



# NPA APPROACH TO CMR CLEARANCE AND CM STOCKPILE DESTRUCTION



Norwegian People's Aid



# Norwegian People's Aid Humanitarian Disarmament

- ❑ 20 years as a leading «Mine Action» actor
- ❑ Projects in 23 countries globally
- ❑ Had presence in more than 10 countries across Africa
- ❑ More than 1600 employees (3 % expats)
- ❑ Mine Clearance
- ❑ Cluster Munition Clearance
- ❑ Physical Security & Stockpile Management (PSSM)



# WORKING METHODS

- ❑ Operational Programs
- ❑ Methodology Development
- ❑ National Ownership
- ❑ Advocacy



# Methodology Development

- Norwegian People's Aid (NPA) has been one of the principal international NGOs in landmine related activities over the past two decades.
- NPA also provides systematic reflection on how to address the problem of CMR.
- The principles of land release have been tailored towards the distinctiveness of CMR contamination to form the most effective and targeted response. Many areas that would have been cleared in the past can now be confidently cancelled or released through non-technical and technical survey.
- NPA has in its work effort targeted developing the most efficient operational methods for CMR survey and land release.



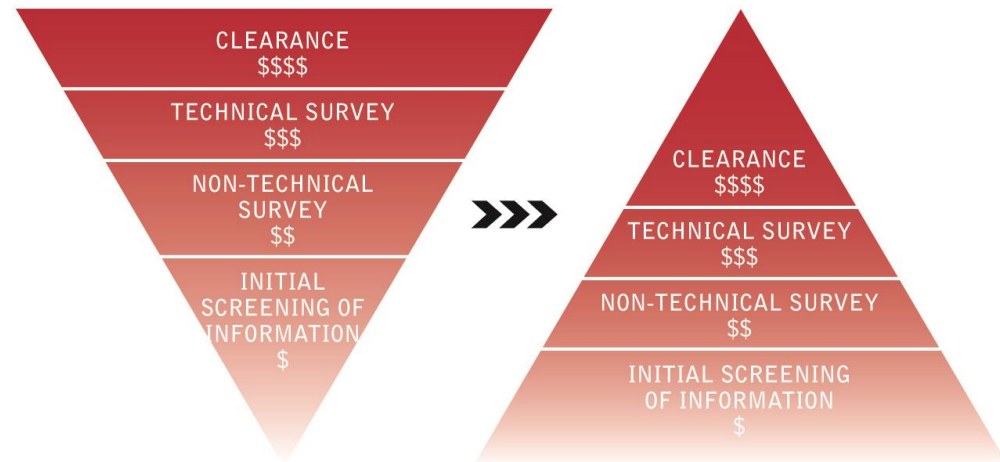
# Methodology Development

- In some instances bombing data has proven fairly accurate in some countries while less accurate or even non-existent in others. Other country variables include type and age of cluster munitions, deployment methods, topography, vegetation and ground conditions.
- It is thus not possible to develop a single response that would work in all countries. Generic survey and land release principles have thus been adapted to suit the local context in each country.



# ARTICLE 4

- If all state Parties to the CCM are to be successful in clearing and destroying all CMR in time, then the implementation needs to follow strict **land release** approach with strong focus on **information management**.
- *Reduce more through TS, Cancel more through NTS and Only Clear what is necessary*
- **Better Resource Utilisation**
- **Minimal Cost**
- **Time Saving.**



# ARTICLE 4

- A number of key challenges to clearance and destruction of CMR need to be addressed; however, as a result of lessons learned from a decade of implementing the APMBC, these challenges are both familiar and well-known.
- Preconditions for success include good and appropriate baseline knowledge about the threat through appropriate survey methods, information management (IM), and national ownership.



# ARTICLE 4

- There are very specific differences between CMR and landmines. Landmines are victim activated by design while CMR is an unwelcome consequence of CM that has failed to detonate on impact as designed. CMR are thus typically (but not always) less sensitive to impact than landmines and thus there is an opportunity to conduct CMR survey that produces a more accurate description of the problem
- NPA recommends that State Parties establish Confirmed Hazardous Areas (CHAs) defined from evidence-based non-technical and technical survey as the true measure of the scope of the CMR problem and avoid relying on inflated Suspected Hazardous Areas (SHAs) that result in a considerable waste of follow-on clearance response.





# ARTICLE 4

- There is typically confusion about the difference between Suspected Hazardous Area (SHA) and Confirmed Hazardous Area (CHA). SHA is often incorrectly presented as a measure of the scope of the problem; this inflates the CMR problem and increases the costs of the clearance response.



# NPA CMRS APPROACH

- To effectively address CMR contamination, NPA has developed an evidence-based survey system that takes into account the unique characteristics of cluster munitions contamination in SE Asia.
- The methodology, known as Cluster Munition Remnant Survey (CMRS), has proven highly efficient and effective in defining accurate Confirmed hazardous areas (CHA). CMRS has been tailored towards the unique situation in SE Asia but basic principles can be conveyed to other contaminated countries. e.g. Mozambique 2015 and hopefully Angola 2016/2017



# Evidence Based Survey

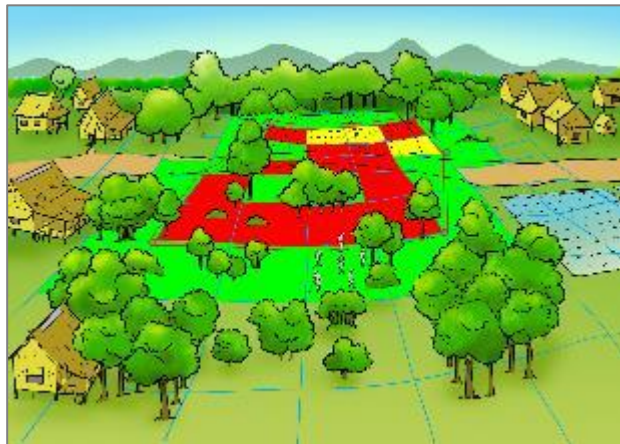
- Evidence based survey provides:
  - Defines contaminated areas
  - Quantifies CM contaminated land
  - What remains to be cleared
  - Allows suitable resource allocation (personnel, equipment, time, funding)



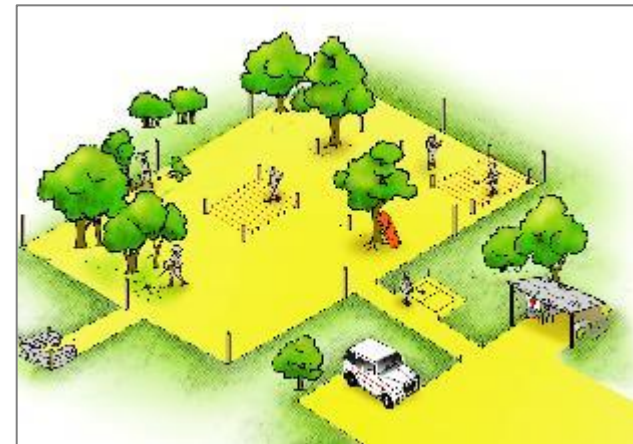
# NPA Survey and Clearance Process



1. Non-technical Survey



2. Technical Survey  
(CMRS)



3. Clearance



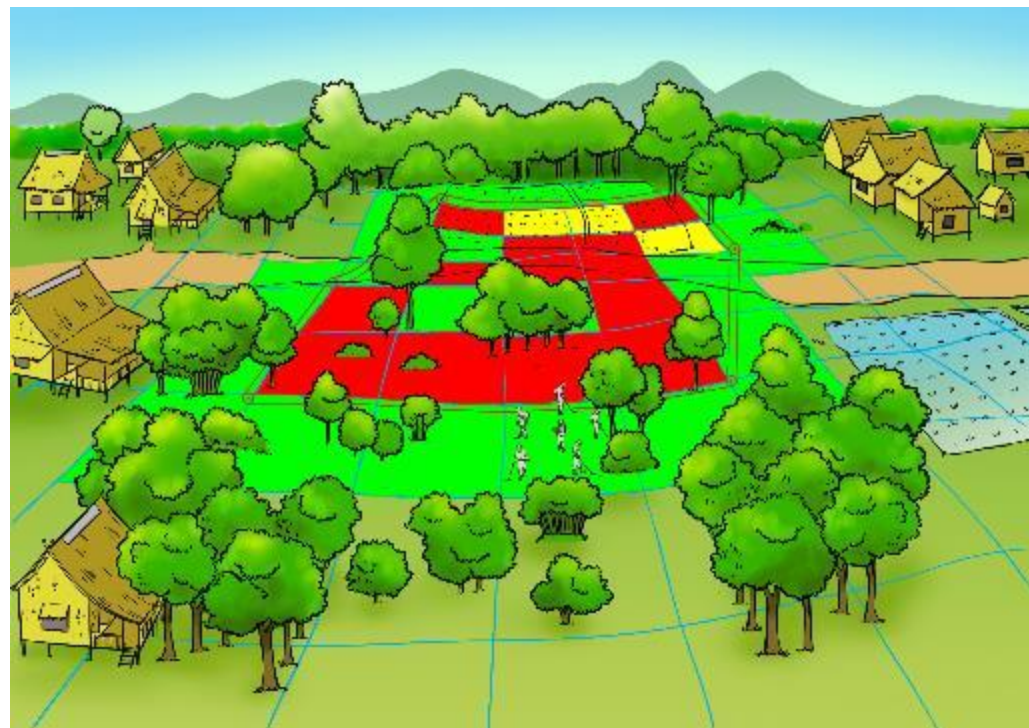
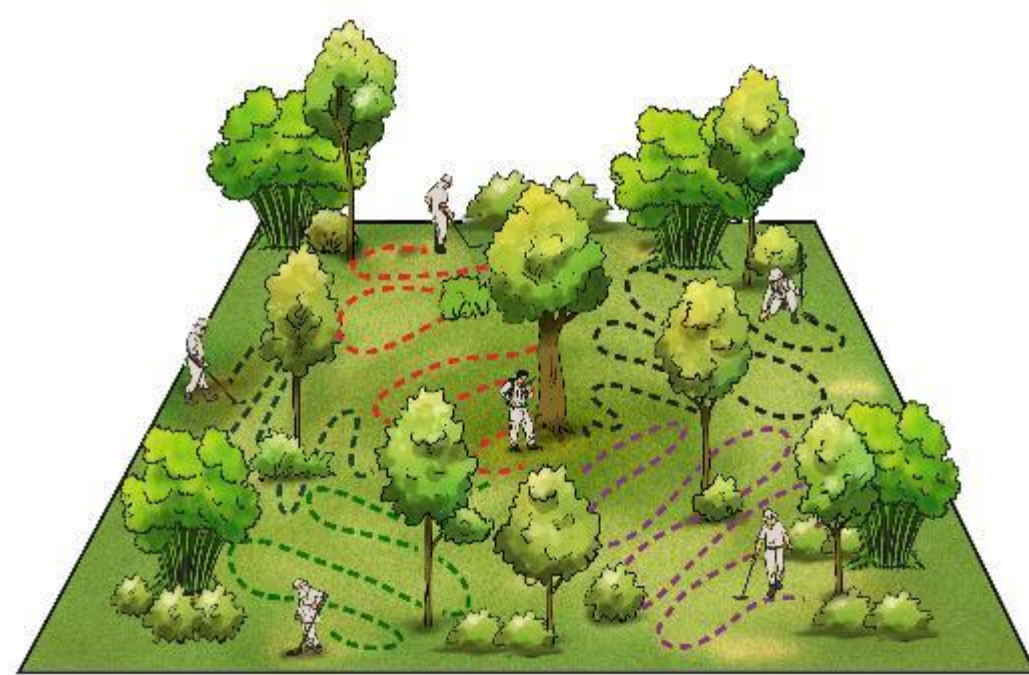
# Non-technical Survey

NTS involves review of historical data, village meetings, discussions with key informants and field visits. The aim is to identify "Starting Points" for CMRS.



# Technical Survey (CMRS)

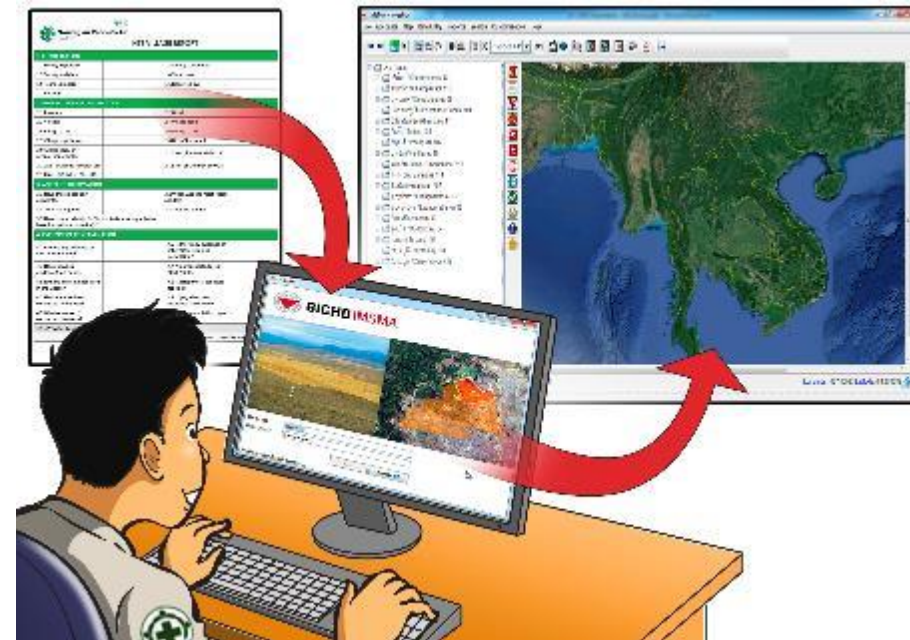
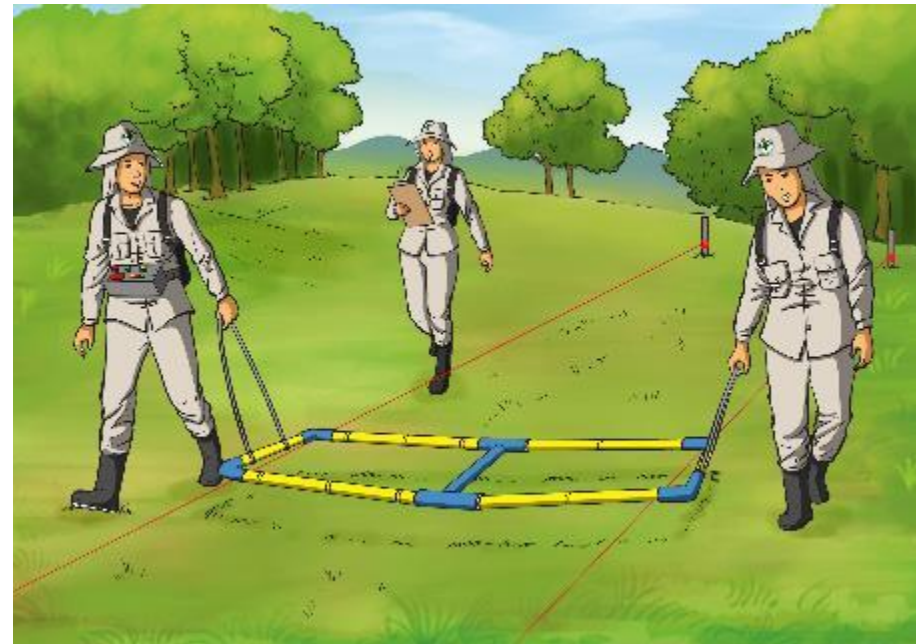
Based on the information gathered during NTS, detectors are used to establish the cluster munition footprint on the ground and create Confirmed Hazardous Areas (CHA)



# Clearance

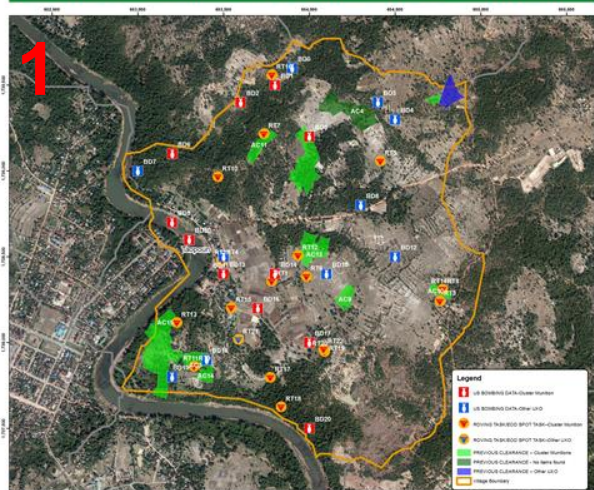
NPA only conduct clearance of high priority Confirmed Hazardous Areas (CHA) identified through CMRS.

All information is entered into the NPA database (Share Point) and uploaded into the national database (IMSMA)



# DIFFERENT STAGES OF CLUSTER MUNITION REMNANTS SURVEY (CMRS) PROCESS

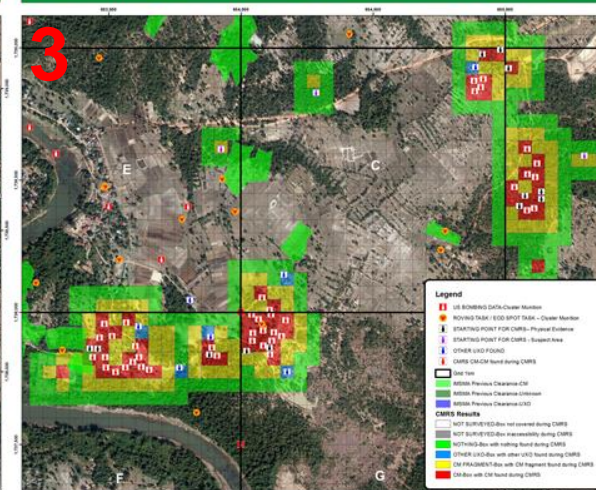
1. DESKTOP ASSESSMENT INCLUDE REVIEW OF HISTORICAL DATA BEFORE NTS



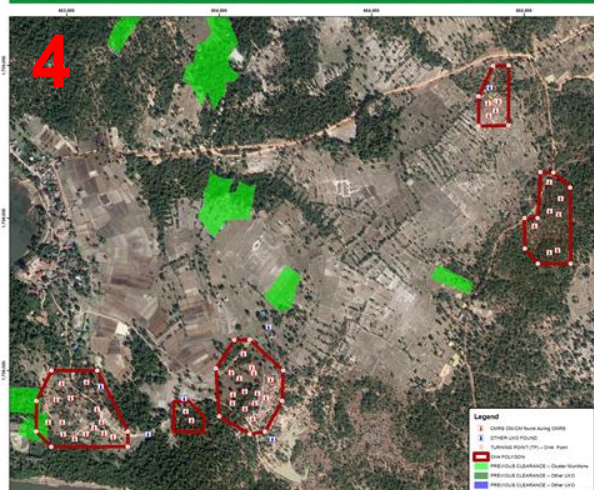
2. NTS PROCESS IDENTIFY STARTING POINTS FOR CMRS



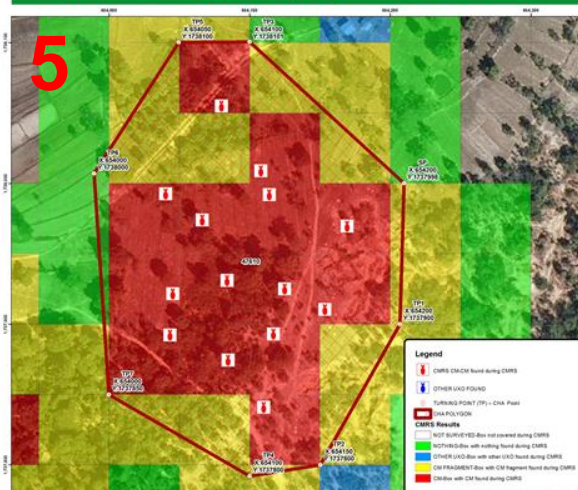
3. CMRS SYSTEMATIC SEARCH ON 50X50M BOXES TO CONFIRM OF CONTAMINATION



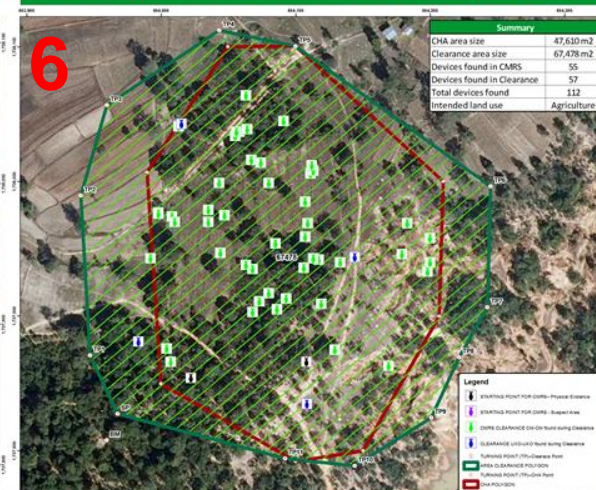
4. ESTABLISHMENT OF CHA AFTER CMRS AND REPORT TO NRA IMSMA DATABASE



5. CONFIRMED HAZARDOUS AREA (CHA) IS TASKED FOR CLEARANCE



6. CLEARANCE COMPLETED WITH 50M FADE OUT AND THE LAND HAS BEEN RELEASED



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NPA Laos Program is using high resolution satellite imageries for its Cluster Munition Remnants Survey (CMRS) and for clearance operation. These imageries are intellectual property of NGD (National Geographic Department) and is licensed to NPA.

Disclaimer:  
 NPA makes no warranty, express or implied, related to the accuracy of the content or of the boundaries of this map.

NPA is working in partnership with the National Regulatory Authority (NRA) for UXO/Mine Action and other stakeholders to eliminate the humanitarian and socio-economic threat posed by ERW in Lao PDR.

Confirmed Hazardous Areas (CHA) identified during CMRS (Cluster Munitions Remnant Survey) conducted by the Norwegian People's Aid (NPA). For further information and clarification about survey methodology, please contact NPA country office.

Date: 15-Sep-15

NPA's Long-term objective:  
 Cluster munition contamination is not an obstacle to socio-economic development in Lao PDR.

Immediate objective:  
 Cluster munition contamination in (NPA operational areas) of Lao PDR is surveyed and mapped, and priority areas cleared.

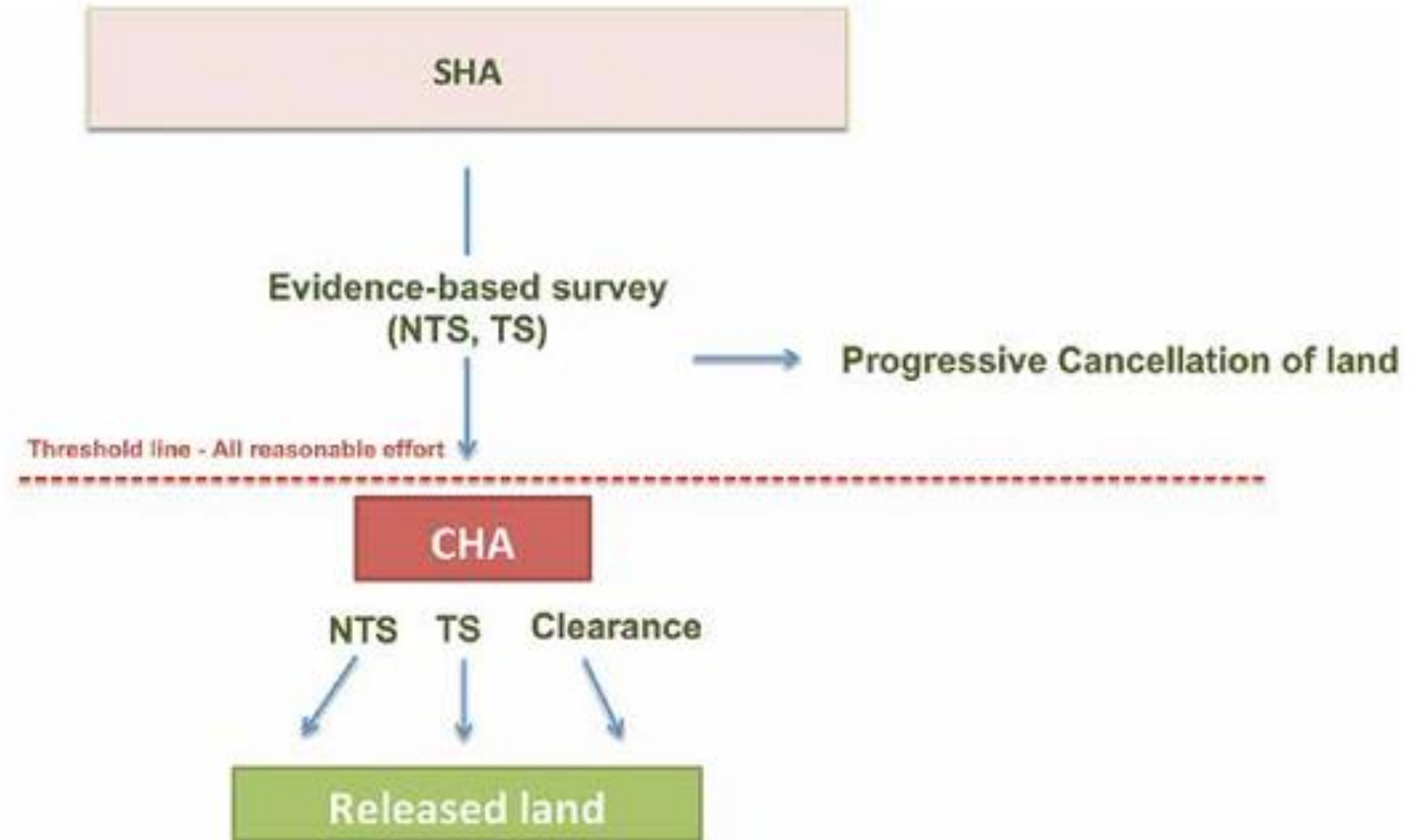


# PRINCIPAL LAND RELEASE PHASES

- Efficient land release is the least effort required to identify and remove a claim of contamination. Five main activities apply when setting out to identify and release CMR contaminated areas in a country:
- Desk Assessment
- Non-Technical survey
- Impact Assessment
- Technical survey
- Clearance



# PRINCIPAL LAND RELEASE PHASES



# ARTICLE 3



# STOCKPILE DESTRUCTION



Norwegian People's Aid

# ARTICLE 3

- The only way to be sure that no cluster munitions are ever used again is to ensure destruction of each and every cluster munition in stock.
- In terms of numbers of lives potentially saved, the CCM could be of even greater significance than the Mine Ban Treaty, because of the enormous volume of the stockpiles it affects. This is why immediate and speedy global implementation of Article 3 is essential.



# NPA APPROACH TO ARTICLE 3

- Based on perceived complexities related to stockpile destruction processes, NPA became involved in the field of cluster munition stockpile destruction.
- Through a programme adopted under the name Self-Help Ammunition Destruction Options Worldwide (SHADOW) we provide expert assistance to lower-economy countries requiring support in the destruction of their cluster munition stockpiles.
- It is very important that countries without industrial destruction capacities and with limited stockpiles see practical examples demonstrating that it is possible for a country to destroy its stockpile of cluster munitions; that it can be done in a relatively short time; that it can be relatively simple and affordable; and that there is donor interest to support them in this task.



# NPA APPROACH TO ARTICLE 3

**BOTH INDUSTRIAL AND  
SELF-HELP OPTIONS ARE  
NEEDED**

If all States Parties to the CCM are to be successful in destroying their stockpiles in time, then both industrial destruction facilities and complementary small-scale self-help stockpile destruction projects are necessary.

Given that industrial destruction option presents complexities, there is a clear need for expert-assisted national self-help options that can deal with smaller stockpiles, unusual types, or weapons that are in an unstable condition



# NPA APPROACH TO ARTICLE 3

## STOCKPILE DESTRUCTION METHODS



- Industrial solutions unavailable to many countries:
  - Limited donor funds;
  - Limited availability;
  - Often uneconomical;
  - Old or unstable ammunition;
  - Transportation issues.
- Need for an option that can deal with small quantities, unusual or unstable ammunition
- Not competing with industrial demilitarization



# NPA SHADOW APPROACH

“Self-Help Ammunition Destruction Options Worldwide” (SHADOW) is an NPA programme that provides expert assistance to lower-economy nations seeking non-industrial solutions in fulfilling their obligation to destroy cluster munition stockpiles under the CCM.

SHADOW was developed on the basis of studies carried out in 2008-2009 by C King Associates Ltd and NPA, with assistance from Golden West Humanitarian Foundation (GWHF). The studies were initiated because a clear need was identified for safe, practical and cost-effective solutions for local/national small-scale cluster munition stockpile destruction

The first country project was implemented in Moldova in 2010 and most recently Mozambique. It both proved SHADOW as a concept that can be implemented virtually anywhere and helped to refine the approach.





# NPA SHADOW APPROACH

## SHADOW key features

- In-country solution;
- Help for self-help;
- National ownership;
- Capacity-building;
- Local employment and investment;
- Minimal facilities required;
- Minimal transportation;
- Expert technical advice, training and implementation support
- Simple, practical, low-tech solutions;
- Possibilities for local recycling and re-use;
- Environmentally accountable and managed to minimise negative impacts;
- Safe;
- Fast;
- Affordable;
- Facilitates transparent reporting under the CCM.



# Our concept

- In-country solution.
- Help for self-help.
- National ownership.
- Tailored to the partner's resources and needs
- Capacity-building.
- Local employment and investment.
- Minimal facilities required.
- Minimal transportation.



# Phases in a country project

1. Verification and Feasibility Assessment
2. Research and Development (R&D)
  - Analysis of available options and recommendations
3. Detailed planning and preparation
4. Preparation and Proving phase
5. Set-up of Ammunition Processing Building and logistics
6. Operator training
7. Implementation of the stockpile destruction operation
8. Reporting and project closure

Already  
funded



# COUNTRY PARTNERSHIPS

- Moldova (completed 2010 (CM) / 2012 (PSSM))
  - Croatia (CM) (R&D finished)
  - Macedonia (CM) (completed 2013)
  - Serbia (CM) (R&D/P&P finished)
  - Mozambique (Completed 2015)
- + dialogue with a number of countries



# Moldova

## Project

78 RBK-series cluster bombs;  
6,348 submunitions of five types.

## Workforce

30 members of the National Army



## Implementation

17 days May-June  
2010



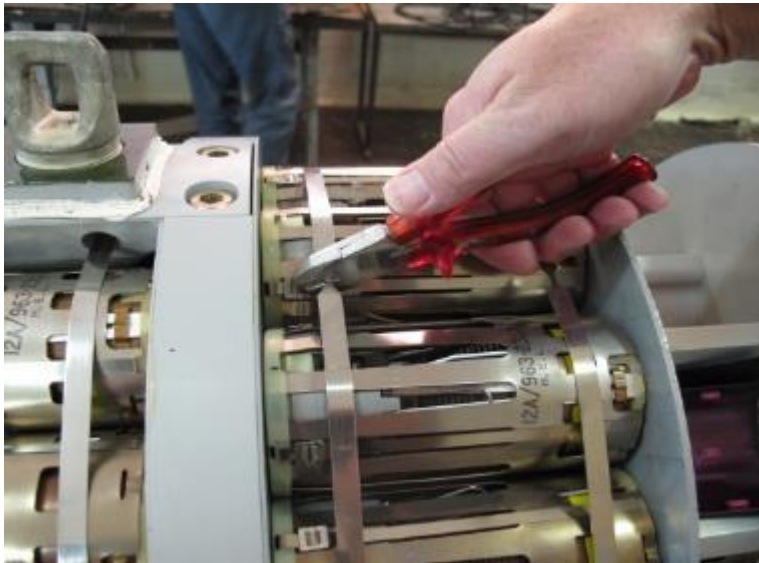
# Croatia

**2010**

- Verification and Feasibility Assessment carried out

**2011**

- R&D implemented and options and recommendations developed



# Macedonia

## 2012

- Verification and Feasibility Assessment carried out
- R&D implemented and recommendations developed

## 2013

- Project completed Oct 2013



*Removal of the M93 tail assembly permits an efficient demolition system*



*Access to the submunitions in the cassette involves several specialist tools*



# Serbia

2012

- Verification and Feasibility Assessment carried out
- R&D implemented and recommendations developed
- Preparation and Proving completed 2013



*Submunition disassembly can be done by hand using simple tools and procedures.*



*Most metallic components of the submunition can be separated for recycling.*





# Mozambique

## 2013

- Verification and Feasibility Assessment mission

## 2014

- R&D implemented and recommendations developed
- Implementation starting in October

## 2015

Completed



# THANK YOU

