



UXO Lao Survey and Clearance Methodology



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13 November 2018



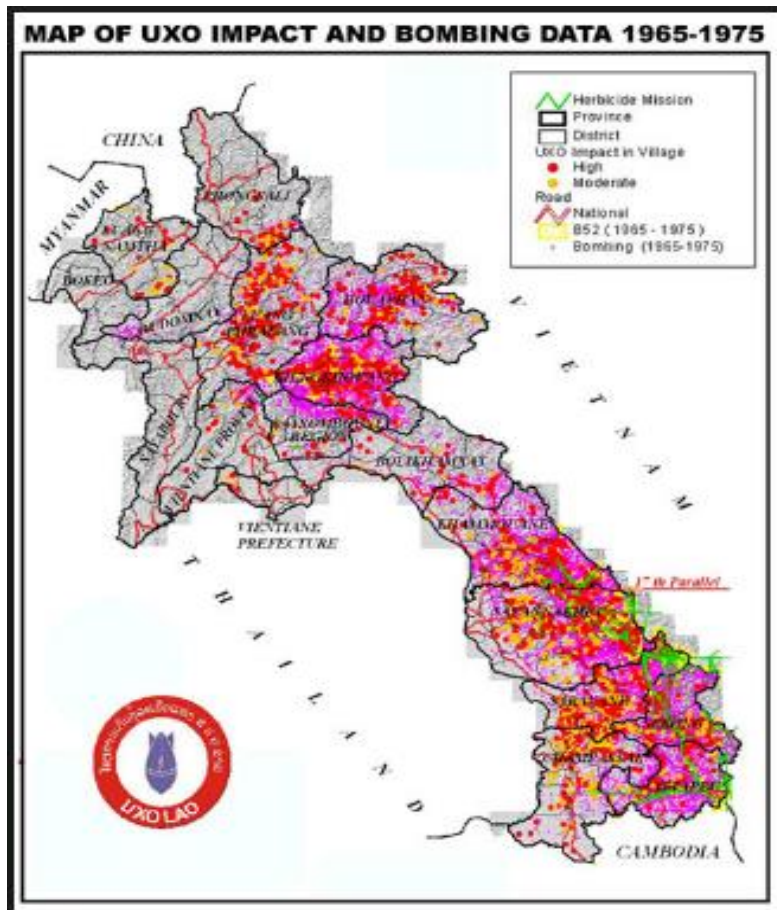
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Presentation Outline

1. UXO Contamination in Lao PDR
2. Lao PDR's Situation and Approach
3. Lao PDR Survey Overview
4. Technical Survey (TS) – Start Point, Search Process, Colour Coding Boxes, Continuation of TS, Confirmed Hazardous Area (CHA) Creation
5. Clearance of CHAs
6. Use of IMSMA data on Google Drive for Survey



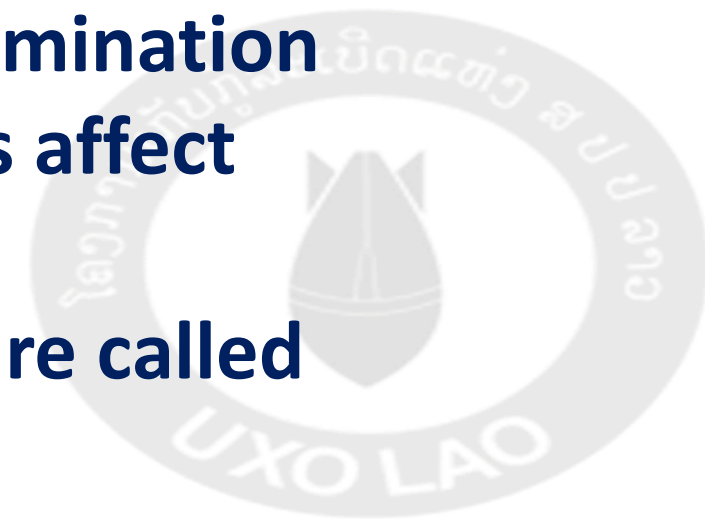
UXO Contamination in Lao PDR



- ❖ In Lao PDR UXO affects:
 - ✓ 17 of 18 Provinces
 - ✓ 110 of 143 Districts
 - ✓ 3,860 of 8,643 Villages
- ❖ UXO contamination is different to mine contamination in that:
 - ✓ It affects widespread areas of the country, not specific areas
 - ✓ The real extent of UXO contamination is unknown
 - ✓ It requires a different methodology to mine clearance

Lao PDR's Situation and Approach

- ❖ Lao PDR does not have Suspected Hazardous Areas (SHAs)
- ❖ Lao PDR does not 'release' land from suspicion of contamination
- ❖ Survey is used to confirm areas of contamination
- ❖ Focus on Cluster Munitions (CM) as CMs affect specific areas
- ❖ Confirmed areas of CM contamination are called Confirmed Hazardous Area (CHAs)

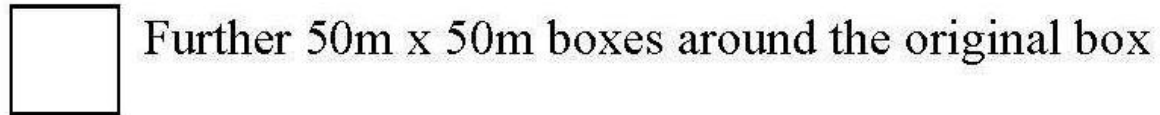
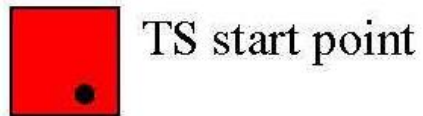
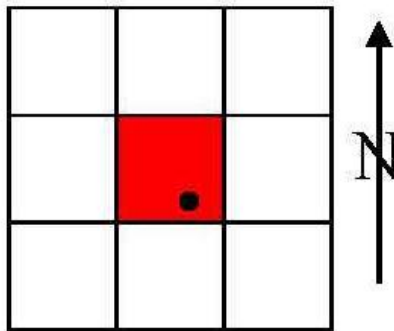


Lao PDR Survey Overview

- ❖ Non Technical Survey (NTS) to find evidence of CM contamination. NTS is a one-off activity
- ❖ Technical Survey (TS) to follow CM evidence to find extent of CM contamination
- ❖ Extent of CM contamination has a 50m buffer from each CM found during TS added (fade out)
- ❖ CM contaminated area + fade out recorded as a CHA
- ❖ Previous CM clearance also used as evidence

TS - Start Point

- ❖ 50m x 50m boxes used to manage the TS. CM evidence is TS start point. One Deminer per box



- ❖ 50m x 50m boxes around the start point box are searched. If TS continues further, boxes outside the first eight boxes may also be searched

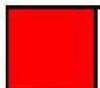

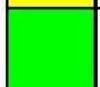


TS - Search Process

- ❖ Each box is detector searched with emphasis on finding CM
- ❖ If a CM is found searching may stop
- ❖ If no CM found no less than 50% of the area in the box must be searched. No time limit
- ❖ If CM contamination is high it is OK to skip or jump boxes



TS - Colour Coding Boxes

❖ Colours used to record what was found in each box

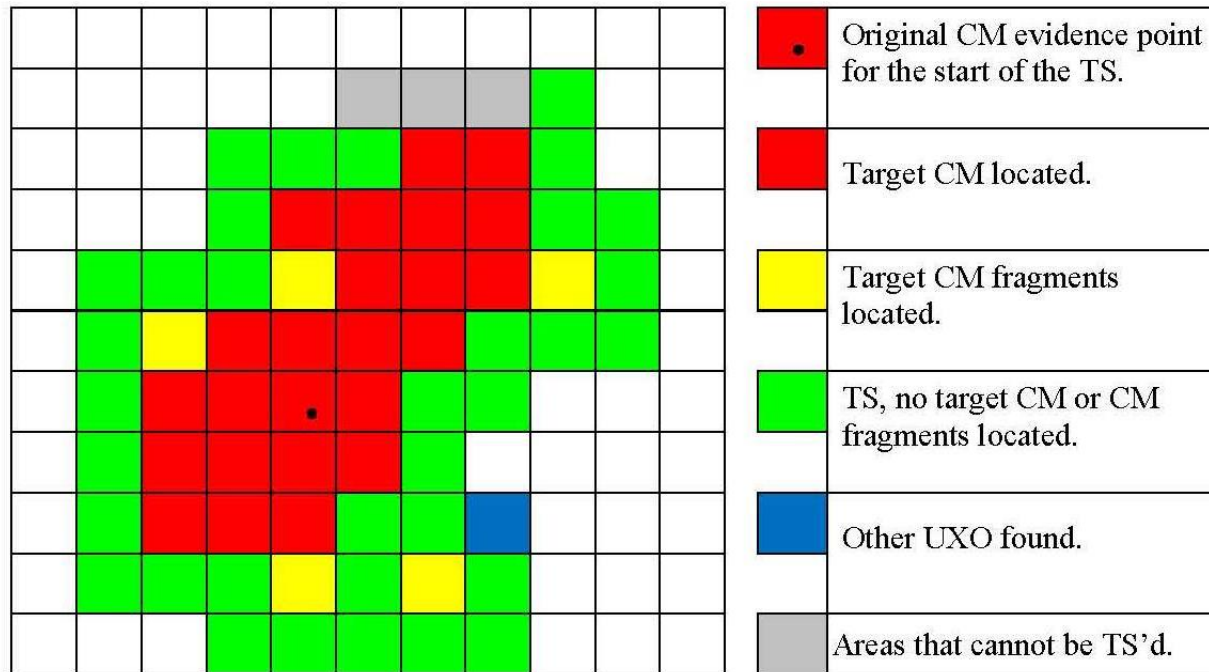
	If a target CM, CM fuze or a fragment of an <u>unexploded</u> target CM is found the box is coloured red.
	If a target CM fragment is found the box is to be coloured yellow.
	If no target CM or CM fragments are found the box is coloured green.
	If an 'other UXO' is found the box is coloured blue.
	Grey boxes are used to indicate boxes that cannot be 50% surveyed due to inaccessibility, or are not surveyed because of previous clearance or concession areas.

❖ If an other UXO is found in the same box as a CM the colours red/yellow take precedence



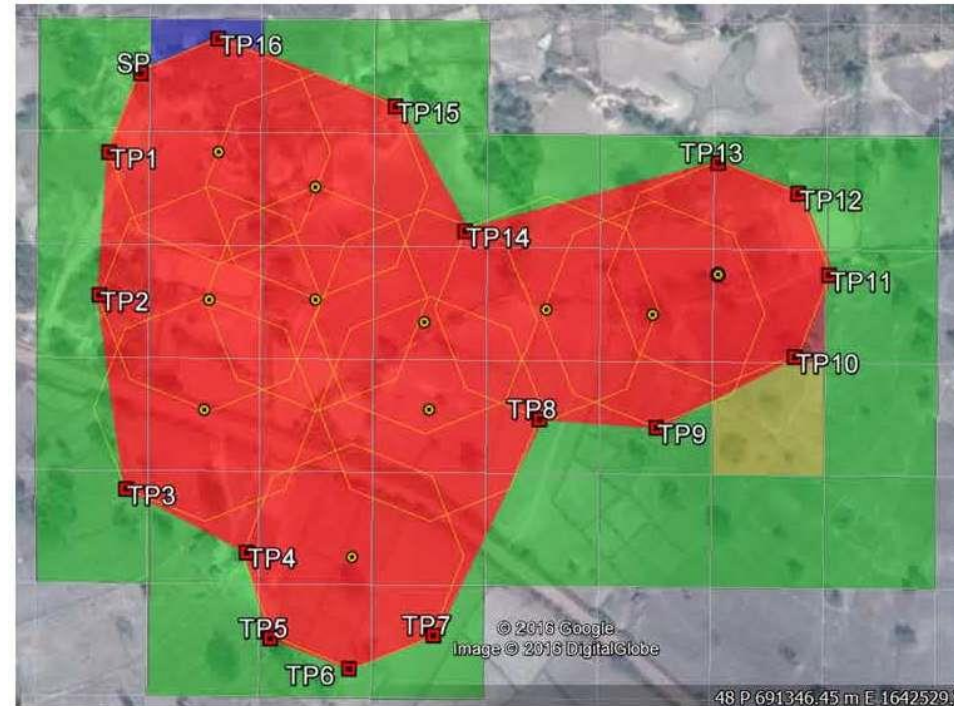
Continuation of TS

- ❖ TS continues until there are only green or grey boxes around the edges of the TS:



CHA Creation

- ❖ CHA are established to take into account the fade out required from the CMs located during TS



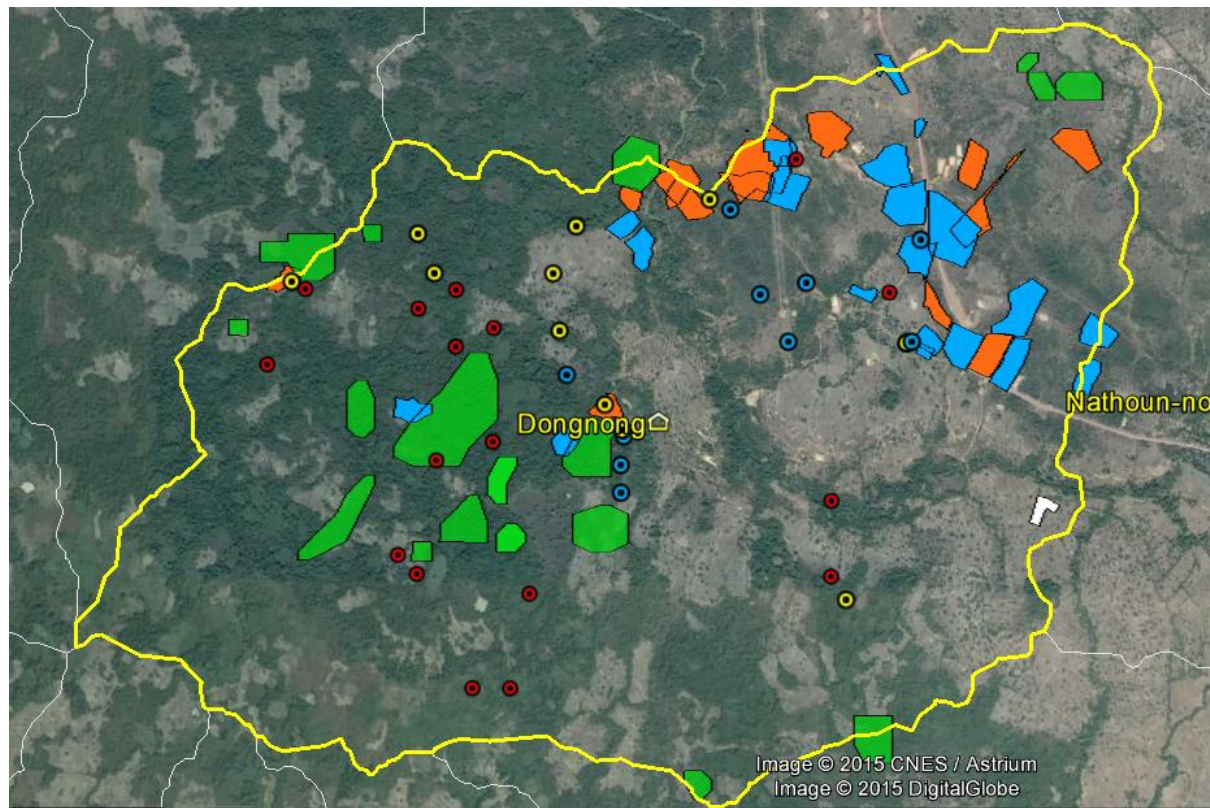
Clearance of CHAs

- ❖ Focus is on clearance of CM contaminated CHAs
- ❖ CHAs prioritised based on:
 - Government development areas
 - Poor families or poor village
 - Level of risk to people
 - Numbers of beneficiaries
 - Accessibility
 - Seasonal factors, weather, planning, harvesting etc.
 - Vegetation clearance by land owner also a consideration



IMSMA Data on Google Earth (GE)

❖ UXO Lao uses IMSMA data on GE for survey



Map Legend

-  CM Bombing Data Point
-  Roving Task With CM
-  Roving Task No CM
-  Area Clearance With CM
-  Area Clearance No CM
-  Area Clearance No UXO
-  Confirmed Hazardous Area



LAO PDR THANK YOU



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