



CAMBODIA

PROGRAMME PERFORMANCE	2017	2016
Problem understood	5	5
Target date for completion of cluster munition clearance	5	5
Targeted clearance	6	6
Efficient clearance	5	5
National funding of programme	3	3
Timely clearance	6	6
Land-release system in place	6	6
National mine action standards	5	4
Reporting on progress	5	5
Improving performance	6	5
PERFORMANCE SCORE: AVERAGE	5.2	5.0

PERFORMANCE COMMENTARY

Cambodia continues to hold back from joining the Convention on Cluster Munitions (CCM) but a management shake-up at the end of 2017 has re-energised the Cambodian Mine Action and Victim Assistance Authority (CMAA) and increased confidence that sector management is now proactively addressing issues relating to cluster munitions on their merits. The National Mine Action Strategy, which takes effect from 2018, includes goals and guidelines for cluster munition remnant (CMR) survey and clearance and the CMAA accepted the cluster munition remnant survey (CMRS) methodology was accepted in principle as the national standard.

RECOMMENDATIONS FOR ACTION

- Cambodia should accede to the CCM as a matter of priority.
- Cambodia should revise its reporting of survey and clearance of CMR-affected areas to provide a more accurate measure of contamination and the progress of clearance.
- Cambodia should establish a dedicated Technical Working Group (TWG) on cluster munition survey and clearance to complement existing TWGs focused on mine clearance.

CONTAMINATION

Cambodia has extensive CMR contamination but the full extent is not known. Contamination resulted from intensive bombing by the United States (US) during the Vietnam War, concentrated in north-eastern provinces along the borders with the Lao People's Democratic Republic and Vietnam. The US Air Force dropped at least 26 million explosive submunitions, between 1.9 million and 5.8 million of which are estimated to have not exploded.¹

Cambodia has sharply raised its estimate of CMR contamination in recent years, as a result of focusing more attention on the issue and implementing the national Baseline Survey (BLS), but it presents widely

varying assessments of the extent of the problem. Cambodia estimates total CMR contamination in 18 provinces at 624km², but has not explained the basis for this figure.² Its National Mine Action Strategy says known CMR contamination covers 645km² and believes the figure will rise as a result of future survey.³

As at April 2018, the CMAA reported CMR contamination in the eight eastern provinces close to the border with Vietnam, which are believed to account for most of the problem, at 457km². This is an increase of one quarter from its estimate of 365km² a year earlier. Two provinces, Kratie and Stung Treng, accounted for more than half of the CMR total.⁴

Table 1: Explosive Remnants of War Survey of Eight Eastern Provinces BLS in 2009–17⁵

Province	CMR-contaminated area (m ²)	Area with other UXO (m ²)	Total ERW-contaminated area (m ²)
Kampong Cham	46,378,266	9,799,903	56,178,169
Kratie	106,032,171	26,315,540	132,347,711
Mondolkiri	18,702,666	10,375,597	29,078,263
Prey Veng	31,758,044	45,094,918	76,852,962
Rattanakiri	44,093,931	1,369,256	45,463,187
Stung Treng	131,731,346	29,633,740	161,365,086
Svay Rieng	46,447,704	37,174,806	83,622,510
Tboung Khmum	31,863,776	18,557,027	50,420,803
Totals	457,007,904	178,320,787	635,328,691

However, the survey is not considered a reliable measure of CMR contamination. The BLS employed a landmine survey methodology, resulting in exaggerated and inaccurate polygons, raising the likelihood that CMR contamination estimates will undergo significant revision as operators apply more accurate survey methods. Operators report that polygons are found to contain no CMR and also find significant contamination outside BLS polygons. Operators have worked in Rattanakiri province for four years but were still identifying additional CMR hazardous areas in 2017 in areas not identified by the BLS as contaminated. Meanwhile CMAA reporting forms are formatted to record mine clearance and do not readily capture the results of CMR survey.⁶

Much of Cambodia's CMR contamination lies in areas that are heavily forested and sparsely populated, limiting the community information available on affected areas. CMAA data identifies six submunition casualties since the start of 2013, one of which was a fatality, but did not record any CMR incidents in 2016 and only one in 2017. However, demand for land and the large numbers of people moving into the northern provinces, raise the threat of increased casualties in the future, while also generating more evidence of the scale of contamination.⁷

Other Explosive Remnants of War and Landmines

Cambodia estimated in 2017 that it had around 379km² of explosive remnants of war (ERW) contamination apart from CMR⁸ and more than 960km² of mined area. Cambodia estimates it has a total of 635km² of

contamination and more than 960km² of mined area. Landmines are concentrated in, though not limited to, west and north-west Cambodia. ERW, including air-dropped bombs and ground artillery, is heaviest in the eastern provinces (see Mine Action Review's *Clearing the Mines* report on Cambodia for further information).⁹

PROGRAMME MANAGEMENT

The CMAA, set up in September 2000, regulates and coordinates all activities relating to survey and clearance of ERW, including CMR, responsibilities previously assigned to the Cambodian Mine Action Centre (CMAC).¹⁰ The CMAA's responsibilities include regulation and accreditation of all operators, preparing strategic plans, managing data, conducting quality control, and coordinating risk education and victim assistance.¹¹

Prime Minister Hun Sen is the CMAA President and Senior Minister Ly Thuch its First Vice-President overseeing the authority. In 2017, CMAA management underwent significant change for the second successive year. First Vice-President Serei Kosal, appointed in 2016, was moved out of the CMAA. Former CMAA Secretary-General, Prum Sophakmonkol, who was moved to the Ministry of Foreign Affairs in 2016, was reappointed to that position with effect from the start of January 2018 bringing extensive experience and knowledge of mine action to planning and operations. Stakeholders welcomed the changes as positive for the CMAA, which is moving forward by adopting best practice and promoting efficiency.

Strategic Planning

Cambodia does not have a CMR-specific strategic plan but the National Mine Action Strategy (NMAS), prepared in 2017 and formally adopted at a national conference in May 2018, included targets for tackling CMR contamination as the second of its eight goals. It called for "release of prioritised cluster munitions contaminated areas by 2025" and specified two CMR-related objectives:¹²

- Plan and prioritise CMR-contaminated areas to be released
- Conduct survey and release confirmed areas of CMR contamination, develop national standards for survey and clearance, implement the CMRS methodology and increase survey and clearance capacity.

The NMAS and Cambodia's latest Anti-Personnel Mine Ban Convention (APMBC) Article 7 report for 2017 include a "Land Release and Funding Projection", which foresees release of 499km² (80% of the estimated 624km² CMR contamination) by 2025, with average annual release of 62km².¹³

The NMAS' goals and objectives are set out in greater detail in a three-year implementation plan for 2018–20.¹⁴ A ten-point agenda drawn up by the CMAA includes setting up a technical working group on cluster munitions clearance.

Quality Management

The CMAA is responsible for external quality management of CMR clearance.

Information Management

The CMAA manages a database that upgraded to operating Information Management System for Mine Action (IMSMA) New Generation in 2014 that receives regular operational progress reports from operators but in 2017 information management remained a major challenge.

Operators

National operator CMAC and international operators MAG and NPA all conducted CMR clearance in 2017.

LAND RELEASE

CMAA reported that a total of 26.5km² of CMR-affected land was released in 2017 and, unusually, indicated that nearly 90% of this (23.5km²) was released through clearance and only 2.7km² as a result of survey.¹⁵ Official data differed significantly from results recorded by operators and is likely to undergo revision. Weaknesses in the official data also limit its effectiveness in measuring progress in addressing CMR contamination (see Clearance section below).

Survey in 2017

The CMAA approved the CMRS methodology in principle in 2017, but as at June 2018 had not yet formally adopted it as the national standard. The CMAA planned to continue with the BLS to provide a consistent assessment of ERW contamination across the country. The survey, which started in 2009, had completed 124 districts by 2017 and CMAA planned to complete BLS in 36 remaining districts by 2020. It said how quickly the survey progressed depended on funding. In the meantime, CMAA recognised the limitations of BLS

methodology in measuring CMR contamination and planned to modify survey procedures.¹⁶ The CMAA Three-year Implementation Plan calls for meetings with stakeholders to develop CMR survey and land release standards and prioritisation guidelines, building up survey team CMRS capacity and implementing CMRS.¹⁷

In 2017, CMRS was applied only by NPA, which worked in Rattanakiri province with three CMRS teams focused on defining the extent of the problem. It prioritised areas for survey on the basis of government development plans, bombing and accident data, and the evidence identified in spot tasks. Under CMAA procedures, it was previously obliged to conduct CMRS/technical survey on the basis of large suspected hazardous areas generated by the BLS that often bore little relation to CMR contamination. The CMAA agreed in 2017 that NPA should conduct evidence-based non-technical survey, allowing identification of smaller SHAs defining contaminated areas more precisely. As a result, NPA more than doubled the hazardous area it confirmed in 2017 (see Table 2), while the area it reduced was less than one-third of the area reduced in 2016.¹⁸

Table 2: NPA CMR Survey

Year	Area surveyed (m ²)	CHAs identified	Area confirmed (m ²)	Area reduced from BLS (m ²)
2017 ¹⁹	5,493,700	23	4,493,700	844,224
2016	4,687,000	22	1,840,521	2,846,979
2015	4,796,761	20	1,459,261	3,337,500

MAG deployed four teams in Rattanakiri for survey and/or clearance in 2017, cancelling 0.07km² and confirming two hazards affecting 0.4km². MAG incorporates data relating to spot tasks in a system of evidence-point polygon mapping to help define CHAs and worked with the CMAA to integrate this approach into the national database.²⁰

CMAC had not provided results for its operations in 2017, as at June 2018. CMAA data, though, showed CMAC as releasing 0.53km² in 2017, significantly less than the amount CMAC had reported for 2016. The United States awarded an NPA-CMAC partnership a \$2 million contract for survey and clearance in the north-east starting in March 2018 and due to run for one-year under which NPA provides oversight of survey conducted by CMAC teams which are required to conduct CMRS.

Clearance in 2017

CMAA data indicates operators cleared a total of 23.5km² of CMR-contaminated area in 2017, 5% more than the previous year, though this figure includes clearance conducted on BLS polygons and as a result appears to exaggerate some results while failing to capture others. BLS polygons produced by non-technical survey based on landmine survey methodology are recognised as ineffective in accurately capturing CMR contamination.

Official data suggests CMAC teams cleared 6,000m² for every submunition destroyed, compared with under

600m² for every submunition cleared by NPA (see Table 3). No data had been received from CMAC itself by the time this report went to print.²¹

At the same time, official data only reports clearance of BLS polygons and therefore under-represents land release by failing to capture operators' clearance of CMR contamination outside BLS polygons. MAG reported releasing 2.1km² through clearance in 2017, 22% more than the previous years, and destroying 1,301 submunitions and 164 items of UXO. It attributed the increase to deployment of Scorpion advanced detection systems provided by the US Humanitarian Demining Research and Development Programme. MAG expected to expand its clearance capacity in 2018, enabling it to extend its explosive ordnance disposal (EOD) spot/roving response into Stung Treng and Mondolkiri provinces in the north-east while also continuing survey and clearance in Rattanakiri.²²

NPA, though focused primarily on survey, also reported a significant rise in productivity, clearing 0.94km² in 2017, more than double the amount of land it cleared in 2016 and close to double the clearance reported for NPA by the CMAA. NPA also reported destroying 856 submunitions, fewer than the number recorded by the CMAA, and 36 items of UXO. NPA attributed the acceleration to its use of explosive detection dogs as the main detection tool, avoiding electronic detector signals generated by scrap metal and laterite.²³

Table 3: Clearance of CMR-contaminated areas in 2017²⁴

Operator	Areas cleared	Area cleared (m ²)	Submunitions destroyed	Other UXO destroyed
CMAC	138	21,914,789	3,624	1,702
MAG	3	1,037,068	1,301	164
NPA	5	549,748	940	3
Totals	146	23,501,605	5,865	1,869

The extent of roving clearance in 2017 is unclear in the absence of information from CMAC, the largest mine action organisation, but among two other operators active in dealing with CMR it continued at about the same level as in 2016 in terms of submunitions

destroyed despite a dip in the number of tasks MAG conducted. MAG reported roughly half the items it destroyed in roving operations are found outside BLS polygons.²⁵

Table 4: Spot/Roving Clearance and Explosive Ordnance Disposal in 2017²⁶

Operator	Roving tasks	Submunitions destroyed	UXO destroyed
CMAC	N/R	N/R	N/R
MAG	1,801	2,483	5,475
NPA	25	19	19
Totals	1,826	2,502	5,494

N/R = Not reported

ARTICLE 4 COMPLIANCE

Cambodia is not a state party or signatory to the CCM. Nonetheless, Cambodia has obligations under international human rights law to protect life, which require that cluster munition remnants be cleared as soon as possible.

Cambodia has made accession to the CCM by 2020 Goal 3 of its latest National Mine Action Strategy. The strategy calls for “building consensus among national stakeholders to ensure that Cambodia becomes a State Party to CCM.”²⁷ Officials continue to cite the refusal of Thailand, a state possessing cluster munitions, to sign the CCM as an obstacle to Cambodia joining the convention.²⁸

1 South East Asia Air Sortie Database, cited in D. McCracken, “National Explosive Remnants of War Study, Cambodia”, NPA in collaboration with CMAA, Phnom Penh, March 2006, p. 15; Human Rights Watch, “Cluster Munitions in the Asia-Pacific Region”, April 2008; and Handicap International (HI), *Fatal Footprint: The Global Human Impact of Cluster Munitions*, HI, Brussels, November 2006, p. 11.

2 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (for 2017), Annex B; and email from the CMAA, 22 May 2018.

3 CMAA, National Mine Action Strategy 2018–2025, p. 9.

4 Email from CMAA, 22 May 2018.

5 Ibid.

6 Interviews with Aksel Steen-Nilsen, Country Director, NPA, Phnom Penh, 1 May 2017 and 24 April 2018; and with Greg Crowther, Regional Director, South and South East Asia, MAG, in Phnom Penh, 1 May 2017 and 26 April 2018.

7 Casualty data received by email from Nguon Monoketya, Deputy Director, Socio-Economic Planning and Database Management Department, CMAA, 17 February 2017.

8 CMAA, National Mine Action Strategy 2018–2025, p. 10.

9 Email from CMAA, 22 May 2018. The NMAS puts mine contamination at 946km².

10 CMAC is the leading national demining operator, but does not exercise the wider responsibilities associated with the term “centre.” Set up in 1992, CMAC was assigned the role of coordinator in the mid-1990s. It surrendered this function in a restructuring of mine action in 2000 that separated the roles of regulator and implementing agency and led to the creation of the CMAA.

11 Geneva International Centre for Humanitarian Demining (GICHD), “A Study of the Development of National Mine Action Legislation”, November 2004, pp. 64–66.

12 CMAA, National Mine Action Strategy 2018–2025, pp.11–12.

13 Ibid., Annex B; and APMBC Article 7 Report (for 2017), Annex B.

14 CMAA, “Three-Year Implementation Plan 2018–2020”, undated but 2018; interview with Prum Sophakmonkol, Secretary General, CMAA, Phnom Penh, 24 April 2018.

15 Email from CMAA, 22 May 2018.

16 Interview with Prum Sophakmonkol, CMAA, 24 April 2018.

17 CMAA, “Three-year Implementation Plan 2018–2020”, undated but 2018, pp. 4–5.

18 Emails from Aksel Steen-Nilsen, NPA, 2 April and 30 May 2018; and interview in Phnom Penh, 24 April 2018.

19 Email from Aksel Steen-Nilsen, NPA, 10 June 2018.

20 Emails from Greg Crowther, MAG, 11 May and 12 June 2018.

21 Data provided by NPA and MAG indicated clearance of approximately 1,920m² and 1,600m² per submunition respectively.

22 Interview with Greg Crowther, MAG, 28 April 2018; and email, 11 May and 12 June 2018.

23 Emails from Aksel Steen-Nilsen, NPA, 2 April and 10 June 2018.

24 Email from the CMAA. Data does not disaggregate items destroyed in the course of clearance and survey.

25 Interview with Greg Crowther, MAG, 28 April 2018.

26 Emails from Greg Crowther, MAG, 11 May 2018; and from Aksel Steen-Nilsen, NPA, 2 April and 10 June 2018.

27 CMAA, National Mine Action Strategy 2018–2025, p. 13.

28 Interview with Prum Sophakmonkol, CMAA, 24 April 2018.