-	-	Obst_D-24	75	14					
51			-	-	Obst_D-25	260	68					
52			-	-	Obst_D-40	100	8					
53			-	-	Obst_D-41	30	10					
54			-	-	Obst_D-42	10	3					
55			-	-	Obst_D-43	150	15					
56			-	-	Obst_C-23	80	20					
57			-	-	Obst_C-25	135	15					
58			-	-	Obst_C-27	18	15					
59			-	-	Obst_C-28	9	3					
TOTAL						65.006,00	3.285					

Square Kilometer of Tiwintza

ORD	PROVINCE	COUNTY / SECTOR	UTM COORDINATES WGS-84		ID HAZARDOUS AREAS	HAZARDOUS AREA TO BE LIBERATED M ²	AP MINES FORESEEN TO BE DESTROYED	CHARACTERISTIC OF HAZARDOUS AREA	GEOGRAPHIC CONDITIONS / CHARACTERISTICS OF THE LAND AND SLOPES (°C) TEMPERATURE AND HUMIDITY	TECHNIQUE TO BE USED FOR THE CLEARANCE
			COORDINATES_X	COORDINATES_Y						
1	TIWINTZA	San Juan Bosco	804640,35	9615826,42	CG-BT_7 ^(B)	2.500,00	38	CHA (Confirmed Hazardous Areas)	Amazon Rainforest, extensive and dense vegetation with cliffs and ravines difficult to access, where heights can reach up to 2400 meters above sea level with temperatures 20 - 42 ° C. slopes of 15 - 20 %	Manual Demining Technique (MDT)
2			804740,35	9616026,41	CG-BT_9	750	61			
3			804740,35	9616426,41	CG-BT_10		60			
4			804740,35	9616626,41	CG-BT_11		64			
5			804840,35	9616226,41	CG-BT_13	5.500,00	117			
6			804940,35	9615926,41	CG-BT_14	17.440,00	129			
7			805140,35	9615926,41	CG-BT_16 ^(B)	2.000,00	99			
8			805240,35	9616126,41	CG-BT_17	2.000,00	79			
9			805340,34	9615726,41	CG-BT_18	2.500,00	135			
10			805340,34	9615926,41	CG-BT_19	2.800,00	99			
TOTAL						35.490,00				

3. The request would benefit from clarifying small discrepancies within the text, in particular the request would benefit from the information provided in tables 14 (Mine areas pending to be released with their annual achievements) and 16 (Total area to be demined and mines to be destroyed after 2018) being harmonized.

Regarding the concerns about Tables 14 and 16 which are reflected in the Request for Extension submitted by Ecuador; this information has already been forwarded and the table with the required detail is attached.

COMMON LAND BORDER ECUADOR- PERU						
ORD.	PROVINCE	OBJECTIVE	FORESEEN AREA m ²	MINES PENDING	REMARKS	Areas where the existence of mines is suspected CHA and/or confirmed SHA
1	ZAMORA CHINCHIPE	PV-LA_MEDIA	25.000,00	400	IN PROGRESS	Areas where the existence of mines is confirmed (CHA)
2		PV-02_07	6.215,00	240	PENDING	
3		PV-PERINGOS_01	7.009,00	1.28	PENDING	
4		VARIOUS-ZAMORA CHINCHIPE	19.261,00	512	IN PROGRESS	Areas where the existence of mines is suspected (SHA)
		7.521,00	734	26 OBJECTIVES WITH NO COORDINATES PENDING		
KM ² OF TIWINTZA						
1	TIWINTZA	VARIOUS_MS_3 KM ²	35.490,00	608	IN PROGRESS WITH THE BI-NATIONAL UNIT	Areas where the existence of mines is confirmed (CHA)
TOTAL			100.496,00	3.893		

4. The request would benefit from additional details concerning activities and timelines associated with the delivery of reference points around the square kilometer of Tiwintza as well as additional details on survey and clearance activities in this area. In particular a clear survey and clearance timeline would be welcome.

Peru made a prioritization of delivery of the hazardous areas that include 26 hazardous areas in the vicinity of the Tiwintza Square Kilometer.

The delivery of the reference points of the mined hazardous areas entails an additional effort with the use of personnel, material, equipment and means.

According to the prioritization presented by Peru, the programming of the delivery of the 26 hazardous areas in the vicinity of the Tiwintza Square Kilometer is carried out, according to the following detail:

DELIVERY PROGRAM OF THE REFERENCE POINT TO PERU								
ACCORDING TO THE PRIORITIZATION REQUESTED BY PERU)								
Ord.	Obstacle	ID Obj.	Precinct / Sector	Coordinates	Area (m ²)	Mines	Location	Planning
1	Obst-30	CG-BT_1	Coangos - Base Tiwintza	WGS-84 - 17 (800949,3 - 9614935,7)	400,00	24	Peru	2018
2	Obst-35	CG-BT_4 ^(B)	Coangos - Base Tiwintza	WGS-84 - 17 (804249,3 - 9616435,7)	400,00	15	Peru	
3	Obst-25	CG-BT_5 ^(B)	Coangos - Base Tiwintza	WGS-84 - 17 (804449,3 - 9615935,7)	20.000,00	183	Peru	
4	Obst-37	CG-BT_6 ^(B)	Coangos - Base Tiwintza	WGS-84 - 17 (804449,3 - 9616235,7)	1.500,00	52	Peru	
5	Obst-34	CG-BT_8 ^(B)	Coangos - Base Tiwintza	WGS-84 - 17 (804649,3 - 9616835,7)	1.000,00	12	Peru	
6	Obst-36	CG-BT_12	Coangos - Base Tiwintza	WGS-84 - 17 (804749,3 - 9616835,7)	200,00	5	Peru	
7	Obst-26	CG-BT_15	Coangos - Base Tiwintza	WGS-84 - 17 (805049,3 - 9615535,7)	2.100,00	114	Peru	
8	Obst-3	CG-BT_2	Coangos - Confluencia el rio Twintza y Cenepa	WGS-84 - 17 (803049,3 - 9616235,7)	300,00	18	Peru	
9	Obst-2	CG-BT_3	Coangos - Los bohíos	WGS-84 - 17 (803649,3 - 9617035,7)	250,00	18	Peru	
10	Obst-32	CG-BT_20	Coangos - Base Tiwintza	WGS-84 - 17 (806649,3 - 9616535,7)	400,00	23	Peru	
11	Obst-33	CG-BT_21 ^(B)	Coangos - Base Tiwintza	WGS-84 - 17 (806949,3 - 9616835,7)	1.500,00	42	Peru	
12	Obst-16	CG-BS_1 ^(B)	Coangos - Base south	WGS-84 - 17 (804649,3 - 9612835,7)	1.100,00	81	Peru	2019
13	Obst-14	CG-BS_2 ^(B)	Coangos - Base south	WGS-84 - 17 (805049,3 - 9612735,7)	600,00	7	Peru	
14	Obst-17	CG-BS_3	Coangos - Base south	WGS-84 - 17 (805249,3 - 9612535,7)	680,00	5	Peru	
15	Obst-18	CG-BS_4	Coangos - Base south	WGS-84 - 17 (805349,3 - 9612535,7)	36.000,00	42	Peru	
16	Obst-5	CG-BS_5 ^(B)	Coangos - Base south	WGS-84 - 17 (805449,3 - 9612135,7)	2.000,00	123	Peru	
17	Obst-15	CG-BS_6 ^(B)	Coangos - Base south	WGS-84 - 17 (805549,3 - 9612735,7)	500,00	25	Peru	

18	Obst-1	CG-LP_1	Coangos - La Piedra	WGS-84 - 17 (802949,3 - 9612335,7)	400,00	30	Peru	2020
19	Obst-6	CG-LP_2 ^(B)	Coangos - La Piedra	WGS-84 - 17 (803049,3 - 9612635,7)	800,00	36	Peru	
20	Obst-12	CG-BS_7	Coangos - Cruz Base south	WGS-84 - 17 (806349,3 - 9612935,7)	28.700,00	57	Peru	
21	Obst-7	CG-BS_8	Coangos - La Cruz Montañita	WGS-84 - 17 (806349,3 - 9613035,7)	2.800,00	105	Peru	
22	Obst-11	CG-BS_9 ^(B)	Coangos - Cruz	WGS-84 - 17 (806749,3 - 9611935,7)	2.500,00	30	Peru	
23	Obst-9	CG-BS_10	Coangos – Heliport Ibarra	WGS-84 - 17 (806449,3 - 9614135,7)	12.000,00	71	Peru	
24	Obst-8 ^(A)	CG-DC_1	Coangos - Dest. Coangos	WGS-84 - 17 (807446 - 9612936)	3.500,00	47	Peru	
25	Obst-10 ^(A)	CG-DC_2 ^(B)	Coangos - Dest. Coangos- la Cruz	WGS-84 - 17 (807446 - 9612936)	2.850,00	37	Peru	
26	1 CM- Estero ^(A)	CG-DC_5	Coangos - Estero	WGS-84 - 17 (807702 - 9613722)	400,00	-	Peru	

The timeline of clearance of these hazardous areas corresponds to Peru's planning, in close coordination with the Humanitarian Demining Unit of Ecuador, which may have slight variations.

5. The request indicated that Ecuador has contemplated carrying out quality control of all the cleared areas to complete the process of humanitarian demining prior to the delivery of land. The request would benefit from providing details concerning the process of handover of land that has been cleared since 2000. Additionally the request would benefit from including timeline information on the process of handover.

It has been contemplated to carry out a Quality Control by the National Authority of Humanitarian Demining of Ecuador (CENDESMI), in coordination with the unit executing the clearance of the hazardous mined areas (Battalion of Engineers No. 68 “COTOPAXI”), with the purpose of doing the correspondent verification of said cleared areas and its further delivery to the local authorities.

The schedule of land delivery after carrying out the Quality Control of the cleared areas since 2000 corresponds to the following detail:

ORD.	PROVINCE	COUNTY / SECTOR	NUMBER OF CLEARED OBJECTIVES	UTM COORDINATES WGS-84 X - Y		RELEASED AREA m ²	MINES DESTROYED	YEAR OF QUALITY CONTROL AND DELIVERY
1	EL ORO	Arenillas	20	587148	9604843	92.333,70	271	2018
		Huaquillas	4	586597	9616577	11.138,55	2	
2	LOJA	Macará	13	613881	9515398	16.289,44	20	
		Zapotillo	14	585922	9516557	50.024,74	52	
3	PASTAZA	Arajuno	4	434470	9828768	4.862,00	12	2019
		Pastaza	11	343844	9734870	26.208,00		
4	MORONA SANTIAGO	San Juan Bosco	16	807557	9612909	113.717,00	4411	2020 -2022
		Taisha	1	274983	9698828	200,00		
		Tiwintza	85	865711	9673596	116.962,95		
5	ZAMORA CHINCHIPE	Chinchipe	2	734404	9459534	763,00	217	
		Nangaritza	10	760665	9518410	40.470,00		
		El Pangui	2	789440	9593127	17.442,00		

6. The request would benefit from increased details on the budget which will cover the cost of operations in light of the additional areas received from Peru that need to be addressed. The request would also benefit from increased information on the kind of international support its humanitarian demining program (e.g. would Ecuador welcome International mine clearance NGOs to support operations?).

The suspicious hazardous areas delivered by Peru to Ecuador correspond to: thirteen areas (13) delivered in 2012 and one area (1) delivered at the beginning of 2014, which are financed in the project called "RELEASE OF LANDS POLLUTED BY LANDMINES KNOWN UNTIL THE MOMENT ON THE COMMON BORDER BETWEEN ECUADOR AND PERU". It should be noted that this project is a multiannual investment and is financed by the National Government of Ecuador, which allocates resources for the effect, however, after the earthquake occurred on April 16, 2016, this allocation may be reduced and the resources may be insufficient and it is assumed that it would be advisable to alleviate costs with international aid to finalize and ensure compliance with the goal by 2022.

International aid could consist of vehicles, ambulances, demining equipment, camps and training.

