CAMBODIA

ARTICLE 5 DEADLINE: 1 JANUARY 2020
(NOT ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE

	2017	2016
Problem understood	8	8
Target date for completion of mine clearance	6	6
Targeted clearance	7	6
Efficient clearance	6	6
National funding of programme	6	6
Timely clearance	6	5
Land-release system in place	8	8
National mine action standards	8	8
Reporting on progress	4	4
Improving performance	7	6
PERFORMANCE SCORE: AVERAGE	**6.6**	**6.3**

PERFORMANCE COMMENTARY

Cambodia's mine action sector moved along with little direction or progress in planning for much of 2017. That changed at the end of the year when a management shake-up at the Cambodian Mine Action and Victim Assistance Authority (CMAA) galvanised the preparation of the National Mine Action Strategy, officially launched in May 2018, and injected new momentum into discussions on more survey, better task selection, and more efficient use of assets, accelerating land release towards the goal of completing clearance by 2025 and presenting a compelling case for continued donor funding. Tracking the sector's progress, however, continued to be obscured by discrepancies in results recorded by the CMAA and operators.

RECOMMENDATIONS FOR ACTION

- Cambodia should push ahead with a land reclamation survey to release suspected mined areas under cultivation.
- Cambodia should accelerate clearance of land with dense mine contamination.
- Cambodia should conclude early agreements with Thailand to, at the least, pilot cooperation in border demining.
- The CMAA should synchronise reporting with operators and eliminate discrepancies, which make it difficult to track progress.

CONTAMINATION

Cambodia has extensive contamination by mines and explosive remnants of war (ERW) left by 30 years of conflict that ended in the 1990s. Its anti-personnel mine problem is concentrated in, but not limited to, 21 north-western districts along the border with Thailand, which account for the great majority of mine casualties. The K5 mine belt, which was installed along the border with Thailand in the mid-1980s in an effort to block infiltration by armed opposition groups, ranks among the densest contamination in the world.[1]

After more than 25 years of mine clearance, new finds of mined areas continue to push up estimates of contamination. A baseline survey (BLS) of Cambodia's 139 most mine-affected districts, completed in 2013, estimated total mine and ERW contamination at 1,915km^2. Areas affected to some degree by mines covered a total of more than 1,111km^2, of which 1,043km^2 were affected by anti-personnel mines. This included some 73km^2 of dense contamination but most areas, covering 892km^2, contained "scattered or nuisance" anti-personnel and anti-vehicle mines.[2]

At the end of 2017, the CMAA estimated that dense anti-personnel mine contamination in the 136 districts covered by the BLS affected 101km^2, while mixed anti-personnel/anti-vehicle mined areas amounted to almost 250km^2 (see Table 1). Total contamination of 941km^2 was 5% higher than a year earlier.[3] That estimate is consistent with Cambodia's latest Anti-Personnel Mine Ban Convention (APMBC) Article 7 transparency report, which put total known or suspected anti-personnel mine contamination at 895km^2.[4] The CMAA acknowledges much of the BLS data is imprecise, and believes further survey could reduce suspected mined area by one-third or more, but also expects it to capture new polygons that could add up to around 100km^2 to contamination estimates.[5]

Table 1: Mined area (in 136 districts) (m^2)[6]

Contamination classification	End 2017	End 2016
A1 Dense AP mines	**101,025,615**	**100,778,056**
A2 Mixed AP and AV mines	33,290,704	36,361,353
A2.1 Mixed dense AP/AV mines	6,794,017	7,090,672
A2.2 Mixed scattered AP/AV mines	209,471,512	168,694,189
A2 Total	**249,556,233**	**212,146,214**
A3 AV mines	**47,031,294**	**47,082,941**
A4 Scattered or nuisance mines	**543,730,050**	**537,184,712**
Totals	**941,343,192**	**897,191,923**

AP = Anti-personnel AV = Anti-vehicle

Mines and ERW caused 58 casualties, including 10 deaths, in 2017 (see Table 2), a drop of nearly one-third from the previous year. 2017 is believed to be the first year Cambodia recorded no deaths caused by anti-vehicle mines, attesting to the effects of the attention paid to anti-vehicle mine clearance in the last few years.[7] Cambodia had 31 mine/ERW casualties in the first half of 2018, one fewer than in the same period of 2017, seven of which were fatalities.[8]

Table 2: Casualties by device in 2016–17[9]

Device	2017		2016	
	Killed	Injured	Killed	Injured
AP mine	4	15	3	23
AV mine	0	3	4	12
ERW	6	30	18	23
Totals	**10**	**48**	**25**	**58**

PROGRAMME MANAGEMENT

The CMAA, set up in September 2000, regulates and coordinates mine action, 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, setting standards, conducting quality control, and coordinating risk education and victim assistance.[11]

Cambodia's Prime Minister Hun Sen is the CMAA's president. In 2016, he appointed Serei Kosal as First Vice President, and Ly Thuch, who also serves as a Senior Minister, as CMAA Secretary General, replacing Prum Sophakmonkol, who moved to the Ministry of Foreign Affairs. At the end of 2017, Ly Thuch became First Vice President of the CMAA, representing the CMAA within government and in relations with foreign governments and donors. Prum Sophakmonkol returned as Secretary General, largely responsible for operational policy and implementation.

The CMAA pursues a national mine action policy that is said to be "people centred", balancing top-down policy-making with community-up requirements.[12] The CMAA identifies priority communes for clearance on the basis of casualty data while provincial-level Mine Action Planning Units (MAPUs) are responsible for preparing annual clearance task lists. This is done by working in consultation with local authorities to identify community priorities as well as with mine action operators, taking account of donor funding and objectives. Task lists are reviewed and approved by Provincial Mine Action Committees (PMACs) and the CMAA. Reviews of the system in 2015 identified weaknesses, notably in reconciling local-level priorities with wider strategic goals,[13] and CMAA management acknowledged a need to review the criteria for prioritising clearance in discussions on a new mine action strategy.[14]

The United Nations Development Programme (UNDP) has supported the CMAA through a "Clearing for Results" (CFR) programme since 2006, awarding contracts funded by international donors through a process of competitive bidding. The first two phases from 2006 to the end of 2015 resulted in release of 167km^2 at a cost of $37 million.[15]

The Clearing for Results (CFR) programme issued two clearance contracts worth $2.18 million in 2017, both going to CMAC and resulting in reported clearance of 13.38km^2. It also awarded CMAC a further three contracts worth about $200,000 for baseline survey and non-technical survey of reclaimed areas, which resulted in release of a further 11.63km^2. The National Centre for Peacekeeping Forces Management, Mines and Explosive Remnants of War Clearance (NPMEC), which was active in CFR in previous years, did not participate in 2017, citing pressures of UN peacekeeping deployments. In 2018, the CFR programme issued four contracts worth a total of $1.43 million: three going to CMAC and one to The HALO Trust. CMAC was also awarded land reclamation non-technical survey and baseline survey contracts worth about US$180,000.[16]

Table 3: CFR results for 2017[17]

Operator	Province	Area released (m^2)	AP mines destroyed	AV mines destroyed	Other UXO destroyed
CMAC	Battambang	7,093,940	1,010	5	756
CMAC	Banteay Meanchey	6,287,069	1,159	5	2,331
	Totals	**13,380,009**	**2,169**	**10**	**3,087**

Strategic Planning

Cambodia had intended to release a National Mine Action Strategy (NMAS) for 2017–25 in 2016, but preparations stalled as a result of the CMAA's management reshuffle and a lack of direction which persisted in much of 2017. The management team put in place at the end of the year and with effect from the start of 2018 has, though, injected new momentum into the mine action sector with technical working group meetings on strategy and operations seeking to improve efficiency and accelerate land release.

Cambodia's new NMAS 2018–2025 was approved by the Prime Minister in December 2017 and officially launched at a national mine action conference in May 2018. The NMAS estimated that at the rate of progress achieved since 2014 Cambodia would need a little over 10 years to complete clearance of all known mined areas. It observed that to complete clearance of mined areas in eight years would require release of 110km^2 a year.[18]

The NMAS emphasises the need for more efficient use of demining assets. An early draft acknowledged that "a significant number" of mined areas cleared in 2016 either did not contain any mines or only contained mine types that experience showed had degraded and no longer functioned.[19] The observation echoed a finding by the Geneva International Centre for Humanitarian Demining (GICHD) in a 2016 report, citing official data that almost half the land released by full clearance or reduced by technical survey in 2015 contained no mines (26%) or very few (one to three) explosive hazards (23%).[20]

The strategy said planning and prioritisation should take device types into consideration, that clearance tasks should be prioritised on the basis of evidence from survey, and that donor funding should be directed to priority areas where communities are impacted by high-risk mine types that are likely to function.[21]

Cambodia's new strategy omitted many of the more critical assessments of progress included in the 2017 draft strategy but emphasised that "it is essential clearance assets are only deployed in areas where there is clear evidence of mines", reacting to a weakness in clearance operations in previous years. It said that, in future, clearance tasks should be prioritised on the basis of "effective" non-technical survey.[22] The strategy also seeks to ensure effective targeting of clearance assets by stipulating at least 75% of mine action funding should be allocated to communes selected by the CMAA as priority for clearance.[23]

Other issues under consideration by the CMAA and operators include achieving a better balance in the class of contamination being cleared. Operators acknowledge that although some areas classified as A4 (with scattered or nuisance mines) have proved to be heavily mined, more attention should be paid to clearing A1 areas (with dense anti-personnel mine contamination which accounted for just 3% of land cleared in 2017.[24]

The CMAA also prepared a three-year work plan for 2018–20 in which it set out more detailed land release objectives. The CMAA asked provincial MAPUs to identify priority villages for clearance over the next three years, using that as a starting point for identifying priority minefields. The three-year period also calls for completion of the baseline survey in 36 districts, a land reclamation study, and re-survey to identify mined areas that are in reclaimed land. Other goals include enhancing quality management by developing a performance monitoring system and developing a capacity for dealing with residual hazards after 2025.[25]

Legislation and Standards

Cambodia adopted a law prohibiting anti-personnel mines in May 1999 before ratifying the APMBC in July 1999 but does not have national mine action legislation.

Mine action is conducted according to Cambodian Mine Action Standards (CMAS) that are consistent with the International Mine Action Standards (IMAS). The National Mine Action Strategy calls for review, updating and developing standards on quality management and developing a CMAS on environment in line with IMAS.[26]

Quality Management

The CMAA is responsible for quality management and in 2017 deployed eight quality assurance (QA)/quality control (QC) teams.[27] In 2017, with UNDP support, it prepared a Performance Monitoring System (PMS) that will track land use and socio-economic changes after release of mine/ERW contaminated land as well as monitor the implementation of NMAS as a management tool for the sector. The CMAA approved the performance matrix in December and planned to test the system in 2018, with a view to rolling it out in 2019.[28]

Information Management

The CMAA manages a database that upgraded to operating Information Management System for Mine Action (IMSMA) New Generation in 2014 and receives regular operational progress reports from operators.

The GICHD reported in 2016 that the Database Unit staff "possess the skills and knowledge to realize solutions to the increasing analysis and reporting requirement of the CMAA management" and demonstrated a strong commitment to improving the quality of data.[29] However, reporting continues to be dogged by delays, and results released by the CMAA and by operators continued to show significant discrepancies in 2017, highlighting persistent challenges with information management that made it difficult to measure Cambodia's progress towards mine action targets.

Operators

Mine clearance is undertaken mainly by the national operator, CMAC, and two international mine action non-governmental organisations (NGOs), The HALO Trust and Mines Advisory Group (MAG). A second national NGO, Cambodian Self-help Demining (CSHD), has been active since 2011. The CMAA identified three commercial companies as accredited to operate in 2017, including BACTEC, D&Y, and MUCC.[30]

The CMAA reported 10 NPMEC units accredited with the CMAA in 2017 but NPMEC withdrew from demining due to its international peacekeeping commitments.[31]

LAND RELEASE

Cambodia appeared to have released marginally less mined land in 2017 than the previous year, although differences between CMAA and operator data suggest the official result may have understated the reality. The CMAA reported release of a total of 95km^2 of contaminated land in 2017, of which 65.5km^2 was mined area. That was well behind the target of releasing 110km^2 of mined area a year set by the NMAS with a view to completing clearance of known contamination by 2025.[32]

Table 4: Land release in 2015–17 (km^2)[33]

Year	Area cancelled by NTS	Area reduced by TS	Area cleared	Totals
2017	26.11	14.25	27.68	**68.04**
2016	28.93	14.48	25.33	**68.74**
2015	70.38	30.11	46.47	**146.96**

NTS = Non-technical survey TS = Technical survey

Survey in 2017

Operators released a little over 40km^2 through survey in 2017, according to CMAA data (see Tables 5 and 6), about 7% less than the previous year but, again, operators' reported results suggest the total may have been higher. The HALO Trust said it cancelled or reduced nearly 18km^2 and MAG 2.6km^2.[34]

Operators had expected the share of full clearance in overall land release would rise as non-technical survey caught up with the amount of reclaimed land identified in the BLS but CMAA and operators agree the minefields recorded in the database need to be resurveyed and reclassified under clear criteria to take account of continuing land reclamation. The CMAA was preparing to undertake this task through a land reclamation re-survey under its three-year implementation strategy. More than 80% of the area cancelled in 2017 was land with scattered mines, reinforcing once more the case for re-survey. Operators believe that re-survey will find that substantial areas which were identified by the BLS as contaminated are already under cultivation.[35]

Table 5: Release of mined area in 2017[36]

Operator	BLS polygons released	Area cancelled by NTS (m^2)	Area reduced by TS (m^2)	Area cleared (m^2)	Total release (m^2)
CMAC	628	10,115,391	11,691,812	17,137,164	38,944,367
CSHD	13	0	163,906	255,794	419,700
MAG	48	1,505,520	1,693,806	402,151	3,601,477
NPMEC	3	0	198,532	237,240	435,772
HALO	352	14,491,974	504,288	9,647,271	24,643,533
Totals	**1,044**	**26,112,885**	**14,252,344**	**27,679,620**	**68,044,849**

Clearance in 2017

Manual clearance released almost 27.7km^2 in 2017 according to the CMAA (see Table 6), slightly more (4%) than the previous year. The CMAA database records clearance of completed tasks on BLS polygons and it attributes discrepancies with results reported by operators to the fact they include clearance on tasks that are still active and to late delivery of results. CMAA clearance data may understate actual clearance as HALO Trust and MAG results showed they cleared a total of 12.7km^2 in 2017 (see Table 8), more than 50% above the area clearance attributed to them by the CMAA, and significantly more mines.[37]

After years of clearance targeting mainly areas of scattered contamination and often with few mines, the NMAS has identified a need to accelerate clearance of more densely contaminated A1 and A2.1 mined areas. That did not happen in 2017, when CMAA data shows that clearance of these areas amounted to nearly 1km^2 or less than 4% of land cleared manually (see Table 6), far behind the pace needed to achieve NMAS targets.

Table 6: Land release in 2017 by land classification and methodology (m^2)[38]

Classification	Cancelled by NTS (C1)	Reduced by TS (C2)	Area cleared (C3)	Total release (m^2)	AP mines destroyed	AV mines destroyed	ERW destroyed
A1 (Dense AP mines)	1,560,577	367,014	788,429	2,716,020	1,331	21	70
A2 (Mixed AP and AV mines)	1,509,594	284,789	1,679,803	3,474,186	594	10	226
A2-1 (Mixed dense AP/AV mines)	5,428	99,566	197,159	302,153	13	0	12
A2-2 (Mixed scattered AP/AV mines)	4,635,044	5,134,384	8,907,283	18,676,711	927	52	3,661
A3 (AV mines)	508,943	153,733	5,352,783	6,015,459	15	120	139
A4 (Scattered or nuisance mines)	16,546,983	5,222,774	10,281,346	32,051,103	2,638	40	6,716
B2 (Land with no verifiable mine threat)	1,346,316	2,990,084	472,817	4,809,217	262	11	558
Totals	**26,112,885**	**14,252,344**	**27,679,620**	**68,044,849**	**5,780**	**254**	**11,382**

CMAA data showed that CMAC, the biggest operator, cleared one-third more than in 2016, though the 17.9km^2 attributed to CMAC is only marginally more than the amount CMAC itself reported in 2016. The discrepancies illustrate persistent problems reconciling CMAA data with CMAC as well as with other operators. CMAC did not respond to requests for information.

The HALO Trust, employing more than 1,000 staff, continued to concentrate mine clearance operations in five western and northern border provinces and in 2017 deployed teams for the first time to the south-western province of Koh Kong. HALO Trust won a contract for clearance in Pailin under Clearing for Results but reported that clearance of around 1km^2 had resulted in destroying just three mines, underscoring the need for more stringent prioritisation and more targeted clearance.[39]

Table 7: Mine clearance in 2017[40]

Operator	Areas cleared	Clearance (m²)	AP mines destroyed	AV mines destroyed	UXO destroyed
CMAC	250	17,137,164	1,938	51	2,994
CSHD	10	255,794	235	0	169
MAG	10	402,151	631	13	14
NPMEC	1	237,240	373	0	277
HALO	172	9,647,271	2,136	176	6,927
Totals	**443**	**27,679,620**	**5,313**	**240**	**10,381**

MAG recorded a sharp rise in output in 2017, reporting release of 1.9km² by clearance compared with 0.3km² in 2016. This is more than four times the output reported by the CMAA. It attributed the result to restructuring mine action teams into small units, achieving greater operational flexibility and also to the use of Scorpion advanced detectors with funding from the United States Humanitarian Demining Research and Development Program. A small rise in funding enabled MAG to add one BAC team in 2018, bringing total staff numbers up to 246. In 2018, it expected to deploy more teams on heavily contaminated border clearance tasks.[41]

Table 8: 2017 clearance reported by HALO Trust and MAG[42]

Operator	Area cleared (m²)	AP mines destroyed	AV mines destroyed	UXO destroyed
HALO	10,771,931	3,581	171	583
MAG	1,913,766	708	0	229
Totals	**12,685,697**	**4,289**	**171**	**812**

Deminer Safety

The HALO Trust reported three accidents (one deminer killed and four others injured) in 2017. Another deminer was killed in early 2018. HALO Trust identified breaches of Standing Operating Procedures as the cause of the accidents.[43]

ARTICLE 5 COMPLIANCE

Under Article 5 of the APMBC (and in accordance with the 10-year extension granted by states parties in 2009), Cambodia is required to destroy all anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 January 2020. It will not meet this deadline.

Cambodia's draft mine action strategy for 2017–25 sets a target of completing clearance of known mine contaminated areas by 2025, but makes clear this is dependent on attracting donor support of around $400 million, averaging more than $40 million a year, much more than was received in recent years. Cambodia says it expects to fund mine action increasingly from domestic sources in coming years to compensate for the withdrawal of donors, but there was little sign of it yet supporting humanitarian clearance under the management of CMAA.

Donors provided US$30.4 million in 2017, approximately the same as the previous year, but funding from 2020 looked uncertain.[44] Close to half of 2017 funding was provided by Japan for CMAC. Although the United States maintained funding for the sector at about $2 million, survey and clearance of US legacy contamination in north-eastern provinces along the border with Vietnam has attracted increasing attention. China joined the list of donors in 2018, announcing it would provide a $2.5 million grant to CMAC.[45]

Table 9: Mine clearance in 2013–17[46]

Year	Area cleared (km²)
2017	27.68
2016	25.33
2015	46.47
2014[47]	54.38
2013	45.59
Total	**199.45**

1 HALO Trust, "Mine clearance in Cambodia – 2009", January 2009, p. 8.
2 Revised BLS data presented in statement of Cambodia to the Standing Committee on Mine Clearance, Geneva, 10 April 2014.
3 Data received by email from the CMAA, 22 May 2018.
4 Article 7 Report (for 2017), p. 9.
5 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2018.
6 Data received by email from CMAA, 22 May 2018.
7 Compiled from Cambodia Mine Victim Information System (CMVIS) casualty data for 2013–17.
8 "Cambodia sees decline in landmine/UXO casualties in 1st half of 2018", *Xinhua*, 22 August 2018, at: www.xinhuanet.com/english/2018-08/22/c_137410455.htm.
9 Compiled from CMVIS casualty data for the period 2016–17.
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 Interview with Prum Sophakmonkol, Secretary General, CMAA, Phnom Penh, 24 April 2018.
13 Ibid.; and "Review of MAPU-led prioritization decisions in CFRII target provinces, western Cambodia", Draft report, 24 January 2016, pp. 4 and 47.
14 Interview with Ly Thuch, then Secretary General, CMAA, Phnom Penh, 2 May 2017.
15 "Clearing for Results Phase II, Annual Report 2014", UNDP, undated but 2015, pp. 18–19. Results included contracts awarded in 2015 for release of 54.1km^2 at a cost of $4.9 million.
16 Interview with Edwin Faigmane, Chief Technical Adviser, UNDP, Phnom Penh, 24 April 2018; and email 18 September 2018.
17 Email from Edwin Faigmane, UNDP, Phnom Penh, 18 September 2018.
18 CMAA, "National Mine Action Strategy 2017–2025", undated but 2018, p. 9.
19 CMAA, "National Mine Action Strategy 2017–2025", Draft, 2017, pp. 18–19.
20 GICHD, "'Finishing the Job', an independent review of Cambodia's mine action sector", Geneva, 30 April 2016, pp. 41–42.
21 CMAA, "National Mine Action Strategy 2017–2025", Draft, 2017, p. 35.
22 CMAA, "National Mine Action Strategy 2017–2025", May 2018, pp. 8–9.
23 Ibid., p. 19.
24 Interview with Greg Crowther, MAG, Phnom Penh, 24 April 2018; data on results as at 21 July 2018. Email from Prum Sophakmonkol, CMAA, 3 September 2018.
25 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2018; CMAA, "Three Year Implementation Plan (2018–2020), undated but 2018.
26 CMAA, "National Mine Action Strategy 2017–2025", December 2017, pp. 14, 15.
27 Email from CMAA, 2 May 2017.
28 Interview with Edwin Faigmane, UNDP, Phnom Penh, 24 April 2018.
29 GICHD, "'Finishing the Job', an independent review of Cambodia's mine action sector", p. 58.
30 Email from CMAA, 2 May 2017.
31 Ibid.
32 Email from Prum Sophakmonkol, CMAA, 3 September 2018; CMAA, National Mine Action Strategy 2018–2025, p. 9.
33 Data for 2015 was compiled by Mine Action Review from results reported by CMAA and operators. Data for 2016 was received by email from CMAA, 2 May 2017. Data for 2017 was received by email from Ros Sophal, Deputy Database Manager, CMAA, 11 September 2018.
34 Email from the CMAA, 22 May 2018; Matthew Hovell, HALO Trust, 16 June 2018; and Greg Crowther, MAG, 11 May 2018.
35 Interviews with Greg Crowther, MAG, and Matthew Hovell, HALO Trust, Phnom Penh, 26 April 2018.
36 Email from Ros Sophal, CMAA, 11 September 2018.
37 Emails from Mathew Hovell, HALO Trust, 16 June 2018; and Greg Crowther, MAG, 11 May 2018.
38 Email from Ros Sophal, CMAA, 11 September 2018.
39 Interview with Matthew Hovell, HALO Trust, Phnom Penh, 26 April 2018; and email, 16 June 2018.
40 Email from Ros Sophal, CMAA, 11 September 2018.
41 Email from Greg Crowther, MAG, 11 May 2018.
42 Emails from Matthew Hovell, HALO Trust, 16 June 2018; and Greg Crowther, MAG, 11 May 2018.
43 Email from HALO Trust, 26 March 2018; and interview with Matthew Hovell, HALO Trust, Phnom Penh, 24 April 2018.
44 Email from CMAA, 11 May 2018.
45 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2018; Pech Sotheary, "China grants millions for mine clearance", *Khmer Times*, 28 May 2018.
46 Compiled by Mine Action Review from data provided by the CMAA and operators.
47 CMAA data reported 50.2km^2 released by full clearance in 2014.