The Lao People’s Democratic Republic (Lao PDR) made concrete progress in 2015 towards establishing a credible and reliable estimate for national contamination from cluster munition remnants (CMR). The CMR survey methodology pioneered by Norwegian People’s Aid (NPA) combined with follow-on clearance has set a new and more positive course for land release.
**RECOMMENDATIONS FOR ACTION**

- Lao PDR should expedite implementation of nationwide non-technical survey (NTS) and technical survey to reach an evidence-based estimate of the extent of CMR contamination.
- National authorities should establish clear standards for the conduct of NTS and technical survey.
- The authorities should streamline Memoranda of Understanding (MoUs) procedures to facilitate timely use of donor funds and efficient deployment of operator’s survey and clearance assets.
- Lao PDR should establish a budget line for sustained national funding of the sector.

**CONTAMINATION**

Lao PDR has the world’s highest level of contamination by unexploded submunitions as a result of the Indochina War of the 1960s and 1970s. The United States (US) conducted one of the heaviest aerial bombardments in history, dropping more than two million tonnes of bombs between 1964 and 1973, including more than 270 million submunitions (known locally as bombies). Clearance teams have found 29 types of submunition, including most commonly BLU 26, 24/66, and 63.²

There is no reliable estimate of contamination in Lao PDR. The government has reported that CMR contaminate approximately 8,470km² and overall contamination from unexploded ordnance (UXO) covers up to 87,000km² (around 35% of Laotian territory).³ Such estimates, however, are based on bomb targeting data that bears little relation to actual contamination, do not reflect results of clearance, and clearly overstate contamination by a high order of magnitude.

The National Regulatory Authority (NRA) reports that 14 of Lao PDR’s 18 provinces are contaminated by UXO, 9 of which are heavily affected. In 2016, the NRA set out plans for a nationwide survey that should produce an evidence-based assessment of the extent of contamination (see below, section on Survey in 2015).⁴ International operators believe CMR contamination is likely to amount to less than 2,000km².⁵

The NRA has identified submunitions as responsible for close to 30% of all incidents.⁶ Submunitions are also said to be the type of ERW most feared by the population.⁷ United Nations Development Programme (UNDP) has reported that as a result of submunition contamination, “economic opportunities in tourism, hydroelectric power, mining, forestry and many other areas of activity considered main engines of growth for the Lao PDR are restricted, complicated and made more expensive.”⁸ The extent of their impact has spurred calls for a survey and clearance strategy that gives priority to tackling CMR.⁹

Bombies (the local name for unexploded submunitions) accounted for three-quarters of all items cleared in 2015, a sharp increase that coincided with growing development of survey and evidence-based clearance. In 2014, bombies had made up about two-thirds of all items cleared, while UXO Lao, much the biggest operator, reported in 2011 that bombies had accounted for almost half the items cleared in the previous 15 years.

**Other ERW and Landmines**

Extensive contamination from other ERW includes both air-dropped and ground-fired UXO, though the extent of residual contamination from ERW is not known. Clearance operators have reported the presence of at least 186 types of munitions in Lao PDR.¹⁰ These reportedly range from 20lb fragmentation bombs to 2,000lb general-purpose bombs and sometimes larger items.¹¹ Other major causes of incidents are shells, grenades, mortars, and rockets.¹²

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3. Presentation by Phoukhieo Chanthasomboune, Director, National Regulatory Authority, CCM intersessional meetings (Clearance and Risk Reduction session), Geneva, 7 April 2014; and CCM Article 7 Report (for 2013), Form F.
5. Interviews with international operators, Vientiane, 3–7 May 2016.
PROGRAMME MANAGEMENT

The NRA, created by government decree in 2004 and active since mid-2006, has an interministerial board chaired by the deputy prime minister and composed of 22 representatives from government ministries.13 Until 2011, the NRA came under the supervision of the Ministry of Labour and Social Welfare. A decree issued in June 2011 appointed a minister in the Prime Minister’s Office responsible for rural development and poverty reduction as Vice-Chair of the Board, together with the Vice-Minister of Foreign Affairs.14

A February 2015 decree expanded the NRA board to 22, chaired by the Minister in the Prime Minister’s Office responsible for rural development, Bounheuang Douangphachanh, and with ministers of defence, foreign affairs, and labour and social welfare as vice-chairmen.15 In November 2012, Bounheuang Douangphachanh, a minister in the Prime Minister’s Office and chairman of the National Committee for Rural Development and Poverty Eradication, was appointed chairman of the NRA Board.16 A parliamentary election in March 2016 led to leadership changes, including the retirement of Bounheuang Douangphachanh. As at May 2016, it was not clear who would succeed him as NRA chairman.

Further change had occurred with a new decree issued in February 2015 increasing the size of the NRA board to 22 members, including, for the first time, a permanent deputy chairman expected to take care of the daily business of the board. The decree also specifies that the NRA “has a government budget included in the general budget” of the Board’s president.17

The NRA’s structure and role was set out in an “agreement” released in November 2012, defining it as the “secretariat for the Party Politburo and the Lao government for the overall management and consideration of policy matters, planning, projects and coordination of the implementation of the Lao PDR National Strategy for the UXO sector for the entire country.”18 Its role includes setting policy, coordinating, and regulating the sector, accrediting operators, setting standards, and conducting quality management. It also has the mandate to serve as the technical focal point for matters relating to international weapons treaties.19

The NRA has four sections: Administration and Finance, Planning and Cooperation, Quality and Standards, and Operations and Information. This includes a single quality management team. Until 2014, UNDP supported technical advisors to the NRA and UXO Lao, and a programme and finance advisor. In 2015, UNDP appointed one technical advisor to serve both the national regulator and the national operator, Sterling International, funded by the US Department of State, provided a technical advisor supporting quality management and operations at the NRA, a second adviser supporting national operator UXO Lao, and a third adviser providing support to both organisations as required.20

Strategic Planning

Lao PDR embarked in 2010 on a plan for 2011–20 known as “Safe Path Forward 2” (SPF), a revised version of which was approved by the government on 22 June 2012. The strategy identified six general goals, including reducing the number of casualties each year from 300 to less than 75,21 and the release of an average of 200km² a year, which was more than triple the 2013 rate of clearance and land release. It called for release of priority land through data analysis, general survey, technical survey, roving response, “and/or, finally, full clearance”.22

14 Prime Minister’s Decree No. 164, 9 June 2011; and NRA, “National Regulatory Authority for UXO/Mine Action Sector in Lao PDR Switches Ministries”, October 2011.
15 Prime Minister’s Decree 043/PM, 3 February 2015.
19 NRA website, “About the NRA”, 17 August 2012.
20 Interview with Allan Poston, Chief Technical Adviser, UXO Mine Action Sector; and Nils Christensen, UXO Portfolio Manager, UNDP, Vientiane, 6 May 2016.
The Lao government later added other targets. It adopted UXO clearance as a ninth Millennium Development Goal in 2010, targeting removal of all UXO from priority agricultural land by 2020. In 2013, the government identified 64 priority areas planned to become small rural townships, 167 focal sites to consolidate and “stabilise” remote rural communities, and more than 1,680 priority projects. No details were available on progress towards those targets as at June 2016.

After a review of SPF2 in June 2015, the NRA set a number of specific targets for the remaining five years up to 2020, including NTS of 3,860 villages, pursuing technical survey, keeping clearance as a priority of the government’s poverty eradication programme, bringing down the number of casualties to less than 40 a year, and providing medical care, vocational training, and economic support to 1,500 UXO victims.

More significantly, in March 2016 the NRA issued a paper committing to time-bound nationwide non-technical and technical survey with a view to producing Lao PDR’s first baseline estimate of cluster munitions contamination. After years of debate and uncertainty, UXO sector actors regarded the paper as a milestone that will provide guidance on the time and cost required to complete clearance of known hazards. The planned survey underscored the focus on tackling the threat of cluster munitions rather than general battle area clearance.

The paper calls for completing NTS of all villages in the 14 CMR-affected provinces in four years at an estimated cost of $6.84 million and technical survey of all evidence points in five years (by the end of 2021) at a projected cost of at least $20 million. Once technical survey is 30% complete, the government would be able to provide an estimate of total CMR contamination. Survey will be conducted mostly by international non-governmental organisations (NGOs) and UXO Lao, possibly with some involvement of the Lao PDR Army in NTS. The paper also states without explanation that the government expects international humanitarian operators, who account for about half the capacity of the humanitarian UXO sector, will cease conducting clearance after technical survey has been completed.

In the meantime, progress continues to be slowed by cumbersome, multi-layered, and long bureaucratic procedures for international organisations to conclude MoUs through the Ministry of Foreign Affairs which take many months of negotiation. These procedures have, on occasion, resulted in the loss of donor funding and stalled the import of equipment.

**Operators**

UXO Lao, working in nine provinces, laid off some 200 deminers as a result of funding shortfalls in 2014, but in 2015, with financial support from the US, brought employment back to around 1,200 personnel by the end of 2015, roughly equivalent to the combined staffing of international NGOs. In 2015, these included HALO Trust, Handicap International (HI), Mines Advisory Group (MAG), and NPA, which had a total workforce of 1,199. The Lao armed forces started work in Xaisomboun province and were expected to start operating in Bolikhamxay, Vientiane and Khammouan provinces in 2016.

International commercial operators include Auslao UXO Clearance, BACTEC (Battle Area Clearance, Training, Equipment and Consultancy), Milsearch, and Munitions Management Group (MMG). National commercial operators include ASA Power Engineering, Lao BSL UXO Clearance, Lao Uneod Cooper, OUMMA UXO Clearance, PSD, Sengphet UXO Clearance, SBH, and XTD UXO Clearance. In 2015, the NRA accredited another commercial company, GREAT Company.

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23 “Laos: new MDG to tackle UXOs”, IRIN, 12 November 2010.
24 Interviews with Phoukhieo Chanthasomboune, NRA, Vientiane, 13 June 2013; and Phil Bean, NRA, Vientiane, 12 June 2013.
25 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 4 May 2016.
27 Interview with Allan Poston, UNDP, Vientiane, 6 May 2016.
29 Email from the NRA, 4 July 2016.
30 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 4 May 2016.
LAND RELEASE

Since the start of 2015, priority in the UXO sector has shifted to survey to provide a basis for evidence-based clearance and to make a credible determination of the extent of Lao PDR’s contamination. As a result, the amount of land cleared fell in 2015, but the amount of land identified as confirmed hazardous area (CHA) rose sharply and items destroyed in the course of survey and clearance similarly rose significantly.

Survey in 2015

After trials of a CMR-specific survey methodology in 2014, the NRA approved national survey standards in January 2015. Although some operators had already started to apply a form of survey suited to submunitions, the NRA’s standard shifted the UXO sector as a whole to CMR-focused survey together with evidence-based clearance for the first time. The NRA reported operators recorded 101.5km² of CHA established in 2015, a near 50% increase on the previous year.31

UXO Lao operated with one survey team in each of the provinces in which it worked, and in 2015 the organisation trained personnel to apply the new methodology. Sizeable discrepancies between UXO Lao’s reported NTS results and NRA data (see Table 1) hamper assessment of its progress in 2015 but it also reported identifying 36km² of CHA in the nine provinces where it works, similar to its 2014 results.32

Among the humanitarian operators, NPA and HALO Trust concentrated their programmes on survey, although both also increased the amount of land they cleared in 2015. HALO Trust, working in the southern province of Savannakhet, received additional funding allowing it to add two teams in 2015, conducting technical survey of a total of almost 28.7km² of land, confirming 404 hazardous areas covering 9km². HALO Trust also cleared 1km² but destroyed more bombies in the course of technical survey (2,679) than in clearance operations (1,157).33

A total of 27,163 submunitions were destroyed during technical survey according to the NRA.34

NPA, which worked with 11 NTS teams and 18 teams on technical survey and clearance, reported completing NTS in all villages in the three southern provinces where it works, Saravane, Sekong and Attapeu, and said it had conducted technical survey in 65% of the villages in those provinces. In 2015, it reported identifying 641 CHAs covering a total of almost 37.2km². That was marginally less than the area confirmed the previous year, but NPA also cleared 19 CHAs covering a total of 1km², up from 0.26km² the previous year. NPA also started working with MAG in one district of Khamouane province in October 2015 and with UXO Lao in Xieng Khouang province.35

MAG conducted technical survey over 20km² enhancing CMRS with evidence points collected over many years of EOD and achieving a high ratio of area confirmed to area surveyed.37

Table 1: Technical survey of CMR-suspected area in 201536

<table>
<thead>
<tr>
<th>Operator</th>
<th>Area covered (km²)</th>
<th>Areas confirmed</th>
<th>Area confirmed (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HALO Trust</td>
<td>28.69</td>
<td>404</td>
<td>9.00</td>
</tr>
<tr>
<td>HI</td>
<td>12.77</td>
<td>570</td>
<td>3.82</td>
</tr>
<tr>
<td>MAG</td>
<td>20.44</td>
<td>109</td>
<td>15.79</td>
</tr>
<tr>
<td>NPA</td>
<td>96.41</td>
<td>631</td>
<td>37.16</td>
</tr>
<tr>
<td>UXO Lao</td>
<td>N/A</td>
<td>1,091</td>
<td>36.34</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>158.31</strong></td>
<td><strong>2,805</strong></td>
<td><strong>102.11</strong></td>
</tr>
</tbody>
</table>

N/A = Not available

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31 Ibid.; and “2015 Sector Achievements” (data as of 29 April 2016), provided by NRA on 4 May 2016.
32 Interview with Thipsone Soukhathammavong, National Programme Director and Saomany Manivong, Chief of Programme Office and Public Information, UXO Lao, Vientiane, 5 May 2016; and “UXO Lao Progress Summary Report, 2015”, received from UXO Lao on 6 May 2016.
33 Email from Nick Torbet, Programme Manager, HALO Trust, 29 March 2016.
34 “Sector Achievements”, interim figures (as at 29 April 2016), received by email from NRA, 4 May 2016.
35 Email from Jonas Zachrisson, Country Director, NPA, 21 April 2016.
36 Data provided by Nick Torbet, HALO Trust, 29 March 2016; Kim Warren, Head of Mission, HI, 5 May 2016; Simon Rea, Country Director, MAG, 3 May 2016.
Key issues facing the sector in 2016 included providing clearer ground rules for investigation of historical data during NTS, a clearer definition of fade-out in the conduct of technical survey, and setting clear criteria for achieving completion. HALO Trust, as at May 2016, said it had finished technical survey in all but 10 of the villages in the operating area assigned to it, but was awaiting additional allocation of villages.38 NPA expected to conclude technical survey of the three southern provinces in which it has been working by the end of 2016,39 but the NRA said it did not accept NPA had completed NTS in its southern area of operations and was not satisfied that it had sufficiently investigated all village areas and historical evidence.40

In 2016, NPA re-started NTS of a sample of 12 villages in the three southern provinces where it had already completed technical survey to test the quality of the work conducted.41 Meantime, the NRA was preparing plans for a “joint observation team” to review NTS and technical survey results, sampling sites in different provinces surveyed at different times in the last few years as the cluster munition survey methodology was developed. As at May, the NRA had not finalised the assessment’s terms of reference or the composition of the team that would conduct it and had not set a timeline for implementing it.42

The NRA’s commitment to a nationwide baseline survey also highlighted the need for additional capacity to enhance performance in a number of areas, including quality management, provincial coordination by the NRA between operators and local authorities, support for analysis, and developing sector policy and information management. Significant discrepancies persisted between the data recorded by operators and the NRA’s Information Management System for Mine Action (IMSMA) database, partly attributable to a backlog of entries, particularly relating to UXO Lao operations.43

Clearance in 2015

With the growing emphasis on survey, the amount of land confirmed as hazardous in 2015 far outstripped the area released by clearance. The total amount of land cleared in 2015 amounted to 41.3 km², 40% less than in the previous year, but the number of bombies destroyed in clearance operations nearly doubled, underscoring the greater effectiveness of operations as a result of the sector’s shift to evidence-based clearance. A further 49,938 bombies were destroyed in the course of technical survey and roving operations.44

The fall in area clearance resulted mainly from a 40% drop in land cleared by commercial companies, which worked largely on tasks related to hydropower and mineral sector or power lines and have little impact on Lao PDR’s progress towards fulfilling its treaty obligations. Humanitarian operators cleared 29.6 km² in 2015 compared with 35.6 km² the previous year, a drop of 17%, but they also accounted for 99% of the bombies destroyed in the course of clearance.

The lower overall rate of area clearance resulted from less clearance by UXO Lao, much the biggest of the five humanitarian organisations. Its productivity was affected by the laying-off of 19 teams in the last quarter of 2014 as a result of funding constraints, even though US funding enabled it to replace those teams in the course of 2015. Area clearance rates also dropped as teams converted from request-based operations clearing designated tasks regardless of the likelihood of finding contamination, to evidence-based survey focused on CHAs. Although UXO Lao continued to clear some tasks on request in 2015, it said the average number of items its teams destroyed rose from under six items per hectare two years ago to more than 20 per hectare in 2015. In 2016, it said it planned to work exclusively on CHAs. It was conducting

38 Interview with Nick Torbet, HALO Trust, Vientiane, 7 May 2015.
39 Skype interview with Asa Gilbert, Operations Manager, NPA, 8 May 2016.
40 Interview with Phoukhieou Chanhasomboun, NRA, Vientiane, 4 May 2016, and email, 4 July 2016.
41 Skype interview with Asa Gilbert, NPA, 8 May 2016.
42 Interviews with Phoukhieou Chanhasomboun, NRA, Vientiane, 4 May 2016; and Allan Poston, UNDP, Vientiane, 6 May 2016.
43 NRA, “From Survey to Safety, Quantifying and Clearing UXO Contamination in Lao PDR”, March 2016, p. 4; and interviews with Allan Poston, UNDP and operators, Vientiane, 3–7 May 2016.
44 “2015 Sector Achievements” [data as of 29 April 2016], provided by NRA, 4 May 2016.
technological survey jointly with NPA in Xieng Khouang province.\(^45\)

With NPA and HALO Trust focused primarily on technical survey, the main other operator engaging in large-scale clearance was MAG, operating in three districts of Xieng Khouang and one district of Khamouane province. It more than doubled the amount of land it cleared in 2015 compared with the previous year after deploying additional clearance teams. It also attributed the increase in part to working with locally hired teams and two machines to cut vegetation which was previously undertaken by mine action teams.\(^46\)

HI, operating with 82 operations personnel in Savannakhet province, focused on area clearance for most of 2015 and also substantially increased items destroyed in roving tasks. From October, HI switched the emphasis to technical survey but without additional donor support it appeared likely to have to lay off a number of teams.\(^47\)

Preliminary data for 2015 showed a more than 27% drop in the number of bombsies destroyed in roving operations in 2015 from the previous year but did not appear to capture all the operators’ results. MAG reported destroying 3,528 bombies in 2015, more than in 2014, in addition to 799 other UXO items.\(^48\) The main drop occurred in operations by UXO Lao, which previously worked with dedicated roving teams, but in 2015 kept a roving team only in Xieng Khouang province and switched to using clearance teams to carry out spot explosive ordnance disposal (EOD) in other provinces.\(^49\)

### Table 2: Battle area clearance in 2015\(^48\)

<table>
<thead>
<tr>
<th>Operator</th>
<th>Area covered (km(^2))</th>
<th>Submunitions destroyed</th>
<th>Large bombs destroyed</th>
<th>UXO destroyed</th>
<th>Mines destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanitarian</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALO Trust</td>
<td>1.05</td>
<td>1,157</td>
<td>2</td>
<td>404</td>
<td>0</td>
</tr>
<tr>
<td>HI</td>
<td>0.54</td>
<td>491</td>
<td>15</td>
<td>804</td>
<td>0</td>
</tr>
<tr>
<td>MAG</td>
<td>7.26</td>
<td>6,424</td>
<td>2</td>
<td>259</td>
<td>0</td>
</tr>
<tr>
<td>NPA</td>
<td>1.03</td>
<td>2,034</td>
<td>2</td>
<td>63</td>
<td>0</td>
</tr>
<tr>
<td>UXO Lao</td>
<td>19.73</td>
<td>39,391</td>
<td>34</td>
<td>11,632</td>
<td>108</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td><strong>29.61</strong></td>
<td><strong>49,497</strong></td>
<td><strong>55</strong></td>
<td><strong>13,162</strong></td>
<td><strong>108</strong></td>
</tr>
<tr>
<td><strong>Commercial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>0.02</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>AUSLAO</td>
<td>3.68</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>BACTEC</td>
<td>0.53</td>
<td>11</td>
<td>0</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Lao BSL</td>
<td>1.16</td>
<td>59</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LAUNC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Milsearch</td>
<td>0.22</td>
<td>24</td>
<td>2</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>MMG</td>
<td>3.70</td>
<td>125</td>
<td>49</td>
<td>402</td>
<td>0</td>
</tr>
<tr>
<td>OUMMA</td>
<td>0.19</td>
<td>319</td>
<td>0</td>
<td>213</td>
<td>0</td>
</tr>
<tr>
<td>PSD</td>
<td>2.08</td>
<td>47</td>
<td>1</td>
<td>1,518</td>
<td>0</td>
</tr>
<tr>
<td>SBH</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>XTD</td>
<td>0.11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td><strong>11.69</strong></td>
<td><strong>587</strong></td>
<td><strong>52</strong></td>
<td><strong>2,182</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>41.30</strong></td>
<td><strong>50,084</strong></td>
<td><strong>107</strong></td>
<td><strong>15,344</strong></td>
<td><strong>108</strong></td>
</tr>
</tbody>
</table>

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\(^{45}\) Interview with Thipasone Soukhathammavong, National Programme Director, and Saomany Manivong, Chief of Programme Office and Public Information, UXO Lao, Vientiane, 5 May 2016.

\(^{46}\) Interview with Simon Rea, MAG, Vientiane 4 May 2016.

\(^{47}\) Interview with Kim Warren, HI, Vientiane, 5 May 2016.

\(^{48}\) “Sector Achievements”, interim figures [29 April 2016], received from NRA, 4 May 2016.

\(^{49}\) Email from Simon Rea, MAG, 3 May 2016.

\(^{50}\) Interview with Thipasone Soukhathammavong and Saomany Manivong, UXO Lao, Vientiane, 5 May 2016.
ARTICLE 4 COMPLIANCE

Under Article 4 of the Convention on Cluster Munitions, Lao PDR is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 August 2020.

Lao PDR will not complete clearance by its Article 4 deadline given the extent of its contamination but plans to provide what will be the first credible estimate of CMR contamination when its nationwide technical survey is one-third complete, a position that should be reached well ahead of the 2020 deadline. This will provide a solid basis for assessing the time and resources required to complete cluster munition clearance.

Although the focus on survey has slowed clearance the rapid accumulation of CHA data will enable faster, more efficient clearance ahead, providing resources are available to finance it. The NRA reported that Lao PDR received $35.47 million in donor funding for the UXO sector in 2015, close to the $36 million received in 2014, and was seeking close to $38 million for the sector in 2016.

The government reported providing $4.82 million for the UXO sector in 2015, nearly identical to the figure reported the previous year, and including rent for UXO Lao and the NRA, tax exemption on operator equipment imports, and costs associated with UXO sector activities of the Lao PDR armed forces. The government would contribute $380,000 to the sector in 2016.

Table 3: Roving clearance operations in 2015

<table>
<thead>
<tr>
<th>Operator</th>
<th>Submunitions destroyed</th>
<th>Bombs destroyed</th>
<th>Other UXO destroyed</th>
<th>Mines destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>HALO Trust</td>
<td>2,398</td>
<td>23</td>
<td>684</td>
<td>0</td>
</tr>
<tr>
<td>HI</td>
<td>2,432</td>
<td>21</td>
<td>1,256</td>
<td>2</td>
</tr>
<tr>
<td>MAG</td>
<td>830</td>
<td>6</td>
<td>749</td>
<td>0</td>
</tr>
<tr>
<td>NPA</td>
<td>1,666</td>
<td>39</td>
<td>817</td>
<td>0</td>
</tr>
<tr>
<td>UXO Lao</td>
<td>15,449</td>
<td>126</td>
<td>8,855</td>
<td>34</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>22,775</strong></td>
<td><strong>215</strong></td>
<td><strong>12,361</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

Table 4: Five-year summary of clearance

<table>
<thead>
<tr>
<th>Year</th>
<th>Area cleared (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>41.30</td>
</tr>
<tr>
<td>2014</td>
<td>67.78</td>
</tr>
<tr>
<td>2013</td>
<td>64.86</td>
</tr>
<tr>
<td>2012</td>
<td>54.42</td>
</tr>
<tr>
<td>2011</td>
<td>38.74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>267.10</strong></td>
</tr>
</tbody>
</table>

51 “Sector Achievements”, interim figures (29 April 2016), received from NRA, 4 May 2016.
52 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 4 May 2016; and email from the NRA, 4 July 2016.
54 Interview with Phoukhieo Chanthasomboune, NRA, Vientiane, 4 May 2016.