

## KEY DATA

### ANTI-PERSONNEL (AP) MINE CONTAMINATION: UNKNOWN

AP MINE  
CLEARANCE IN 2021

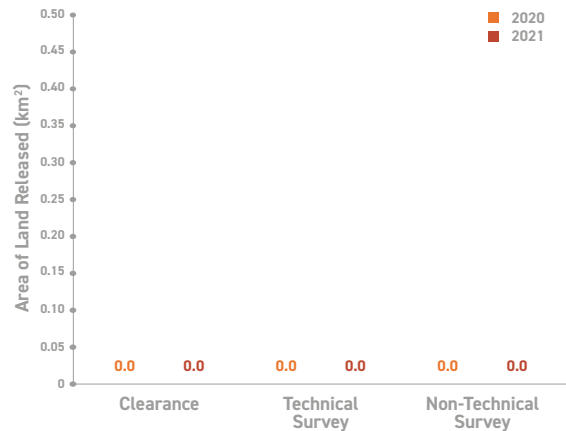
**0<sub>M</sub><sup>2</sup>**

AP MINES  
DESTROYED IN 2021

**56**

(BASED ON NATIONAL  
AUTHORITY DATA)

## LAND RELEASE OUTPUT



## RECOMMENDATIONS FOR ACTION

- The Lao People's Democratic Republic (Lao PDR) should accede to the Anti-Personnel Mine Ban Convention (APMBC) as a matter of priority.
- Lao PDR should clear anti-personnel mines in areas under its jurisdiction or control as soon as possible, consonant with its obligations under international human rights law.
- In light of the continuing reports by clearance operators of anti-personnel mines being encountered during cluster munition remnant survey (CMRS) and roving tasks, the National Regulatory Authority (NRA) should consider convening a sector-wide meeting to discuss National Standards, accreditation, and procedures for addressing all mine contamination. This process might benefit from the establishment of a technical working group specifically for landmines.
- Lao PDR should ensure that its Information Management System for Mine Action (IMSMA) database disaggregates data on landmines, distinguishing anti-personnel mines from anti-vehicle mines.
- The NRA should adopt the new Safe Path Forward III strategy for the sector for 2021–30 as soon as possible.

## DEMINING CAPACITY

### MANAGEMENT CAPACITY

- National Regulatory Authority (NRA) Board
- National Regulatory Authority (NRA)

### NATIONAL OPERATORS

- UXO Lao
- Humanitarian teams of the Lao People's Army (Army 58)
- Commercial operators

### INTERNATIONAL OPERATORS

- The HALO Trust
- Humanity and Inclusion (HI)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)
- Commercial operators

### OTHER ACTORS

- Asian Regional Mine Action Center (ARMAC)
- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- Tetra Tech

## UNDERSTANDING OF AP MINE CONTAMINATION

While by far the greatest contamination in Lao PDR is from explosive remnants of war (ERW), in particular cluster munition remnants (CMR) (see the *Clearing Cluster Munition Remnants 2022* report on Lao PDR for further information), Lao PDR is also contaminated by anti-personnel and anti-vehicle mines. The extent of mine contamination is not known. During the Indochina conflict of the 1960s and 1970s, all sides in the war laid anti-personnel mines, particularly around military installations and patrol bases. Mined areas also exist in some border regions as a legacy of disputes or tensions with or within neighbouring countries.<sup>1</sup>

A Humanity and Inclusion (formerly Handicap International, HI) survey in 1997 found mines in all 15 provinces it surveyed, contaminating 214 villages.<sup>2</sup> As at March 2022, HI had identified 54 suspected and confirmed minefields in 22 villages in Houaphanh district of Houaphanh province, where it is currently operating.<sup>3</sup>

Anti-personnel mines discovered included United States (US)-manufactured M7, M16, and M14 mines, Vietnamese MBV-78A1 mines, and Soviet POMZ mines.<sup>4</sup> Across Lao PDR as a whole, the NRA has reported that “gravel mines” (US air-dropped anti-personnel mines) had all degraded, but remaining mine types included M14 anti-personnel blast mines, M16 bounding fragmentation mines, M18 claymore mines, and M15 and M19 anti-vehicle mines, Soviet or Chinese PMN anti-personnel blast mines, POMZ fragmentation stake mines, and TM41, TM46, and TM57 anti-vehicle mines.<sup>5</sup>

The remote location of many mined areas means that mines have little impact and are not a clearance priority. Of 81,646 items of explosive ordnance destroyed in 2021, only 56 (less than 0.07%) were mines.<sup>6</sup> The NRA, however, has observed that “with a steady expansion of land use ‘mined areas’ will become areas for growing concern.”<sup>7</sup>

## PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since 2006, has an interministerial board composed of representatives from government ministries and is chaired by the Minister of Labour and Social Welfare.<sup>8</sup> The Prime Minister of Lao PDR approved a new decree, “On the Organisation and Operations of the National Regulatory Authority for UXO in Lao PDR” in February 2018. The decree defines the position, role, duties, rights, organisational structure, and the working principles and methods of the NRA.<sup>9</sup>

The NRA acts as the coordinator for national and international clearance operators and serves as the national focal point for the sector. This includes overall management and consideration of policy, planning, projects, and coordination of the implementation of the national strategy nationwide, as well as NRA planning and coordination functions at the provincial and district levels.<sup>10</sup> The current director of the NRA has been in post since June 2019.<sup>11</sup>

The main focus of the NRA is on addressing the massive contamination from CMR and other ERW. However, responsibility for the clearance of mined areas in Lao PDR is also led by the NRA.<sup>12</sup>

The United Nations Development Programme (UNDP) provides programmatic and technical support to the NRA and UXO Lao, including with regard to information sharing and coordination.<sup>13</sup> Further capacity development in information management (IM), quality management (QM), logistics, and operations support is provided, primarily to UXO Lao, and to a lesser extent the NRA, through a US-funded contractor, Tetra Tech.<sup>14</sup> HI provides capacity development support to the provincial NRA in Houaphanh province.<sup>15</sup>

1 NRA website, “UXO types: Mines”, accessed 9 March 2020 (page no longer online).

2 Handicap International, “Living with UXO, National Survey on the Socio-Economic Impact of UXO in Lao PDR”, Vientiane/Brussels, 1997, p. 7.

3 Email from Julien Kempeneers, Humanitarian Mine Action Coordinator, 30 March 2022.

4 Emails from Julien Kempeneers, HI, 27 August 2019, and 25 March and 29 June 2020.

5 NRA website, “UXO types: Mines”, 9 March 2020 (page no longer online).

6 Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (covering 2021), Form A; Convention on Cluster Munitions (CCM) Article 7 Report (covering 2021), Form F.

7 NRA website, “UXO types: Mines”, 9 March 2020 (page no longer online).

8 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

9 Government Decree No. 67, dated 12 February 2018; CCM Extension Request 2019, Part B, Detailed Narrative, p. 17; and Statement of Lao PDR on National Implementation Efforts, CCM Eighth Meeting of States Parties, Geneva, 3 September 2018.

10 CCM Extension Request 2019, Part B, Detailed Narrative, p. 18.

11 Email from Olivier Bauduin, US PM/WRA, 29 September 2020.

12 Email from Douangsy Thammavong, Deputy Director, NRA, 20 June 2022.

13 Email from Rupert Leighton, Chief Technical Advisor, UNDP, 12 September 2022.

14 Emails from Nigel Orr, Technical Advisor Survey and Clearance, Tetra Tech, 14 June 2019; and Simon Rea, Lao PDR Task Order Leader, Tetra Tech, 16 August 2022; and “US Renews Partnership with Lao PDR to Build Capacity in UXO Sector”, US Embassy in Lao PDR, 31 January 2020, at: <http://bit.ly/2Lzm68J>.

15 Email from Julien Kempeneers, HI, 30 March 2022.

In 2021, UXO Lao received capacity development support through various implementing partners as follows:

- Annual work plan formulation and confirmed hazardous area (CHA) prioritisation system; Excel training for asset management officers; project management training for mid-level management, and an exchange programme on IM and QM between UXO Lao and the Cambodian Mine Action Centre (CMAC) through South-South Cooperation, all supported by the Japan International Cooperation Agency (JICA).
- Communications training, supported by UNDP.
- Vallon VMH4 detector training, supported by Tetra Tech.<sup>16</sup>

A UXO Sector Working Group (SWG), led by the chair of the NRA board, and co-chaired by UNDP and the US Ambassador in Vientiane, which normally meets biannually, brings together key stakeholders, including donors.<sup>17</sup> There were

two SWG meetings in 2021 – in June and November.<sup>18</sup> Other meetings were convened by UNDP on the draft Safe Path Forward III Strategy.<sup>19</sup>

International clearance operators continued to have good cooperation and coordination with the NRA at the national level, and at provincial and district levels.<sup>20</sup> Humanitarian clearance operators are involved in key decision-making processes by the NRA, including through participation in sector meetings and Technical Working Groups (TWGs), sector meetings, and through fruitful discussions during other formal and informal meetings and field visits.<sup>21</sup> One of the biggest challenges encountered by operators in Lao PDR continues to be the procedure for MoUs, which remains lengthy, complex, and labour-intensive (see the *Clearing Cluster Munition Remnants 2022* report on Lao PDR for further information).

## ENVIRONMENTAL POLICIES AND ACTION

Lao PDR has a National Mine Action Standard (NMAS) on Environmental Management (chapter 21), but it is in need of revision. The NMAS refers to outdated national laws on environmental protection, rather than the current national environmental legal framework with which UXO sector activities should comply.<sup>22</sup> It is hoped that the new Safe Path Forward III Strategy, which was still being finalised as at July 2022, will incorporate key environmental issues discussed during its drafting, such as waste management; water and waste-water management; protection of biodiversity and ecologically sensitive areas; impact assessment, monitoring, and reporting; and green office models in relation to UXO operations.<sup>23</sup>

UXO Lao does not currently have an environmental management standing operating procedure (SOP), but said that the environment is taken into consideration during demining, in particular with respect to mine contamination.<sup>24</sup> Tetra Tech is supporting UXO Lao to revise their operations SOPs and said the revision will include a chapter on environmental management.<sup>25</sup>

For details regarding measures being taken by international clearance operators to minimise potential harm to the environment from survey and clearance operations, please see the *Clearing Cluster Munition Remnants 2022* report on Lao PDR.

## GENDER AND DIVERSITY

For details regarding gender and diversity in Lao PDR's survey and clearance programme, please see the *Clearing Cluster Munition Remnants 2022* report on Lao PDR.

<sup>16</sup> Email from Noupin Phimmasy, Deputy Chief of Programme Office and Public Information Unit, UXO Lao, 4 June 2022.

<sup>17</sup> Interview with Phil Bean, US PM/WRA, and Olivier Bauduin, Sterling International, in Geneva, 14 February 2018; CCM Extension Request 2019, Part B, Detailed Narrative, pp. 4 and 25; and email from Blossum Gilmour, Programme Manager, MAG, 21 March 2019.

<sup>18</sup> Emails from Rebecca Letven, Country Director, MAG, 30 March 2022; Cameron Imber, Programme Manager, HALO Laos, 31 March 2022; and Katherine Harrison, Programme Coordinator, NPA, 11 May 2022.

<sup>19</sup> Email from Katherine Harrison, NPA, 11 May 2022.

<sup>20</sup> Emails from Rebecca Letven, MAG, 30 March 2022; Cameron Imber, HALO Laos, 31 March 2022; Katherine Harrison, NPA, 11 May 2022; and Julien Kempeneers, HI, 30 March 2022.

<sup>21</sup> Emails from Simon Rea, Regional Director, South and South East Asia, MAG, 17 June 2020; Rebecca Letven, MAG, 30 March 2022; Katherine Harrison, NPA, 6 May 2020 and 31 March 2021; and Cameron Imber, HALO Laos, 31 March 2022.

<sup>22</sup> Email from Katherine Harrison, NPA, 11 May 2022.

<sup>23</sup> Ibid.

<sup>24</sup> Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

<sup>25</sup> Email from Simon Rea, Tetra Tech, 16 August 2022.

## INFORMATION MANAGEMENT AND REPORTING

In November 2019, Lao PDR stated at the Fourth Review Conference of the Anti-Personnel Mine Ban Convention (APMBC) in Oslo, that it was in the process of preparing a voluntary APMBC Article 7 report.<sup>26</sup> However, as at July 2022, a voluntary report had yet to be submitted. The only voluntary Article 7 report submitted previously by Lao PDR, was in 2011.

As yet, no distinction is made in the Information Management System for Mine Action (IMSMA) database in the NRA between anti-personnel mines and anti-vehicle mines.<sup>27</sup>

For details regarding Information Management and Reporting in Lao PDR's survey and clearance programme more broadly, please see the *Clearing Cluster Munition Remnants 2022* report on Lao PDR.

## PLANNING AND TASKING

As part of efforts to implement the Convention on Cluster Munitions (CCM) Vientiane and Dubrovnik Action Plans, the Lao Government adopted "Safe Path Forward II, 2011–20", a 10-year national strategy for the UXO sector. The strategy's goal was "to reduce the humanitarian and socio-economic threats posed by UXO to the point where the residual contamination and challenges can be adequately addressed by a sustainable national capacity fully integrated into the regular institutional set-up of the Government."

Through its funding of the agreement between Tetra Tech and the NRA, the United States continued to "support the Lao Government as it formulates its 10-year National Strategic Plan for the UXO Sector, a plan that will map the path to achieving SDG 18 – the elimination of UXO as a barrier to national development by 2030."<sup>28</sup>

A new national strategic plan for the UXO Sector has been in the process of elaboration for 10 years, in line with SDG 18 under the 2030 SDG agenda. UNDP provided support to the NRA in elaboration of a new National Strategy for the UXO Sector (2021–30), "The Safe Path Forward III" in 2021, including a joint online consultation on the draft strategy in October 2021.<sup>29</sup> A new draft of the strategy was presented to stakeholders in February 2022.<sup>30</sup> At the CCM Intersessional Meetings in May 2022, Lao PDR announced that "Safe Path Forward III" was expected to be adopted in June 2022.<sup>31</sup> As at August, it had been finalised and was being translated into English.<sup>32</sup>

It is not known to what extent the new "Safe Path Forward III", will include addressing anti-personnel (and anti-vehicle) mine contamination.

## LAND RELEASE SYSTEM

Lao PDR's National Standards make a clear distinction between UXO clearance (including CMR) and mine clearance, and for the purposes of the National Standards, "UXO does not include hand-laid mines but it may include disposal of 'one off' mines located during EOD roving tasks."<sup>33</sup> As such, the National Standard on UXO clearance only relates to UXO clearance operations and not to mine clearance operations.<sup>34</sup>

According to Lao PDR's National Standard on Mine Clearance Operations (Chapter 12), "the systematic locating and clearing of hand-laid mines in known or suspected mined areas, are not commonly conducted in Lao PDR. However, it is known that mined areas exist in Lao PDR and at some stage in the future these areas will have to be cleared."<sup>35</sup>

According to Chapter 7 of the National Standards, if a mine is located during UXO clearance, work is immediately ceased and "the clearance supervisor should then assess the situation and determine if the mine is a random one or part of a mined area. If the mine is assessed as being part of a mined area, work on the site is to cease and the matter reported to the tasking authority. Details of mined areas are to be reported by the clearance organisation concerned to the NRA head office and the NRA provincial office."<sup>36</sup>

The standards also note that: "Some relatively small-scale mine clearance has been carried out by UXO Lao and by commercial operators in the past but mine clearance operations are not regularly carried out as a deliberate mine action activity in Lao PDR."<sup>37</sup>

26 Statement of Lao PDR, Fourth APMBC Review Conference, Oslo, 29 November 2019.

27 Emails from Mark Frankish, UNDP, 26 August 2020; and Rupert Leighton, UNDP, 10 August 2022.

28 "US Renews Partnership with Lao PDR to Build Capacity in UXO Sector", US Embassy in Lao PDR, 31 January 2020.

29 Statement of Lao PDR on National Implementation Measures, Second CCM Review Conference (Part 1, virtual meeting), 25–27 November 2020; and email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.

30 Emails from Cameron Imber, HALO Laos, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; and Rebecca Letven, MAG, 30 March 2022.

31 Statement of Lao PDR on National Implementation Measures, CCM Intersessional meetings, Geneva, 16–17 May 2022.

32 Interview with Chomyaeng Phengthongsawat, NRA, in Geneva, 31 August 2022.

33 Lao PDR National UXO/Mine Action Standards (NS), "Chapter 0: Introduction and Glossary", accessed on NRA website on 29 July 2021, p. xi.

34 Lao PDR NS, "Chapter 7: UXO Clearance Operations", accessed on NRA website on 29 July 2021, p. 5.

35 Lao PDR NS, "Chapter 12: Mine Clearance Operations", accessed on NRA website on 29 July 2021, p. 5.

36 Lao PDR NS, "Chapter 7: UXO Clearance Operations", p. 13.

37 Lao PDR NS, "Chapter 12: Mine Clearance Operations", accessed on NRA website on 29 July 2021, p. 5, note 1.

According to the National Standards: "Mine clearance operations are considerably more dangerous than UXO area clearance operations and the requirements and procedures for mine clearance are more stringent. When mine clearance operations are necessary, they are only to be carried out by accredited mine clearance organisations with personnel with the appropriate training and equipment and specific mine clearance operating procedures."<sup>38</sup>

With respect to landmines, the National Standards are in need of being brought up to date in accordance with the latest International Mine Action Standards (IMAS). According to its reporting under Protocol V of the Convention on Certain Conventional Weapons (CCW), the standards section of the NRA reviews the national standards at least every three years and all mine action stakeholders are invited to participate in these reviews. According to Lao PDR's CCW transparency report, UXO/mine action organisations and other UXO/mine action stakeholders are encouraged to make written recommendations for changes to the national standards at any time, on which the NRA will seek input from other stakeholders and consider the recommendation and the inputs received.<sup>39</sup>

The HALO Trust and HI have both provided the NRA with suggested amendments to the national standards regarding landmine survey and clearance.<sup>40</sup> NRA has said that the national standards related to anti-personnel mines were being reviewed,<sup>41</sup> however as at March 2022, no updates had yet to be made to the national standards or operating procedures with respect to mines.<sup>42</sup>

While the current national standards do already allow for mine clearance and set parameters for safe distances and other relevant issues, there is a need to strengthen national institutional knowledge on mine clearance, including in relation to quality assurance (QA) and training.<sup>43</sup>

Non-governmental organisation (NGO) clearance operators in Lao are not currently formally accredited for mine clearance and permission for explosive ordnance disposal (EOD) is given on a case by case basis when landmines are found.<sup>44</sup> UXO Lao said that in collaboration with Tetra Tech, it was focused on revising its SOP with respect to addressing mine contamination. It expected the updated SOP to have been completed by the end of 2022.<sup>45</sup> The HALO Trust drafted a

mine clearance SOP and submitted it for approval to the NRA in 2021.<sup>46</sup> As at March 2022, HALO had yet to receive any feedback on the SOP, however, it had received the tacit approval of the NRA for mine clearance to commence. HALO Trust's first dedicated mine clearance teams were deployed in November 2021.<sup>47</sup>

Over the course of 2021, HALO Laos has significantly increased its mine-threat survey and clearance capacity. This has involved training a non-technical survey team to focus solely on collecting information related to landmines and delineating mined areas. This has also involved the completion of three mine clearance operator courses that trained 42 staff to conduct manual demining. As at March 2022, two HALO mine clearance teams were conducting operations on the first dedicated mine clearance task in Laos PDR, a former Royal Lao Army military base in Phalanxai district, Savannakhet province, with significant contamination from fragmentation mines. HALO said that it was eager to work with the NRA and other operators to help them build capacity in this area. Representatives from the NRA and HI participated in HALO's mine clearance operator course which took place in June 2022.<sup>48</sup>

HI reported that there had been good coordination between HALO Trust and HI EOD experts to discuss methodologies, equipment, detectors, and training stakes.<sup>49</sup> HI believes that reporting on the presence of landmines needs to be strengthened. Furthermore, HI highlighted that in practice, determining whether a mine is part of a bigger mined area can prove challenging, especially if field-based personnel are not trained (or equipped) to address anti-personnel mine contamination.

Landmines may, for example, have been left behind, moved by villagers, or washed away by water, and areas where there is no strong evidence that further mines are planted or emplaced might be reported or wrongly interpreted as mined areas.<sup>50</sup> At the July 2019 TWG meeting on clearance, HI proposed an addendum to the national standard to help address this.<sup>51</sup> Landmines have been a regular topic of discussion in subsequent TWG meetings, and HI believed it would be useful to have a TWG with the NRA and interested operators, specifically for landmines, as had been suggested by the NRA at one point.<sup>52</sup> However, as at July 2022, no such TWG had yet been established.

38 Lao PDR NS, "Chapter 12: Mine Clearance Operations", accessed on NRA website on 29 July 2021, p. 5.

39 CCW Protocol V Article 10 Report (covering 2022), Form F.

40 Emails from Cameron Imber, HALO Laos, 31 March 2022; and Julien Kempeneers, HI, 30 March 2022.

41 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.

42 Email from Douangsy Thammavong, NRA, 20 June 2022.

43 Email from Rebecca Letven, MAG, 26 March 2021.

44 Emails from Julien Kempeneers, HI, 30 March 2022; Cameron Imber, HALO Laos, 31 March 2022; Katherine Harrison, NPA, 6 May 2020; and Rebecca Letven, MAG, 30 March 2022.

45 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.

46 Email from Cameron Imber, HALO Laos, 14 March 2021.

47 Email from Cameron Imber, HALO Laos, 31 March 2022.

48 Ibid; and email from Olivier Bauduin, US PM/WRA, 23 August 2022.

49 Email from Julien Kempeneers, HI, 30 March 2022.

50 Emails from Julien Kempeneers, HI, 27 August 2019 and 30 March 2022.

51 Email from Julien Kempeneers, HI, 27 August 2019.

52 Email from Julien Kempeneers, HI, 16 March 2021.

HI is proposing that, in the National Standard on Survey (Chapter 6), areas shall only be designated as a "Suspected Mined Area" if there is evidence that the landmines have detonated or if people have observed mines there. If a single mine is found or destroyed, and there are no other signs or evidence of landmines in the area, a mine report must be created.<sup>53</sup>

HI further discussed this issue with the Director of the NRA during a visit to Houamuang district in March 2020 and recommended that the National Standards could be expanded to include the suggestion that, "if a landmine is found in undeveloped land it shall be assumed to be part of a minefield" and "if the landmine is found in well-developed land it can be assumed to be a random one". HI also noted, however, that "additional information should be gathered to add weight to the conclusions; namely the location of wartime military bases and location of other landmine finds",<sup>54</sup> as well as whether mines discovered by members of the local community had been moved.

In addition, HI believes that the NRA should coordinate and organise training, and adjust the standards accordingly, with regard to CMRS in areas also affected by mines.

Demographic pressures regarding land will lead to people accessing remote places that could be mined. Action on locating and recording mined areas needs to occur before the older generations that know about the presence of landmines disappear.<sup>55</sup>

With respect to spot tasks, HI will only destroy mines that are clearly identified in a spot task location where it can be accessed safely.<sup>56</sup> If mines are discovered during cluster munition survey or clearance operations, the task is immediately suspended and the discovery reported to HI's Operations Manager, who then visits the site to assess the situation. If the discovered mine was not emplaced and was found in land used for agriculture it is destroyed. Additional information is obtained about the threat of mines from the landowner and a risk assessment conducted before deciding whether or not operations are allowed to resume. If the mine found is emplaced and is in an area which has not been developed, the task is halted, additional data collected, and external boundaries of the site are tentatively identified (historically safe tracks). A mine report is then submitted by HI to the NRA.<sup>57</sup>

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## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

### LAND RELEASE OUTPUTS IN 2021

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The NRA reported to Mine Action Review that planned clearance of mined areas was conducted during 2021, led by the NRA.<sup>58</sup> However, no additional details were provided except that 56 mines were destroyed from a total of 81,646 items of explosive ordnance.<sup>59</sup> This compares to 32 mines in 92,299 items of UXO destroyed in 2020.<sup>60</sup> No anti-vehicle mines were discovered or destroyed in 2021.<sup>61</sup>

The data reported to Mine Action Review by humanitarian clearance operators (see Table 1) varied from the NRA data and totalled 64 anti-personnel mine discovered<sup>62</sup> (nine of which were not destroyed by the operator as it was not possible to approach them safely). Table 1, which is based on operator data, does not include the Lao People's Army (Unit 58), which destroyed three anti-personnel mines in 2021 according to the NRA.<sup>63</sup>

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53 Email from Julien Kempeneers, HI, 30 March 2022.

54 Emails from Julien Kempeneers, on behalf of Yvon Le Chevanton, HI, 25 March 2020; and Minla Nanthavong, HI, 2 August 2021.

55 Email from Julien Kempeneers, HI, 25 March 2020.

56 Ibid.

57 Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, HI, 25 March 2020.

58 Email from Douangsy Thammavong, NRA, 20 June 2022.

59 Ibid.; CCW Protocol V Article 10 Report (covering 2021), Form A; CCM Article 7 Report (covering 2021), Form F; and NRA Annual Project Progress Report for 2021 reporting period.

60 Email from Chomyaeng Phengthongsawat, NRA, 21 June 2021.

61 Email from Douangsy Thammavong, NRA, 20 June 2022.

62 Emails from Cameron Imber, HALO Laos, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, Programme Manager, MAG, 30 March 2022; Katherine Harrison, NPA, 11 May 2022; and email from Noupin Phimmasy, UXO Lao, 4 June 2022.

63 Email from Douangsy Thammavong, NRA, 20 June 2022.

Table 1: Mines discovered in 2021 (based on operator data)<sup>64</sup>

Clearance operator	Emplaced anti-personnel mines	Emplaced anti-vehicle mines	Comments
HALO	23	0	Nine anti-personnel mines were discovered and destroyed while conducting mine-threat-specific non-technical survey. A further nine were discovered during non-technical survey, but were not destroyed as they could not be approached safely. One mine was discovered during mine clearance operations and four mines were discovered by teams responding to EOD call-outs.
HI	9	0	One M16 landmine was identified and destroyed during Clearing While Surveying (although the fuze was no longer in place) and eight mines were destroyed during EOD spot task call-outs from communities or non-technical survey.
MAG	4	0	Two anti-personnel mines were found and destroyed during clearance and two during roving spot tasks, the latter of which MAG assessed had either been physically moved or more likely rolled down a slope due to effects of heavy rain.
NPA	0	1	One type M7-A2 anti-vehicle mine was discovered and destroyed during a roving spot task.
UXO Lao	28	0	Seven anti-personnel mines were found and destroyed during non-technical survey, eleven during technical survey, three during area clearance, and seven during roving tasks.
<b>Totals</b>	<b>64</b>	<b>1</b>	

In February 2021, The HALO Trust trained and deployed a non-technical survey team with the express goal of identifying mined areas in Savannakhet province. CMRS was postponed in villages that were suspected of being mine-affected until the extent and nature of the contamination was confirmed by the non-technical survey team. HALO's first dedicated mine clearance teams were deployed in November 2021.<sup>65</sup>

The HALO Trust discovered and destroyed a total of 14 anti-personnel landmines in Atsaphone, Phalanxai, and Thapangthong districts, Savannakhet province in 2021 (nine during mine-threat-specific non-technical survey, one during clearance, and four during EOD call-outs). Additionally, HALO discovered a further nine landmines during non-technical survey, but was unable to destroy them as they could not be approached safely.<sup>66</sup> HALO did not destroy any anti-vehicle mines in Lao PDR in 2021, although one anti-vehicle mine was reported in Phalanxai district, Savannakhet province, but could not be approached due to concerns the area was contaminated with anti-personnel mines.<sup>67</sup>

In 2021, HI was active only from end of August 2021 to December 2021, due to MoU delays and COVID-19 lock downs. HI destroyed nine emplaced landmines in Houaphanh province in 2021: one M16 landmine identified during Clearing While Surveying (although the fuze was no longer in place) and 8 landmines destroyed during EOD spot task call-outs from communities and following non-technical survey activities.<sup>68</sup> While the amount of area surveyed by HI in 2021 was similar to the previous year, HI reported that it found fewer suspected and confirmed minefields in its new target villages during the year. In total HI discovered four suspected mine fields identified in three villages (Ban Pacha, Ban Bouamngam, Ban Nakeng), all in Houameuang district, Houaphanh province.<sup>69</sup>

During non-technical survey and risk education visits, HI interviews older generations to understand the village history during the war, including anti-aircraft gun and other military positions; often M16 and M14 mines were laid around defensive positions. HI also collects information on injuries sustained in the forest due to mines and on areas not developed or which are not accessed due to previous accidents or reports of injured animals, or mines being detonated by fires during "slash and burn" operations. In some instances, villagers had collected or moved mines they had discovered.<sup>70</sup>

<sup>64</sup> Emails from Cameron Imber, HALO Laos, 31 March 2022; Julien Kempeneers, HI, 30 March 2022; Rebecca Letven, Programme Manager, MAG, 30 March 2022; Katherine Harrison, NPA, 11 May 2022; and email from Nouthin Phimmasy, UXO Lao, 4 June 2022. There was a discrepancy in data reported by the NRA and data reported directly by some operators. According to data reported by the NRA, HALO destroyed 13 anti-personnel mines; HI 9 anti-personnel mines; MAG 9 anti-personnel mines, NPA 1 anti-personnel mine; and UXO 26 anti-personnel mines. In addition, the NRA reported that the Lao People's Army (Unit 58) destroyed 3 anti-personnel mines (email from Douangsy Thammavong, NRA, 20 June 2022).

<sup>65</sup> Email from Cameron Imber, HALO Laos, 31 March 2022.

<sup>66</sup> Email from Cameron Imber, HALO Laos, 31 March 2022.

<sup>67</sup> Ibid.

<sup>68</sup> Email from Julien Kempeneers, HI, 30 March 2022.

<sup>69</sup> Ibid.

<sup>70</sup> Email from Julien Kempeneers, on behalf of Yvon Le Chevanton, HI, 25 March 2020.

In 2021, MAG destroyed a total of four anti-personnel mines. It discovered two emplaced anti-personnel (M16 bounding mines) in Pek and Phoukhout districts, Xiengkhouang province during cluster munition clearance. In addition, two further anti-personnel mines, both M16 bounding mines, were investigated by MAG's Technical Field Manager in Phoukhout district, Xiengkhouang. The mines were found to be fused and in an armed state and were safely destroyed by MAG's EOD team. They were, however, assessed not to be in their original place but have either been physically moved or more likely rolled down a slope/hill from a potential defence position higher up due to effects of heavy rain/weather.<sup>71</sup>

In 2021, NPA discovered and destroyed one anti-vehicle mine (type M7-A2) during a roving spot task in Pong-Tai village, Thateng district, Xekong province.<sup>72</sup> NPA does not conduct landmine survey or clearance, but said it sometimes encountered a limited number of landmines left around old defensive positions. As NPA does not have personnel trained or equipment for mine clearance, as soon as any mines are encountered during cluster munition survey or clearance tasks, the rule is to suspend the task and report this to the operations manager, who will then task senior EOD staff and/or international technical advisors to assess the area. NPA will only destroy mines that are clearly identified and can be safely accessed. It then also prepares a mined area report that is submitted to the NRA.<sup>73</sup>

UXO Lao, the oldest and largest clearance operator in Lao PDR, is a government organisation working under the Ministry of Labour and Social Welfare.<sup>74</sup> UXO Lao found and destroyed 28 anti-personnel mines in 2021, during non-technical survey, technical survey, and roving tasks in six provinces (Champassak, Houaphanh, Luang Prabang, Saravan, Savannakhet, and Xiengkhouang).<sup>75</sup>

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71 Email from Rebecca Letven, MAG, 30 March 2022.

72 Email from Katherine Harrison, NPA, 11 May 2022.

73 Email from Katherine Harrison, NPA, 8 August 2022.

74 Presentation by Saomany Manivong, UXO Lao, Vientiane, 2 May 2018.

75 Email from Noupin Phimmasy, UXO Lao, 4 June 2022.