



# **Pressure to clear : clearance in protracted conflict environments**

## **IRAQ**

**Directorate of Mine Action(DMA)  
Ministry of Health and Environment  
Republic of Iraq**

**15 February 2018 - Geneva**



## Contents

- IEDs Direct Impact on IDPs and Returnees.
- IEDs Clearance by Mechanical Assets.
- Mechanisms of IEDs.

| Province     | District     | Population Impacted by IEDs Locations with 3 Km Buffer |                | Impacted Population by District |
|--------------|--------------|--|----------------|---------------------------------|
|              |              | Families   | Individual     |                                 |
| Anbar        | Falluja      | 392  | 2,352          | 441,713                         |
|              | Haditha      | 467  | 2,802          | 90,277                          |
|              | Heet         | 19,457   | 116,742        | 140,238                         |
|              | Ramadi       | 31,906   | 191,436        | 206,957                         |
| Baghdad      | Abu Ghraib   | 995  | 5,970          | 200,736                         |
| Kirkuk       | Daquq        | 166  | 996            | 153,904                         |
| Ninewa       | Al-Hamdaniya | 4,270  | 25,620         | 608,870                         |
|              | Al-Shikhan   | 36   | 216            | 97,238                          |
|              | Mosul        | 5,028  | 30,168         | 513,718                         |
|              | Sinjar       | 3,420  | 20,520         | 130,623                         |
|              | Telafar      | 7,872  | 47,232         | 202,128                         |
|              | Tilkaif      | 1,700  | 10,200         | 133,526                         |
| Salah al-Din | Tikrit       | 6,806  | 40,836         | 111,878                         |
| <b>Total</b> |              | <b>82,515</b>  | <b>495,090</b> | <b>3,031,806</b>                |

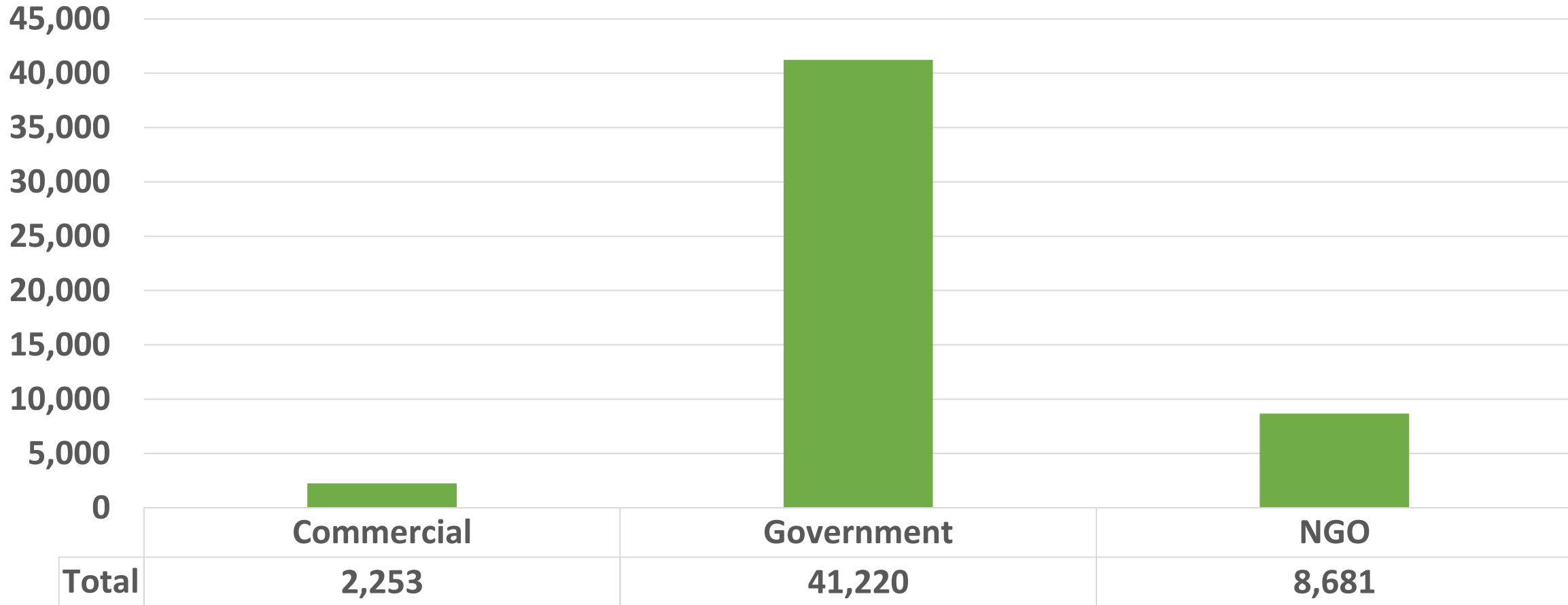
# IEDs Impact on IDPs & Returnees in Iraq



Source of population / International Organization for Migration (IOM) – IRAQ  
General population from ORNL for Land scan 2015 Global Population data:  
IDP Returnees from DTM

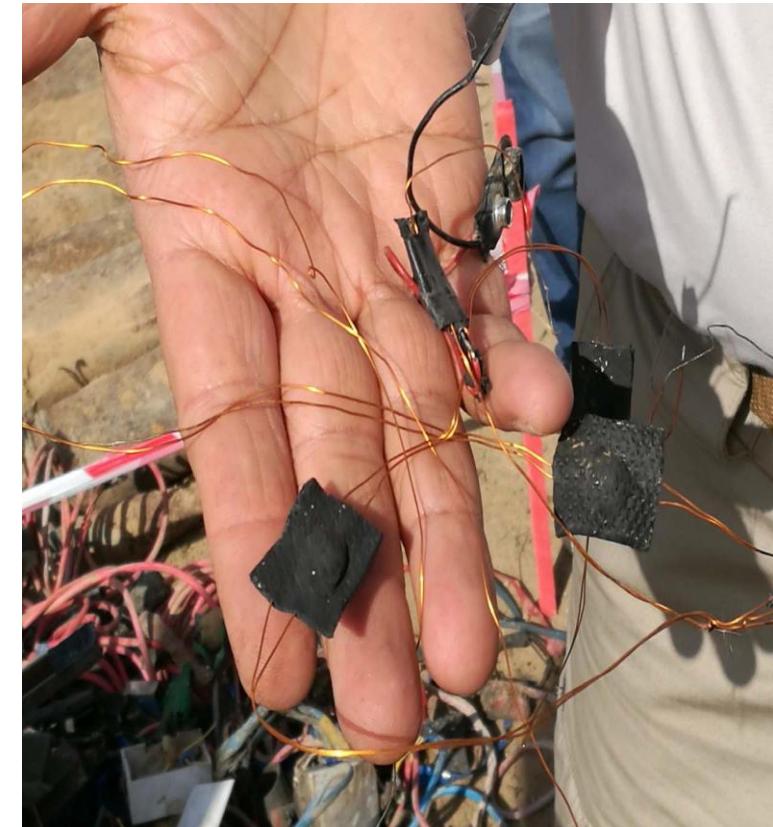


# IEDs Removed/Destroyed by partners



# Mechanisms of IEDs

1. Pressure
2. Release/ Anti lift
3. Vibrations
4. Wire and Wireless
5. Booby Traps
6. Photo Cell
7. Using mercury liquid theory

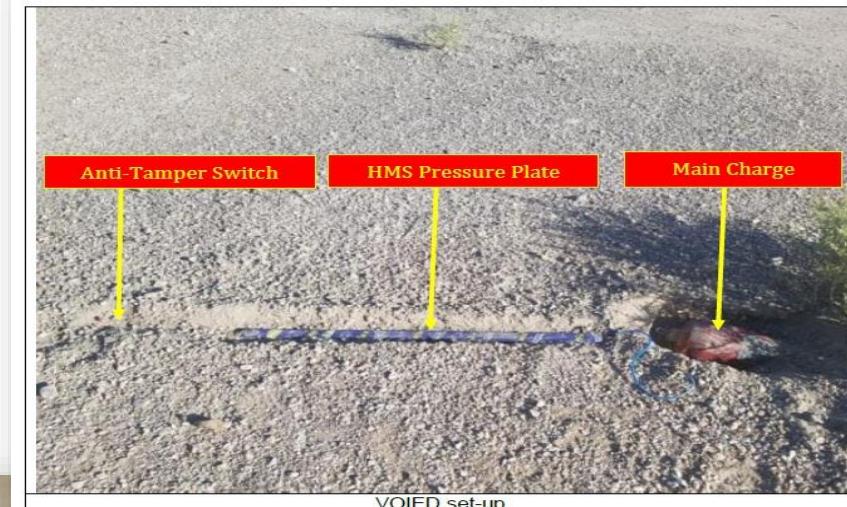


# Mechanism of Improvised Explosive Device Disposal (IEDD)

**Components for this type of VOIED, are listed below:**

- 1 x High Metal Signature HMS pressure plate.
- 1 x pressure release/anti-lift device.
- 1 x clothes pin/anti-tamper switch.
- 2 x 9V power source.
- 1 x commercial electric detonator.
- 1 x main charge utilizing approximately 15kg of ANAL (Ammonium Nitrate Aluminum) (Home-made Explosives).
- Container for HME have been standard fire extinguisher casings.

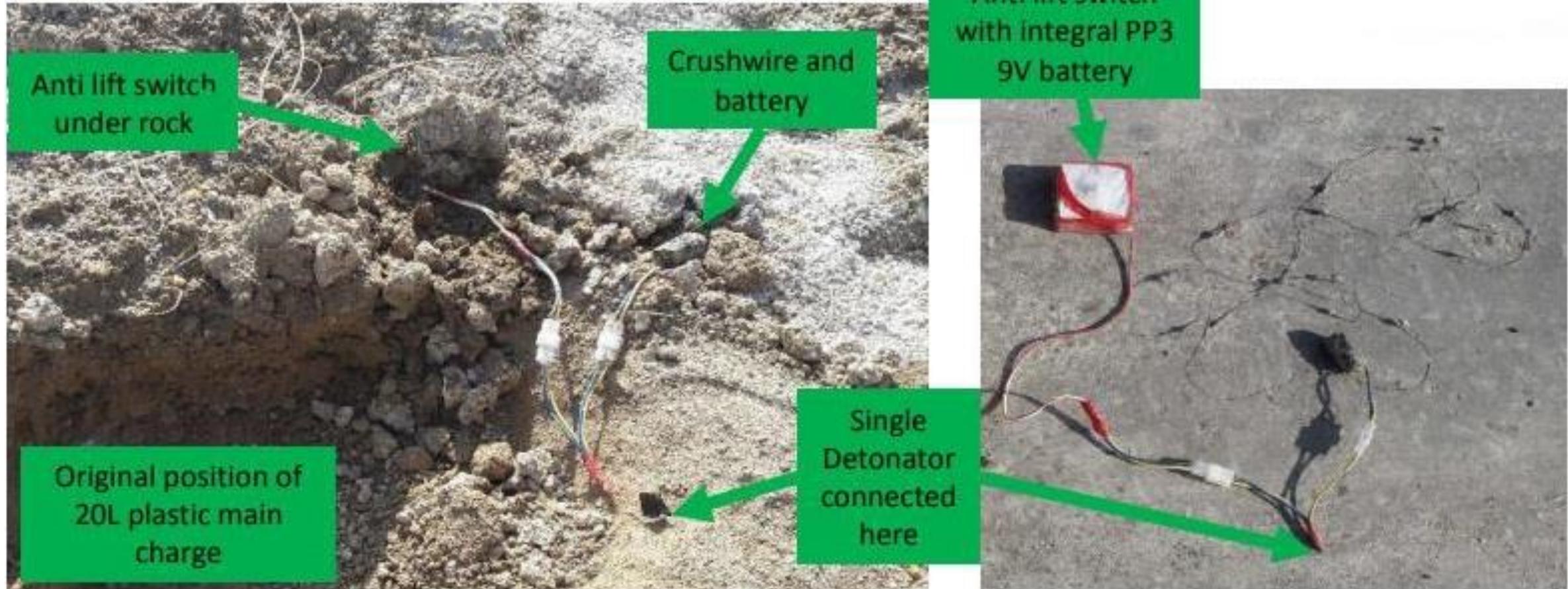
Pictures/Diagrams



Full component layout. Pressure release/anti-lift housing is well insulated with cellophane to protect against internal components against weathering. For size reference, the pressure plate is approximately 1 metre in length.



# Anti lift switch under rock



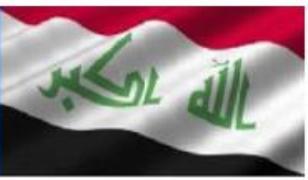
## Pressure Activator Types Used with IEDs Found in the Visited Sites





## IEDs Clearance by Mechanical





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