

**ANTI-PERSONNEL MINE BAN CONVENTION ARTICLE 5 DEADLINE: 1 JANUARY 2020**  
EXTENSION REQUESTED TO 31 DECEMBER 2025

## KEY DATA

ANTI-PERSONNEL (AP)  
MINE CONTAMINATION:

**MASSIVE, 400 KM<sup>2</sup>** (ESTIMATED)  
AT LEAST

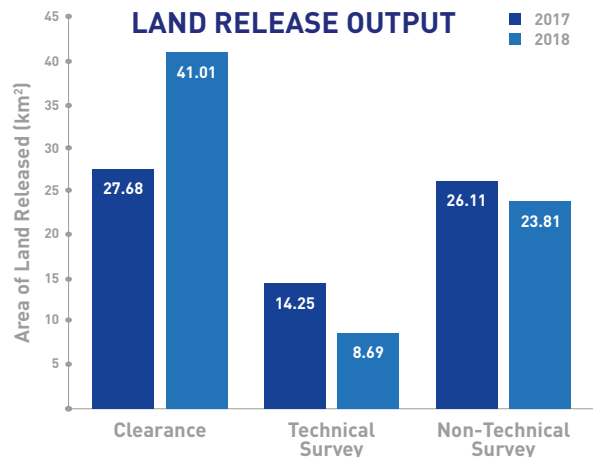
AP MINE  
CLEARANCE IN 2018

**41.01 KM<sup>2</sup>**

AP MINES  
DESTROYED IN 2018

**16,019**

(including 4,301 destroyed during spot tasks)



**CURRENT LIKELIHOOD OF MEETING 2025 CLEARANCE TARGET** (as per Maputo +15 Political Declaration aspiration): **LOW**

## KEY DEVELOPMENTS

Cambodia is working towards completing its baseline survey with 23 districts surveyed in 2018 and the remainder to be surveyed by 2020. This, along with the planned classification of mined areas into suspected hazardous areas (SHAs) and confirmed hazardous areas (CHAs), should improve Cambodia's understanding of the extent of remaining mine contamination. However, significant amounts of previously unrecorded contamination continue to be added to the database reducing the overall progress in land release.

In 2018, Cambodia launched its National Mine Action Strategy, Three-Year Implementation Plan, and Gender Mainstreaming in Mine Action Plan (GMAP 2018–22). The Cambodia Mine Action and Victim Assistance Authority (CMAA) continued to strengthen after a management shake-up in 2017. Cambodia submitted what is hoped to be its last Article 5 deadline extension request in March 2019. While progress is being made in planning, prioritisation, and land release, the target of completing anti-personnel mine clearance by 2025 is ambitious and will only be achieved with significantly increased funding and capacity.

## RECOMMENDATIONS FOR ACTION

- Cambodia should report outstanding anti-personnel mine contamination classified into SHAs and CHAs.
- Cambodia should proceed to review all newly added mined areas to cancel any uncontaminated areas from its database. It should introduce quality control of newly surveyed areas to ensure that mined areas are being identified through high-quality, evidence-based survey.
- Cambodia should continue to improve its information management systems by eliminating discrepancies with operator data and ensuring synchronisation of reporting.
- Cambodia should provide regular progress updates on the implementation of its Gender Mainstreaming in Mine Action Plan for 2018–22.
- Cambodia should agree with Thailand to complete its pilot border clearance project by end 2019.

# ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2018)	Performance Commentary
<b>UNDERSTANDING OF CONTAMINATION</b> (20% of overall score)	6	All outstanding mine contamination in Cambodia continues to be classified by the CMAA as SHA. Its own classification system disaggregates dense from scattered anti-personnel mine contamination. The baseline survey (BLS) of the remaining districts will be completed by 2020; survey of 23 districts was completed in 2018. While land reclamation and the BLS are cancelling uncontaminated land a substantial amount of previously unrecorded contamination continues to be added to the database.
<b>NATIONAL OWNERSHIP &amp; PROGRAMME MANAGEMENT</b> (10% of overall score)	8	The CMAA continued to strengthen in 2018. There is good, although at times superficial, consultation with operators and a permissive environment. The Cambodian government contributes national resources for mine action, but to achieve completion by 2025 it intends to seek additional international assistance.
<b>GENDER</b> (10% of overall score)	7	In 2018, Cambodia released its GMAP 2018–22, which is embedded in both its national mine action strategy and implementation plan. The aim is to increase female participation across the mine action sector.
<b>INFORMATION MANAGEMENT &amp; REPORTING</b> (10% of overall score)	6	Cambodia made improvements to its information management system in 2018 setting up a virtual private network to allow operators to input directly into the database. Strengthening information management is one of the goals of the national mine action strategy, but data inconsistencies and a high turnover of information management staff remain an issue.
<b>PLANNING AND TASKING</b> (10% of overall score)	7	Cambodia has a comprehensive National Mine Action Strategy 2018–25 with a detailed three-year implementation plan 2018–20. Cambodia has clear criteria and processes for the prioritisation of tasks, involving consultation with key stakeholders. Cambodia fell short of its land release target for 2018 but has set itself an even higher target for 2019.
<b>LAND RELEASE SYSTEM</b> (20% of overall score)	7	Cambodia's mine action standards are consistent with international mine action standards (IMAS) and reflected in operators' standing operating procedures (SoPs). Operators' clearance capacity increased in 2018 but Cambodia has estimated an additional 2,000 deminers will be needed to meet its land release targets. A wide range of assets are deployed for demining in Cambodia, including machines, dogs, and rats.
<b>LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE</b> (20% of overall score)	7	Overall land release output in Cambodia fell slightly in 2018 compared to the previous year, although clearance increased significantly. To reach its ambitious targets for 2025, Cambodia will need to secure additional funding and extra capacity and gain access to the non-demarcated border areas.
<b>Average Score</b>	<b>6.8</b>	<b>Overall Programme Performance: AVERAGE</b>

## DEMINING CAPACITY

### MANAGEMENT

- Cambodian Mine Action and Victim Assistance Authority (CMAA)

### NATIONAL OPERATORS

- Cambodian Mine Action Centre (CMAC)
- Cambodian Self-help Demining (CSHD)
- National Centre for Peacekeeping Forces Management, Mines and Explosive Remnants of War Clearance (NPMEC)

### INTERNATIONAL OPERATORS

- APOPO
- The HALO Trust
- Mines Advisory Group (MAG)

### OTHER ACTORS

- United Nations Development Programme (UNDP)
- Geneva International Centre for Humanitarian Demining (GICHD)
- Norwegian People's Aid (NPA)

## UNDERSTANDING OF AP MINE CONTAMINATION

As at December 2018, Cambodia estimates remaining anti-personnel mine contamination as over 890km<sup>2</sup> across 9,804 suspected hazardous areas (SHAs)<sup>1</sup> (see Table 1). The CMAA, which oversees the mine action database, operates its own classification system for anti-personnel mine contamination that disaggregates land containing a dense concentration of anti-personnel mines (A1) from land containing scattered anti-personnel mines (A4).<sup>2</sup> The CMAA only classifies contamination as SHA despite the operators classifying contamination into both SHAs and CHAs. In 2019, the CMAA planned to migrate CHA data resulting from the cluster munition remnant survey (CMRS) process into its database but has no plans to reclassify landmine data.<sup>3</sup>

The baseline survey (BLS) was originally conducted between 2009 and 2012 across 124 districts. As at July 2019, BLS activities were ongoing across districts that were not surveyed or were only partially surveyed during the original implementation period. At end 2018, according to Cambodia's National Mine Action Strategy 2018–2025, 23 districts had been surveyed and the remaining 50 were expected to be surveyed by 2020.<sup>4</sup> Most of these districts are in the central and eastern provinces which have a high concentration of contamination from explosive remnants of war (ERW) with moderate to little mine contamination.<sup>5</sup>

The CMAA and demining operators acknowledge that the BLS data are somewhat imprecise with contamination being found outside BLS polygons and substantial areas identified by the BLS now under cultivation.<sup>6</sup> The CMAA analysed land release data and found that, on average, 32% of land classified as A1, and 51% of land classified as A4 had been reclaimed.<sup>7</sup> In 2015, the CMAA introduced the land reclamation non-technical survey and baseline survey (LRNTS+BLS) methodology, a stand-alone process to re-survey or re-verify SHAs identified during the BLS. In 2015–18, the LRNTS+BLS has led to release of more than 44.4km<sup>2</sup> of anti-personnel mined area across 1,076 SHAs.<sup>8</sup> According to Cambodia's Three-Year Implementation Plan, LRNTS will be conducted in 12,000 polygons across the country between 2018 and end 2020 and will continue if sufficient funding is available.<sup>9</sup>

Cambodia has extensive contamination from mines and ERW left by 30 years of conflict that ended in the 1990s. It is estimated that four million anti-personnel mines were laid after the fall of the Khmer Rouge in 1979 until the end of the internal armed conflict in 1998. Cambodia's anti-personnel mine problem is concentrated in, but not limited to, 21 north-western districts along the border with Thailand, which account for the large 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 mine contamination in the world.<sup>10</sup>

Cambodia also has significant contamination from cluster munition remnants (CMR) and other ERW. In 2018, CMR contamination was estimated at 738km<sup>2</sup> while ERW contamination was estimated at 468km<sup>2</sup> (see Mine Action Review's *Clearing Cluster Munition Remnants 2019* report on Cambodia for further information).

**Table 1: AP mined area by province (at end 2018)<sup>11</sup>**

Province	SHAs	Area (m <sup>2</sup> )
Banteay Meanchey	2,547	172,665,603
Battambang	1,898	213,133,756
Kampong Cham	12	976,234
Kampong Chhnang	52	4,158,738
Kampong Speu	424	48,236,143
Kampong Thom	556	56,448,570
Kampot	137	12,486,197
Kandal	2	63,203
Kep	6	641,691
Kratie	361	24,092,367
Koh Kong	103	19,041,908
Mondul Kiri	46	7,476,491
Oddar Meanchey	1,092	120,169,272
Palin	532	34,012,575
Phnom Penh	13	1,122,444
Preah Sihanouk	22	1,681,420
Preah Vihear	480	34,786,425
Prey Veng	1	5,900
Pursat	521	44,982,657
Ratanak Kiri	20	2,690,487
Siem Reap	813	76,906,134
Svay Rieng	94	9,394,723
Takeo	56	3,770,625
Tboung Khmum	16	1,493,673
<b>Totals</b>	<b>9,804</b>	<b>890,437,236</b>

### NEW CONTAMINATION

The LRNTS+BLS has also led to the identification of 1,363 SHAs of previously unrecorded anti-personnel mine contamination, covering a total area of 117.9km<sup>2</sup>.<sup>12</sup> In 2018 alone, the LRNTS+BLS captured 39.4km<sup>2</sup> over 499 SHAs of additional contamination, see Table 2.<sup>13</sup> The CMAA has stated that it is working with the database unit and operators to investigate all newly added mine contamination.<sup>14</sup> The CMAA's Department of Regulation and Monitoring and its quality management teams (QMTs) have been tasked with an increased focus on baseline survey operations to ensure that previously unrecorded mined areas added to the national

database are supported by strong and clear evidence and are of an appropriate size. In addition, the Database Unit will review newly captured mined areas and verification will be conducted by the QMTs on any questionable polygons. The CMAA will also hold an annual meeting with operators to discuss baseline survey and resurvey activity to ensure that they are conducted in accordance with the national standard. The meeting will also cover land release methods to strengthen their application and to ensure a consistent approach is taken by all operators.<sup>15</sup>

**Table 2: Newly added anti-personnel mined area in 2018<sup>16</sup>**

Province	Operator	SHAs	Area (m <sup>2</sup> )
Banteay Meanchey	CMAC	112	8,068,216
Banteay Meanchey	HALO Trust	34	1,068,551
Battambang	CMAC	55	5,917,685
Battambang	MAG	23	1,902,392
Battambang	HALO Trust	8	577,817
Kampong Speu	HALO Trust	21	1,840,533
Kampong Thom	CMAC	19	1,496,981
Oddar Meanchey	CSHD	1	15,333
Oddar Meanchey	HALO Trust	42	6,032,885
Pailin	CMAC	40	2,759,137
Pailin	CSHD	1	15,557
Pailin	MAG	6	595,108
Pailin	HALO Trust	11	676,796
Preah Vihear	CMAC	10	947,450
Preah Vihear	HALO Trust	14	559,141
Pursat	CSHD	1	38,417
Pursat	HALO Trust	14	667,802
Siemreap	CMAC	81	5,306,041
Siemreap	CSHD	1	159,932
Siemreap	HALO Trust	5	712,504
<b>Totals</b>		<b>499</b>	<b>39,358,278</b>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The CMAA was established by royal decree in 2000 with the mandate to regulate, monitor and coordinate the mine action sector in Cambodia.<sup>17</sup> Cambodian Prime Minister Hun Sen is the CMAA President and Senior Minister Ly Thuch its First Vice-President, overseeing the authority. Former CMAA Secretary-General, H.E. Prum Sophakmonkol, who was moved to the Ministry of Foreign Affairs in 2016, was reappointed to the position with effect from the start of January 2018 bringing extensive experience and knowledge of mine action to planning and operations. It has been reported that the CMAA has strengthened over the past two years, with roles and responsibilities more clearly defined.<sup>18</sup>

The Cambodian Mine Action Centre (CMAC) was established in 1992, ostensibly as the national mine action centre. Before the existence of the CMAA, it had the responsibilities to regulate and coordinate the sector as well as undertake clearance. Since 2000, CMAC's activities have been limited to conducting demining, risk education, and training.<sup>19</sup> CMAC conducts both humanitarian and commercial demining within Cambodia and is the country's largest operator.<sup>20</sup>

In 2004, the Cambodian government passed Sub-decree 70 on the Socio-Economic Management of Mine Clearance Operations, which established the Provincial Mine Action Committees (PMACs) and the Mine Action Planning Units (MAPU). The PMACs and MAPUs were tasked with establishing clearance priorities in consultation with the

affected communities to ensure that clearance addresses their housing, agricultural and infrastructure needs.<sup>21</sup>

The Cambodian government established the Technical Working Group on Mine Action (TWG-MA) as a consultative mechanism between the government and development partners. The Mine Action Coordination Committee (MACC) and several Technical Reference Groups (TRGs) have been established by the CMAA to facilitate coordination and feedback at a strategic and technical level in areas such as survey and clearance, risk education, victim assistance, information management, gender, and capacity development.<sup>22</sup>

Consultation is built into every stage of Cambodia's Three-Year Implementation Plan 2018–20 and operators provide input into key strategic documents through open discussion forums and written feedback.<sup>23</sup> However, it has been reported that at times the process can be rather superficial, with feedback not necessarily taken into account.<sup>24</sup> The operating environment in Cambodia is permissive, with the Cambodian government open to the presence of international operators and supportive in administrative actions such as the granting of visas, approval of Memoranda of Understanding (MoUs), and importation procedures. The CMAA is open to the trialling and use of innovative clearance methods and tools to improve efficiency.<sup>25</sup>

The UN Development Programme (UNDP), Norwegian People's Aid (NPA), and the Geneva International Centre for Humanitarian Demining (GICHD) all provide capacity development support to the CMAA. NPA, as part of a United Kingdom Department for International Development (DFID)-funded partnership that includes Mines Advisory Group (MAG) and The HALO Trust, focuses on information management, planning and prioritisation, gender mainstreaming, quality management, and strategic planning.<sup>26</sup>

UNDP is in the third phase of its "Clearing for Results" programme, which was due to come to an end in 2019, although UNDP has put together a proposal for phase four of the programme from 2020 to 2025 which would focus on institutional capacity development as well as clearance. Its key capacity development deliverables are to support the development of the National Mine Action Strategy 2018–2025, establish a Performance Monitoring System (PMS) that links human development to mine action, and strengthen the CMAA's international and national participation in relevant fora.<sup>27</sup> In 2019, UNDP is commissioning consultants to assess the CMAA's institutional capacities and develop a comprehensive Capacity Development Plan. The Plan will also inform the development of a formal partnership strategy following the recommendations of a mid-term review that found that capacity development needed to be institutional rather than individual and that there was a lack of coordination among capacity development stakeholders.<sup>28</sup>

The GICHD provides information management and risk management support to the CMAA.<sup>29</sup> In 2018, the GICHD presented a case study on the Management of Residual ERW in Cambodia, and hosted a Long Term Risk Management workshop and an exchange visit between the CMAA and the national mine action centre in Sri Lanka.<sup>30</sup>

The Cambodian government contributes funding towards clearance and the management of the sector.<sup>31</sup> From 2010 to 2018, the Cambodian government has reported contributing just under 30% of the total funding to the mine action sector (US\$99.49 million of US\$340.2 million).<sup>32</sup> This includes US\$110 million for mine clearance operations in support of public infrastructure projects such as hydropower plants, irrigation system, roads, and bridges. Cambodia has also provided funding to the institutions responsible for managing and delivering mine action in the country. Indirectly, tax exemptions on mine action equipment has contributed to humanitarian demining operations, the CMAA reports.<sup>33</sup> From 2020 to 2025, Cambodia has estimated it will require \$372 million for mine action, of which \$38 million is for sector management and \$165 million for release of anti-personnel mined area. It is expected that the Cambodian government will continue to contribute towards clearance and the management of the sector. It will also settle the importation taxes for mine clearance equipment and provide a 10% in-kind contribution to any new donor funding, and a 10% in-cash contribution to the UNDP Clearing for Results programme.<sup>34</sup> Cambodia has a resource mobilisation strategy and intends to secure additional funding from the government, existing and emerging donors, and the private sector.<sup>35</sup>

## GENDER

The CMAA has developed a Gender Mainstreaming in Mine Action Plan (GMAP 2018–2022), an objective of the National Mine Action Strategy 2018–2025, which consists of six goals. These include:

- Preparation of guidelines to aid gender mainstreaming across all mine action
- Capacity building of relevant stakeholders to implement the GMAP 2018–2022
- Female representation and participation in planning and prioritisation, risk education, and in mine action and advocacy at all levels.

The Three-Year Implementation Plan 2018–2020 sets out activities in support of these goals.<sup>36</sup> NPA, as part of its capacity development, will support the CMAA with training on gender mainstreaming in mine action, on implementation of the GMAP 2018–22 and the development of associated guidelines, and on how to use gender- and age-disaggregated data in planning and prioritisation processes.<sup>37</sup> As at March 2019, across all operators engaged in demining, women accounted for just 21% of staff overall.<sup>38</sup>

CMAC provides equal employment opportunities to both men and women. As at April 2019, women made up 10.5% of CMAC's workforce. CMAC operates in accordance with Cambodian Labour Law and is actively recruiting women to reach 15% female employment. Women currently work across all levels of the organisation, including in managerial level/supervisory positions. As at April 2019, two of the six directors were women.<sup>39</sup>

The HALO Trust and MAG both have organisational gender and diversity policies. Within MAG, Cambodia's staff handbook contains guidelines on equal opportunities and diversity but, as at May 2019, no specific national policy or implementation plan had been elaborated. One of MAG Cambodia's key strategic objectives in 2019–20 is to focus on "meaningful" gender mainstreaming and gender equity within the programme. The programme will closely review recruitment policies and procedures to identify areas in which MAG can further encourage the recruitment and retention of women, as well as their development and promotion into more senior positions.<sup>40</sup> MAG's community liaison teams are gender balanced to ensure full representation of all groups during data-collection and community liaison activities. In MAG's survey and clearance teams 42% of staff are female, while 21% of their managerial level/supervisory positions are staffed by women.<sup>41</sup>

As at May 2019, 44% of HALO Trust's operational staff were women while only 8% of HALO Trust's staff in managerial level/supervisory positions were female. HALO has mixed gender survey, risk education and clearance teams.<sup>42</sup>

## INFORMATION MANAGEMENT AND REPORTING

The CMAA upgraded to the Information Management System for Mine Action (IMSMA) New Generation in 2014. The CMAA Database Unit (DBU) is responsible for collecting, storing, analysing and disseminating data in support of planning and prioritisation.<sup>43</sup>

The CMAA shares all available data with operators on a monthly basis. In 2018, the DBU set up a virtual private network (VPN), which allows operators to send their daily data input directly into the DBU IMSMA database. The DBU controls the quality of all submitted reports and approves them via this online network.<sup>44</sup> Information management remains a challenge, though, with incompatibilities between operator databases and IMSMA, and inconsistencies between operator data and the data held by the CMAA.<sup>45</sup> Strengthening the national information management system for mine action is an objective of Goal 8 of the National Mine Action Strategy 2018–25.<sup>46</sup>

Cambodia submits timely Article 7 transparency reports and gives regular statements on progress at the APMBC meetings of states parties. There have, though, been issues with the accuracy of information in Cambodia's reporting in the past, evidenced by discrepancies between data submitted by operators and that offered by the CMAA. To reduce further discrepancies, as at September 2019, the CMAA has officially declared that all relevant mine action stakeholders should only report official mine action data from CMAA.<sup>47</sup> In 2019, Cambodia submitted a six-year Article 5 deadline extension request from 1 January 2020 to 31 December 2025. Cambodia's extension request was submitted on time and is comprehensive, outlining achievements in 2010–18, the extent of the remaining challenge, its workplan to 2025, and its financial requirements. The CMAA has provided updated land release data for 2018 to Mine Action Review which differs from the land release data for 2018 submitted in its latest Article 7 report and 2019 Article 5 deadline extension request.

## PLANNING AND TASKING

Cambodia's National Mine Action Strategy 2018–2025 was officially launched in May 2018 with eight goals for clearance of mines, CMR, and other ERW. The accompanying Three-Year Implementation Plan 2018–20 sets out the activities and indicators that will need to be completed in order to meet these goals and objectives. The first goal is to release all known mined areas by 2025 through planned land release of 110km<sup>2</sup> a year.<sup>48</sup> Cambodia fell well short of this target for 2018, releasing only 65.8km<sup>2</sup>.<sup>49</sup> In 2019, Cambodia submitted its Article 5 extension request with revised land release targets for 2019–25, as set out in Table 3. The targets seem arbitrary to say the least, and assume no contamination will be added, a highly questionable supposition.

**Table 3: Annual targets for release of mined area in 2019–25<sup>50</sup>**

Year	Targets (m <sup>2</sup> )
2019	84,250,000
2020	110,000,000
2021	110,000,000
2022	146,546,809
2023	146,546,809
2024	146,546,809
2025	146,546,809
<b>Total</b>	<b>890,437,236</b>

The CMAA maintains the annual clearance workplan made up of all the provincial clearance workplans. The MAPU is responsible for developing these workplans in accordance with the planning and prioritisation guidelines. The PMAC approves the workplans, which are then endorsed by the CMAA. The MAPU uses the provincial workplan to monitor clearance performance and report progress to the PMAC and the CMAA.<sup>51</sup>

The CMAA pursues a national mine action policy that is said to be "people centred", balancing top-down policy-making with bottom-up community-up requirements.<sup>52</sup> The CMAA establishes an annual list of priority villages based on area of BLS, casualty data, levels of poverty, and population size in accordance with the revised planning and prioritisation guidelines. At least 75% of funding and resources are allocated to these villages. The MAPU then develops a list of priority minefields within these villages, in consultation with operators, according to BLS land classification, casualty data, intended beneficiaries, level of threat, development needs and post-clearance land use.<sup>53</sup> In accordance with objective three of goal one of Cambodia's National Mine Action Strategy 2018–25, the CMAA has identified 500 priority villages that will be released by 2021.<sup>54</sup>

Operators have expressed some reservations about the "mine-free village" approach with MAG advocating a province-by-province approach and The HALO Trust prioritising clearance of the highest impact, highest density minefields in the K5 minebelt. The HALO Trust has expressed concerns that the mine-free village approach will lead to clearance of low-impact, low-density minefields in order to declare the village mine-free, diverting resources from high impact areas.<sup>55</sup> MAG's concerns that impact should be taken into account in the prioritisation criteria have been noted by CMAA who have stated that there will be some degree of flexibility in the planning and prioritisation process.<sup>56</sup> The CMAA has stated it does not believe that high-density minefields should be the deciding factor for prioritisation as they believe the "mine-free village" approach addresses the needs of the affected communities.<sup>57</sup>

Goal seven of the national mine action strategy focuses on establishing a sustainable national capacity to address residual contamination after 2025. Objectives include reviewing by 2020 the legal, institutional and operational framework, strategy, and capacity needed to address the residual threats.<sup>58</sup> The CMAA have stated that it is likely that the Royal Cambodian Army (RCA) will be tasked with addressing explosive threats after 2025.<sup>59</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Mine action is conducted according to Cambodian Mine Action Standards (CMAS), which are consistent with the International Mine Action Standards (IMAS). In 2018, a new CMAS on cluster munition remnant survey (CMRS) was adopted.<sup>60</sup> From 2019-21, the CMAA, with support from NPA, was planning to develop new standards – on animal detection, mechanical demining, information management, quality management, the environment, victim assistance and mine risk education – and to review the standards on accreditation of demining organisations and licensing of operations and on the monitoring of demining organisations.<sup>61</sup> All operators will be consulted as part of this process and will provide feedback on any proposed modifications.<sup>62</sup>

National standards are reflected in operators' standing operating procedures (SoPs).<sup>63</sup> Updates to the SoPs are conducted as and when required, such as when a need is identified through the CMAA-led Technical Reference Group. Reviews are conducted in consultation with all operators, and against IMAS and best practice.<sup>64</sup>

The National Mine Action Strategy 2018–25 emphasises the need for more efficient use of demining assets. A 2016 review by the GICHD found that almost half the land released by full clearance or technical survey in 2015 contained no mines (26%) or very few (one to three) explosive items (23%).<sup>65</sup> In 2018, over 3.8km<sup>2</sup> was cleared without any anti-personnel mines being found.<sup>66</sup> While in a 2018 monitoring visit to Pailin province it was found that one in three of the mined areas could have been released by LRNTS rather than full clearance. UNDP has now mandated that all minefields in its targeted villages will be re-surveyed before clearance assets are deployed.<sup>67</sup> The CMAA recognises that for Cambodia to complete clearance by 2025 the full toolbox of land release methodologies must be properly applied and encourages operational efficiency amongst operators.<sup>68</sup> As at September 2019, the CMAA was planning to review the CMAS on baseline survey to strengthen the criteria on the evidence needed to capture polygons with new contamination. In addition, the CMAA will improve efficiency of the quality management team to strengthen quality assurance (QA) and quality control (QC) of survey and clearance activities.<sup>69</sup>

### OPERATORS

Mine clearance is undertaken mainly by the national operator, CMAC, and two international mine action non-governmental organisations (NGOs), MAG and The HALO Trust. To a lesser extent, mine clearance is also conducted by national operator the National Centre for Peace Keeping Forces, Mine and ERW Clearance (NPMEC), and by national NGO, Cambodian Self-help Demining (CSHD). International operator APOPO also conducts clearance in partnership with CMAC.<sup>70</sup>

In 2018, CMAC deployed 25 non-technical survey personnel across five teams, the same as in 2017. In 2019, there were no plans to deploy non-technical survey teams. CMAC also deployed a total of 202 technical survey personnel across 30 teams of between five and seven staff each. This was an increase from the 187 staff deployed across 27 teams in 2017. In 2019, the number of technical survey personnel was due to increase to 231 across 37 teams. In 2018, CMAC deployed 1,248 clearance personnel, an increase of 7% from the 1,164 clearance personnel deployed in 2017. This decreased to 1,037 clearance personnel in 2019.<sup>71</sup>

In 2018, the HALO Trust deployed 45 personnel in nine teams of five, conducting non-technical survey, risk education and explosive ordnance disposal (EOD) callouts. HALO Trust considers technical survey equivalent to clearance so does not deploy separate personnel. In 2018, HALO deployed an average of 760 personnel per month for clearance (730 in teams and 30 in supervisory roles). There was no change in capacity from 2017 and HALO did not expect a change in 2019.<sup>72</sup>

In 2018, MAG deployed a total of 228 personnel for mine survey and clearance. There was a significant increase from the 152 personnel in 2017 due to increased donor support with no significant change in numbers expected in 2019. MAG also deployed 15 community liaison staff, including its cluster munition remnant capacity, who undertake non-technical survey and risk education alongside other activities. This was an increase from the 11 staff deployed in 2017, with no change in capacity expected in 2019.<sup>73</sup>

UNDP has supported the CMAA through the Clearing for Results (CFR) programme since 2006, awarding contracts funded by international donors through a process of competitive bidding.

In 2018, the CFR programme issued four contracts worth a total of \$1.43 million: three going to CMAC and the other to The HALO Trust. CMAC was also awarded land reclamation non-technical survey and baseline survey contracts worth about US\$180,000.<sup>74</sup> In 2019, CMAC was awarded three clearance contracts totalling \$1.06 million dollars with clearance targeted in high-priority villages in Battambang, Banteay Meanchey, and Pailin provinces. As at April 2019, CFR was on track to exceed the target of 47km<sup>2</sup> of mined areas located in the most affected and poorest provinces are impact-free.<sup>75</sup>

The CMAA has calculated that in order to meet its 2025 land release targets for anti-personnel mined area, an extra 2,000 deminers and 100 support personnel will be needed. The CMAA proposes that these deminers will come from the RCA and that the Cambodian government will cover the salaries, insurance, uniforms, and operational costs with additional funding from the international community. It is estimated that during the first year of deployment the deminers will be able to release 35km<sup>2</sup>, rising to 57km<sup>2</sup> from the second year.<sup>76</sup> As at August 2019, two meetings had been held between the CMAA and the Commander of the RCA. It was agreed during the second meeting in June 2019 to establish a Task Force comprising of officials from the CMAA and the RCA and to formulate a Memorandum of Understanding (MoU) which has since been drafted and shared for review.<sup>77</sup>

The CMAA is responsible for quality management and since 2016 has deployed eight quality assurance (QA)/quality control (QC) teams.<sup>78</sup> In 2017, with UNDP support, it developed the PMS, which will track land use and socio-economic changes after release of mined area/ERW-contaminated land as well as monitor the implementation of NMAS as a management tool for the sector.<sup>79</sup> The CMAA approved the PMS, which was launched in May 2018 and in 2019 a pilot-test was planned for 122 completed minefields in Banteay Meanchey province. The pilot test will allow the CMAA to finalise the PMS output and outcome matrix, data collection tools, and reporting templates.<sup>80</sup> It is planned that use of half of the mined areas cleared in 2018 will be tracked by the PMS; these areas were to be selected by the end of 2019.<sup>81</sup>

## OPERATIONAL TOOLS

In 2018, The HALO trust deployed three mechanical clearance teams and a remote-controlled vegetation cutter for ground preparation.<sup>82</sup>

MAG used mine detection dogs (MDDs) subcontracted from CMAC to conduct survey and clearance. Mechanical assets were used to conduct both ground preparation and clearance with seven mechanical teams in total. MAG also continues to trial advanced detection systems, provided by the United

States Humanitarian Demining Research and Development programme, and uses drones to conduct non-technical survey, task planning, and post-impact monitoring.<sup>83</sup>

APOPO provides CMAC with mine detection rats (MDR). In 2018, MDRs were used for clearance in Siem Reap and Preah Vihear provinces working together with vegetation-cutting machines and manual deminers. At the end of 2018, seven teams in total were working in the programme.<sup>84</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2018

A total of almost 73.51km<sup>2</sup> of mined area was released in 2018, of which 41.01km<sup>2</sup> was cleared, 8.69km<sup>2</sup> was reduced through technical survey, and 23.81km<sup>2</sup> was cancelled through non-technical survey. Over the course of the year, however, 39.4km<sup>2</sup> of previously unrecorded mine contamination across 499 SHAs was added to the database.

### SURVEY IN 2018

In 2018, just under 32.5km<sup>2</sup> was released through survey, of which 23.81km<sup>2</sup> was cancelled through non-technical survey (see Table 4) and almost 8.69km<sup>2</sup> through technical survey (see Table 5). This is a 20% drop from the 40.37km<sup>2</sup> released through survey in 2017.

Overall non-technical survey output decreased by almost 9% from 2017 to 2018 although the figures provided by CMAA differ from the figures provided by operators by 154,150m<sup>2</sup>.<sup>85</sup> Both CMAC and HALO Trust reported a decrease in non-technical survey output, this reduction was most pronounced for CMAC and was due to a reduction in their non-technical survey capacity.<sup>86</sup> MAG reported increased output due to increased non-technical capacity, and a greater proportion of polygons that had already been ploughed three times, therefore meeting the cancellation criteria.<sup>87</sup>

Overall technical survey output fell by 39% from 2017 to 2018 although there was a marked difference in the figures provided by the CMAA when compared to the operators.<sup>88</sup> CMAC reported that it had reduced almost 21.6km<sup>2</sup> of land in 2018, significantly more than the 14.7km<sup>2</sup> reported by the CMAA.<sup>89</sup>

**Table 4: Cancellation of mined area through non-technical survey in 2018<sup>90</sup>**

Province	Operator	Area cancelled (m <sup>2</sup> )
Banteay Meanchey	CMAC	1,944,335
Banteay Meanchey	HALO Trust	1,478,095
Battambang	CMAC	1,001,713
Battambang	HALO Trust	670,599
Battambang	MAG	4,839,639
Kampong Chhnang	HALO Trust	204,199
Kampong Speu	HALO Trust	1,671,965
Oddar Meanchey	HALO Trust	7,025,640
Pailin	CMAC	192,281
Pailin	HALO Trust	770,774
Pailin	MAG	764,542
Preah Vihear	HALO Trust	23,150
Pursat	HALO Trust	321,327
Siem Reap	CMAC	580,901
Siem Reap	HALO Trust	2,323,016
<b>Total</b>		<b>23,812,176</b>

**Table 5: Reduction by technical survey of anti-personnel mined area in 2018<sup>91</sup>**

Province	Operator	Area reduced (m <sup>2</sup> )
Banteay Meanchey	CMAC	277,406
Banteay Meanchey	HALO Trust	42,083
Battambang	CMAC	6,464,971
Battambang	CSHD	15,162
Battambang	HALO Trust	128,761
Battambang	MAG	1,319,649
Oddar Meanchey	HALO Trust	23,926
Pailin	CMAC	75,084
Pailin	HALO Trust	235,859
Pailin	MAG	53,587
Siem Reap	CSHD	50,502
<b>Total</b>		<b>8,686,990</b>



## CLEARANCE IN 2018

Overall technical survey output fell by 39% from 2017 to 2018 although there was a marked difference in the figures provided by the CMAA when compared to the operators.<sup>92</sup> CMAC reported that it had reduced almost 21.6km<sup>2</sup> of land in 2018 a massive 14.7km<sup>2</sup> more than was reported by CMAA.<sup>93</sup>

In 2018, during EOD spot tasks, a total of 4,301 anti-personnel mines were destroyed: 2,193 by HALO Trust, 1,457 by CMAC, 374 by CSHD, and 277 by MAG.<sup>94</sup>

**Table 6: Mine clearance in 2018<sup>95</sup>**

Province	Operator	Areas cleared	Area cleared (m <sup>2</sup> )	AP mines destroyed	AV mines destroyed	UXO destroyed
Banteay Meanchey	CMAC	162	5,181,424	1,066	5	603
Banteay Meanchey	HALO Trust	97	3,353,242	1,640	21	27
Battambang	CMAC	299	22,737,788	3,334	29	3,028
Battambang	HALO Trust	23	578,396	269	0	10
Battambang	MAG	88	246,001	343	25	100
Kampong Thom	CMAC	9	1,068,029	35	0	99
Kampong Thom	CSHD	4	31,667	2		4
Oddar Meanchey	CSHD	3	92,782	13		20
Oddar Meanchey	HALO Trust	70	1,761,619	2,187	2	5
Pailin	CMAC	33	2,097,716	319	2	485
Pailin	CSHD	2	11,089	10		11
Pailin	HALO Trust	37	747,655	407	2	10
Pailin	MAG	16	77,157	323		3
Preah Vihear	CMAC	19	1,314,475	1,233	0	217
Preah Vihear	CSHD	1	29,959	59		2
Preah Vihear	HALO Trust	3	127,390	2	6	0
Pursat	CSHD	2	43,539	72		17
Pursat	HALO Trust	13	446,242	302	4	32
Siem Reap	CMAC	22	923,495	80	0	98
Siem Reap	CSHD	3	78,626	22		35
Siem Reap	HALO Trust	25	57,023	0	0	0
<b>Totals</b>		<b>931</b>	<b>41,005,314</b>	<b>11,718</b>	<b>96</b>	<b>4,806</b>

## ARTICLE 5 DEADLINE AND COMPLIANCE



**Table 7: Five-year summary of AP mine clearance (2014–18)**

Year	Area cleared (m <sup>2</sup> )
2018	41,005,314
2017	27,680,000
2016	25,330,000
2015	46,470,000
2014 <sup>96</sup>	54,380,000
<b>Total</b>	<b>194,865,314</b>

Cambodia has committed to clearing all anti-personnel mine contamination by the end of 2025. It plans to steadily increase annual land release output from 84km<sup>2</sup> in 2019 to 110km<sup>2</sup> from 2020 to 2021, when 500 priority villages will be declared mine free, to 146.5km<sup>2</sup> from 2022 to 2025. Cambodia has released an average of 84km<sup>2</sup> per year since the 2014 Maputo Conference, so the land release targets it has set itself are very ambitious and require both additional funding and capacity. Cambodia has stated it will require an average of US\$62 million for sector management and clearance of mines, CMR, and other ERW.<sup>97</sup> From 2010 to 2018, Cambodia was averaging \$42.5 million in funding from the government and donor community, which would mean a 45% annual increase in funding.<sup>98</sup> While Cambodia expects to increase funding from domestic and private sources in the coming years there will still be a funding shortfall without increased donor support. The CMAA is working with the Convention's Committee on Enhancement of Cooperation and Assistance to seek support from states parties under the individualised approach with the first meeting planned for the Fourth Review Conference in November 2019.<sup>99</sup> In addition to the increased funding Cambodia has also calculated that it will need an extra 2,000 deminers to complete anti-personnel mine clearance by 2025. It is proposed that these deminers will come from the RCA.<sup>100</sup>

Cambodia has made improvements to its planning and prioritisation system and implemented more targeted and efficient land release methodologies.<sup>101</sup> However, the significant amounts of previously unrecorded contamination being added to the database hampers land release progress. It is vital that Cambodia ensures through quality management processes that anti-personnel mine contaminated land is only being identified through high-quality evidence-based survey and that land without contamination is not being added to the database.

The high-density K5 minefield lies along the Cambodian-Thai border some of which is not demarcated and where access is limited.<sup>102</sup> Improved relations between Thailand and Cambodia have opened the way for increased border cooperation. The Thailand-Cambodia General Border Committee, chaired by the Deputy Prime Minister and Minister of Defence from both countries, has agreed that CMAC and the Thailand Mine Action Centre (TMAC) can cooperate to conduct demining along the Thai-Cambodian border.<sup>103</sup> In September 2018, CMAC and TMAC met and agreed to find a task for a pilot project, a small area that could be cleared within a month as a symbolic demonstration of two sides working together. As at April 2019, the task had yet to be decided but CMAC hoped to complete the pilot project by the end of the year.<sup>104</sup>

- 1 APMBC Article 7 Report (for 2018), Point 4.
- 2 2019 Article 5 deadline Extension Request, Annex 1.
- 3 APMBC Article 7 Report (for 2018), Point 4; and email from Tep Kallyan, Deputy Secretary General, CMAA, 19 September 2019.
- 4 2019 Article 5 deadline Extension Request, p. 3.
- 5 CMAA, National Mine Action Strategy 2018–2025, p. 1.
- 6 Interviews in Phnom Penh with Prum Sophakmonkol, Secretary General, CMAA, 24 April 2018; and Greg Crowther, MAG, and Matthew Hovell, HALO Trust, 26 April 2018; Su Yeon Yang, Conflict Prevention Officer, and Tong Try, Senior National Project Officer, UNDP, 23 April 2019; and Heng Rattana, Director General, CMAC, 25 April 2019.
- 7 CMAA, National Mine Action Strategy 2018–2025, p. 8.
- 8 2019 Article 5 deadline Extension Request, p. 21.
- 9 Ibid., p. 42; and CMAA, Three-Year Implementation Plan 2018–2020, Phnom Penh, undated but 2018, p. 2.
- 10 CMAA, National Mine Action Strategy 2018–2025, p. 1; and The HALO Trust, "Where we work: Cambodia", accessed 10 July 2019, at: [bit.ly/313jTKs](http://bit.ly/313jTKs).
- 11 Ibid.
- 12 2019 Article 5 deadline Extension Request, p. 21.
- 13 Article 7 Report (for 2018), Form 4.
- 14 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 15 2019 Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 2.
- 16 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 17 CMAA, "Legal framework and mandate", at: [bit.ly/2W7r3dJ](http://bit.ly/2W7r3dJ).
- 18 Interviews with Su Yeon Yang, and Tong Try, UNDP, 23 April 2019; and Rebecca Letven, Country Director, MAG, Phnom Penh, 25 April 2019.
- 19 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018.
- 20 Interview with Heng Rattana, CMAC, Phnom Penh, 25 April 2019.
- 21 GICHD, "Landmines and Land Rights in Cambodia", December 2010, pp. 9 and 13.
- 22 CMAA, National Mine Action Strategy 2018–2025, p. 24; and email from Tong Try, UNDP, 18 June 2019.
- 23 2019 Article 5 deadline Extension Request, pp. 146–50; and emails from Rebecca Letven, MAG, 9 May 2019; and Damian O'Brien, Programme Manager, HALO Trust, 10 April 2019.
- 24 Interview with Heng Rattana, CMAC, 25 April 2019.
- 25 Emails from Zlatko Vezilic, NPA, 4 April 2019; Rebecca Letven, MAG, 9 May and 28 June 2019; and Damian O'Brien, HALO Trust, 10 April 2019.
- 26 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 27 UNDP, "Clearing for Results Phase III project document", 17 December 2015; and interviews with Su Yeon Yang, Conflict Prevention Officer, and Tong Try, Senior National Project Officer, UNDP, 23 April 2019.
- 28 UNDP, "Clearing for Results Phase III Annual Report", 2018.
- 29 GICHD, "Cambodia", at: [bit.ly/2W6J1xc](http://bit.ly/2W6J1xc).
- 30 Email from Rob White, Advisor, Strategic Management & Residual Contamination, GICHD, 3 July 2019.
- 31 2019 Article 5 deadline Extension Request, p. 12.
- 32 Ibid., p. 6.

- 33 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 34 Ibid.
- 35 Ibid.
- 36 CMAA, Three-Year Implementation Plan 2018–2020, Phnom Penh, undated but 2018, p. 14.
- 37 DFID Capacity Development Report, Activity Detail Extract, 18 September 2018.
- 38 2019 Article 5 deadline Extension Request, Additional Information, undated but August 2019, Table 18.
- 39 CMAC, "20 Years' Achievement in Mine Action 1998-2018 and Path Ahead", 2018; and interview with Heng Rattana, CMAC, Phnom Penh, 25 April 2019.
- 40 Email from Rebecca Letven, MAG, 9 May 2019.
- 41 Ibid.
- 42 Email from Damian O'Brien, HALO Trust, 10 April 2019.
- 43 CMAA, National Mine Action Strategy 2018–2025, p. 22.
- 44 Email from Rebecca Letven, MAG, 9 May 2019; and interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 45 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019; and email from Prum Suonpraseth, CMAC, 1 July 2019.
- 46 CMAA, National Mine Action Strategy 2018–2025, pp. 14–15.
- 47 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 48 Three-Year Implementation Plan 2018–20, p. 3.
- 49 Article 7 Report (for 2018), Form 4.
- 50 2019 Article 5 deadline Extension Request, p. 8.
- 51 Ibid., p. 5.
- 52 Interview with Prum Sophakmonkol, Secretary General, CMAA, Phnom Penh, 24 April 2018.
- 53 2019 Article 5 deadline Extension Request, pp. 30–31; and email from Damian O'Brien, HALO Trust, 10 April 2019.
- 54 2019 Article 5 deadline Extension Request, p. 9.
- 55 Interview with Lasha Lomidze, Operations Manager, HALO Trust, 3 May 2019.
- 56 Email from Rebecca Letven, MAG, 9 September 2019.
- 57 2019 Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 4.
- 58 CMAA, National Mine Action Strategy 2018–2025, p. 14.
- 59 2019 Article 5 deadline Extension Request, Additional Information, undated but August 2019, p. 5.
- 60 UNDP, "Clearing for Results Phase III Annual Report", 2018.
- 61 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 62 Email from Zlatko Vezilic, NPA, 4 April 2019.
- 63 Ibid.; and email from Rebecca Letven, MAG, 9 May 2019.
- 64 Emails from Rebecca Letven, MAG, 9 May 2019; and Damian O'Brien, HALO Trust, 10 April 2019.
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- 66 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
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- 68 2019 Article 5 deadline Extension Request, p. 43.
- 69 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 70 2019 Article 5 deadline Extension Request, p.48.
- 71 Email from Prum Suonpraseth, CMAC, 21 June 2019.
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- 78 Email from CMAA, 2 May 2017.
- 79 Interview with Edwin Faigmane, UNDP, Phnom Penh, 24 April 2018.
- 80 UNDP, "Clearing for Results Phase III Annual Report", 2018; and email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 81 Interview with Su Yeon Yang, Conflict Prevention Officer, and Tong Try, Senior National Project Officer, UNDP, 23 April 2019.
- 82 Email from Damian O'Brien, HALO Trust, 10 April 2019.
- 83 Emails from Rebecca Letven, MAG, 9 May and 28 June 2019.
- 84 APOPO, Progress Report 2018, p. 1.
- 85 The HALO Trust reported cancellation of 13,339,825m<sup>2</sup> (-1,148,940m<sup>2</sup>); MAG reported cancellation of 5,397,859m<sup>2</sup> (-206,322m<sup>2</sup>); CMAC reported cancellation of 4,920,342m<sup>2</sup> (+1,201,112).
- 86 Emails from Damian O'Brien, HALO Trust, 10 April 2019; and Prum Suonpraseth, CMAC, 15 August 2019.
- 87 Email from Rebecca Letven, MAG, 9 May 2019.
- 88 The HALO Trust did not report any reduction by technical survey as they consider it equal to clearance; MAG reported reduction of 353,783m<sup>2</sup> (-1,019,453m<sup>2</sup>); CMAC reported reduction of 21,551,407m<sup>2</sup> (+14,733,946m<sup>2</sup>).
- 89 Email from Prum Suonpraseth, CMAC, 15 August 2019.
- 90 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 91 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 92 The HALO Trust did not report any reduction by technical survey as they consider it equal to clearance; MAG reported reduction of 353,783m<sup>2</sup> (-1,019,453m<sup>2</sup>); CMAC reported reduction of 21,551,407m<sup>2</sup> (+14,733,946m<sup>2</sup>).
- 93 Email from Prum Suonpraseth, CMAC, 15 August 2019.
- 94 Ibid.
- 95 Email from Prum Sophakmonkol, CMAA, 11 September 2019.
- 96 CMAA data reported 50.2km<sup>2</sup> released by full clearance in 2014.
- 97 2019 Article deadline 5 Extension Request, p. 55.
- 98 Ibid., p. 34.
- 99 Ibid., p. 14.
- 100 Interview with Prum Sophakmonkol, CMAA, Phnom Penh, 24 April 2019.
- 101 2019 Article 5 deadline Extension Request, p. 41.
- 102 Ibid., p. 38.
- 103 Email from Shushira Chonhenchob, NPA (on behalf of Lt-Gen. Sittipol Nimnuan, TMAC), 8 April 2019.
- 104 Interview with Heng Rattana, CMAC, Phnom Penh, 25 April 2019.