iMMAP

Provision of Information Management Services for UNMAS Iraq, 2018

UNMAS NEEDS DRIVEN. PEOPLE CENTRED.

Provision of Information Management Services for UNMAS Iraq is a dedicated information management and mapping unit for UNMAS in Iraq. The project analyses and disseminates IM products and maps covering the whole of Iraq in order to optimize planning, operations, coordination and risk mitigation measures for the Humanitarian Mine Action (HMA) through the protection cluster.

Key activities include collecting, analyzing, customizing and reporting mine action and security related information, integrated where necessary, to serve as a common service platform for humanitarian actors all across Iraq. This allows partners to immediately assess security situations and, using easily accessible, collated relevant and timely information, plan evidenced based, prioritized and safe operations. The team also provide regular detailed situational IM products highlighting accessibility, security threats and IED contamination. The products are customized to speed up access and service delivery of HMA and other humanitarian organizations to people affected by emergencies in Iraq.

Our Mission

Result 1
An established and fully functional UNMAS Iraq internal IM system in support of all operational activities. The IM system shall enable establishment of GIS referenced spot tasks, SHA and CHA. The IM system shall enable operational tasking, planning, implementation plan reviews, Quality Assurance, reporting (daily/weekly/monthly/final) and post-survey/clearance outcome assessments. Data entry backlogs shall not exceed one week.

Result 2
An established and fully functional UNMAS Iraq operational database. To facilitate tracking of all operational assets, recording of all daily outputs from all operational assets, the Quality Management of all operations, the analysis of mentioned outputs and the presentation of quantitative and qualitative KPIs through a digital dashboard. Data entry backlogs shall not exceed 48 hours.

Result 3
Analytical tools and information management products in post-survey/clearance impact assessments to UNMAS Iraq, for use towards donors and other UN agencies.

Result 4
The establishment of an UNMAS Iraq operational tasking system. Functionalities: compilation of task dossiers; delivery of task dossiers to contractors; receiving and reviewing implementation plans; recording of non-conformities during QA visits and final reporting from contractors once individual tasks are completed.

Result 5
The establishment of an UNMAS Iraq external IM system, capable of reporting tasks, RE sessions, outputs and GIS data of all operational activities, ensuring full compliance with OMA national and IKMAA regional IM requirements and standards.

Information Management

Data Processing
A key part of information management pipeline is data processing. Data forms (Completion and NTS), are sent to iMMAP as digital documents. The forms are then checked for completeness, missing information is then revised in accordance with mine action standards agreed upon between UNMAS and iMMAP. Where forms shared do not meet these standards, further consultations are made with UNMAS so that the missing data fields are revised appropriately. The forms are then logged into a dedicated mine action database for storage and further analysis

Mine Action Database for UNMAS
iMMAP has designed a dedicated mine action database as an interim measure for managing UNMAS mine action data and information. The database together with an inbuilt reporting tool now provides a platform for promptly responding to UNMAS information requirements for response, programming and planning. This information is also available in a fashion that could be intergrated with other similar systems in future.

Data Visualization

Maps production
Maps are a way of organizing information. Maps also act as tools for decision making. The project's GIS unit uses the datasets processed to create maps of hazard locations, areas cleared, items removed and road tracks from UNMAS missions, or any other request from UNMAS.

Additionally, high resolution satellite imagery from DigitalGlobe have been used to provide additional background information on the maps. The 60 centimeter resolution imagery are very essential especially due to insufficient comprehensive additional background information on for example road networks around Mosul.
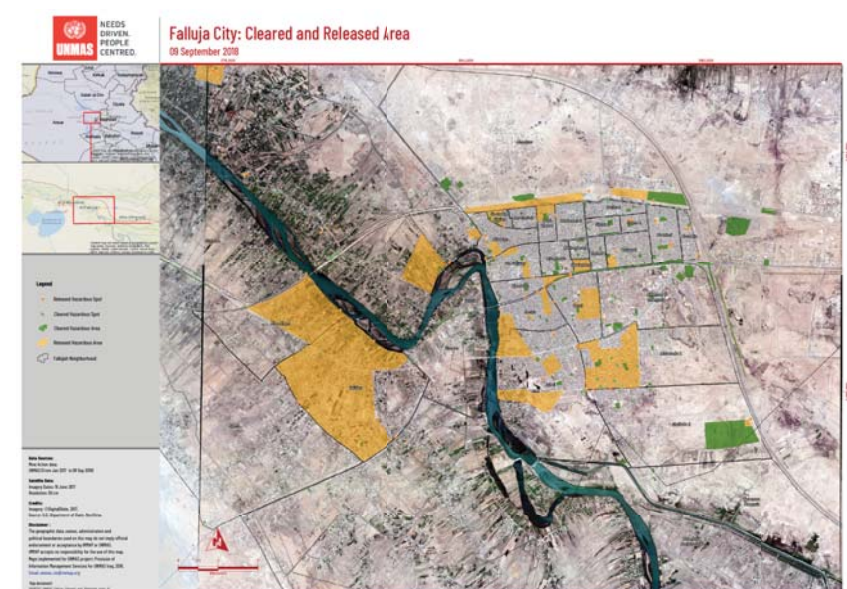
Security incidents data, collected by iMMAP, also provide further information that the project has used over the months for mapping. Locations of IED's, landmines and airstrikes are some of the reported incidents in the crowd sourced information. The maps are updated on a monthly basis, but can also be produced at any time on request.

Falluja City: Cleared and Released Area
09 September 2018

Mosul City: Cleared and Released Area
09 September 2018

Statistical analysis
How many NTS were done last month? What is the area in square meters, cleared, in the month of August? These are some of the questions asked by UNMAS to support their operations. Through our dedicated mine action database, we are now better placed to provide reliable figures for project management, as well as perform time series analyses on UNMAS mine action activities over a period of time for Mosul operation. The project is also receiving additional data from the south and processing as an interim measure as a long term solution is devised.
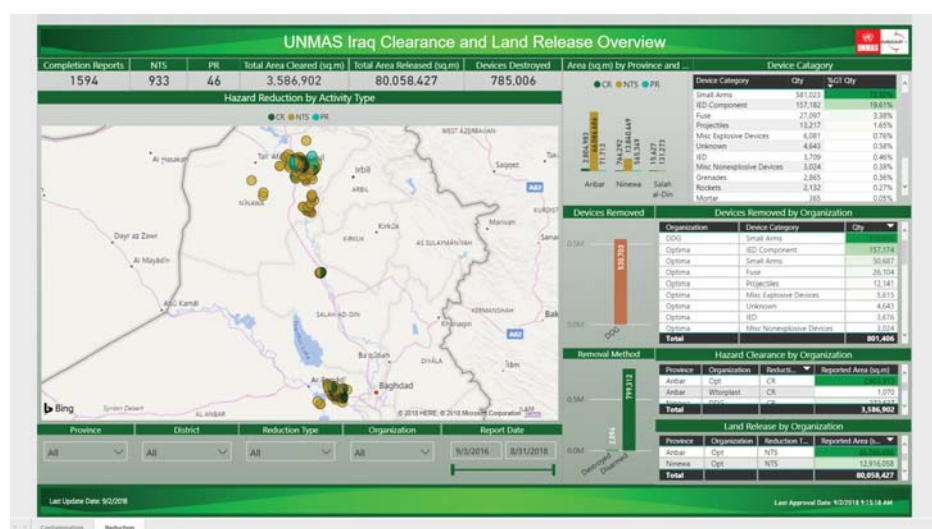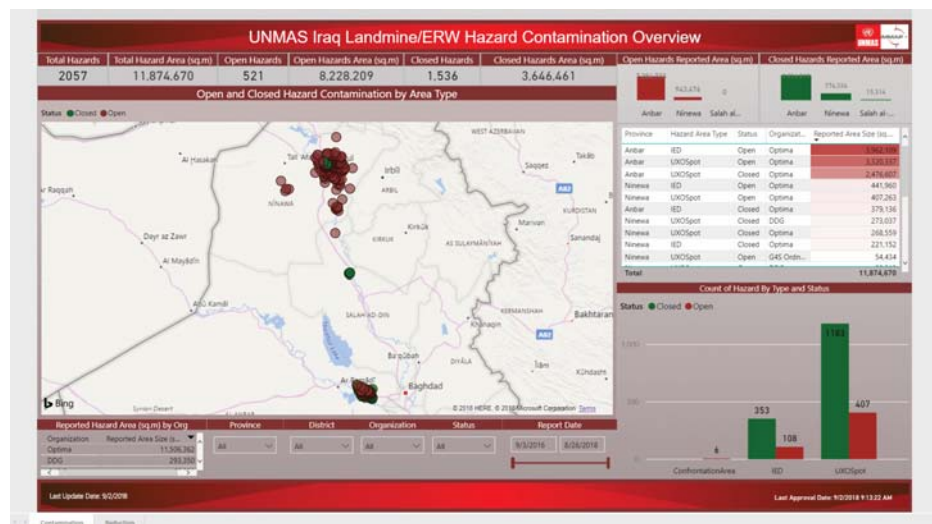
Interactive Dashboards

Interactive online dashboard consists of two tabs; one is for hazard showing the number of open and closed hazards and their corresponding area sizes, devices found, land area blockages and their intended uses. The second tab is for hazard reduction showing number of Non-technical surveys and clearances that have been conducted, how much area of land is released and cleared accordingly as well as how many devices diffused/moved. Both tabs can be filtered by dates, organization and activity types. (See online portal section).

Online Portal

iMMAP has built an array of online tools to support UNMAS as well as her partners in information processing, data visualization as well as tools to aid partners conduct reconnaissance desktop assessments before fieldwork.
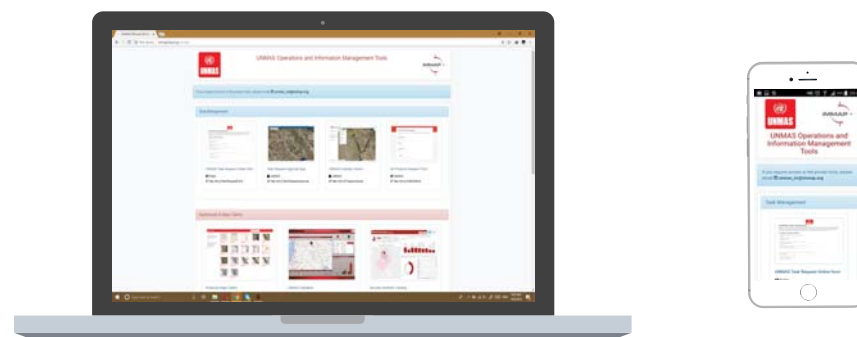http://www.immapiraq.org/unmas/

Task Request/approval tools

Task Request is an online tool for sending locations of suspected hazards to UNMAS remotely. The requests are then verified by UNMAS staff and tasked to an appropriate partner. The information collected is used by UNMAS to determine how to address the explosive hazards reported. On the other hand, the task approval app helps UNMAS assign the requests to appropriate partners. In that manner, it is possible to track pending tasks as well as those that have been assigned. iMMAP has also developed a messaging system as an add-on that sends alerts to UNMAS staff when new online request has been submitted. The app also sends reminders to staff to respond in cases where action has not been taken within a given timeframe.
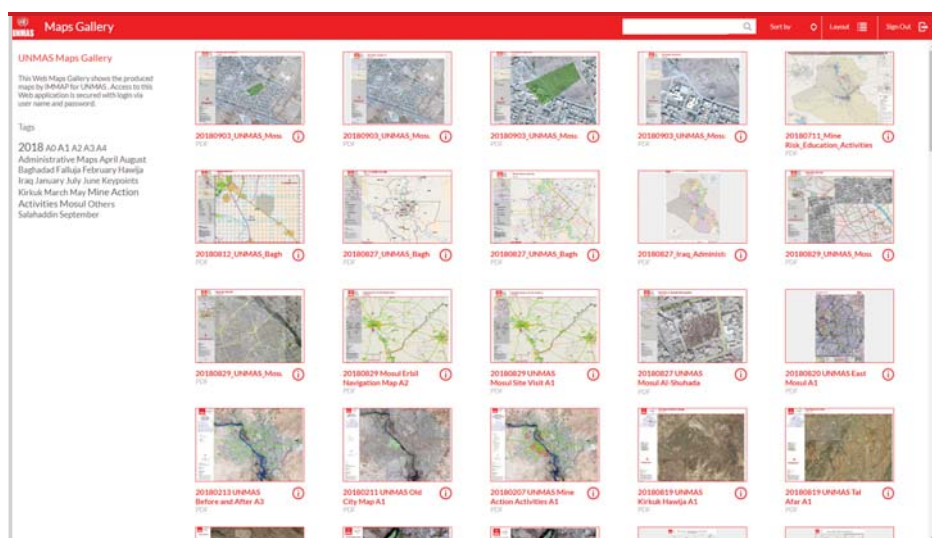
Image swipe/comparison app.

This is a side-by-side comparison of satellite imagery of the same location from two different time periods. The swipe app is useful for conducting a desktop survey by partners before going out to the fields to get an idea of extent of damages due to fighting. Additional functionality include location search using MGR system, drawing and printing. One of UNMAS partners recently reported that they "bought satellite imagery from a company six months ago and isn't going to be updated. The app has the latest imagery at no cost to them and makes it easy to see what the area looks like before going into the field". The swipe app is available for Mosul, Fallujah, Hawija, Ramadi and Tel Afar.
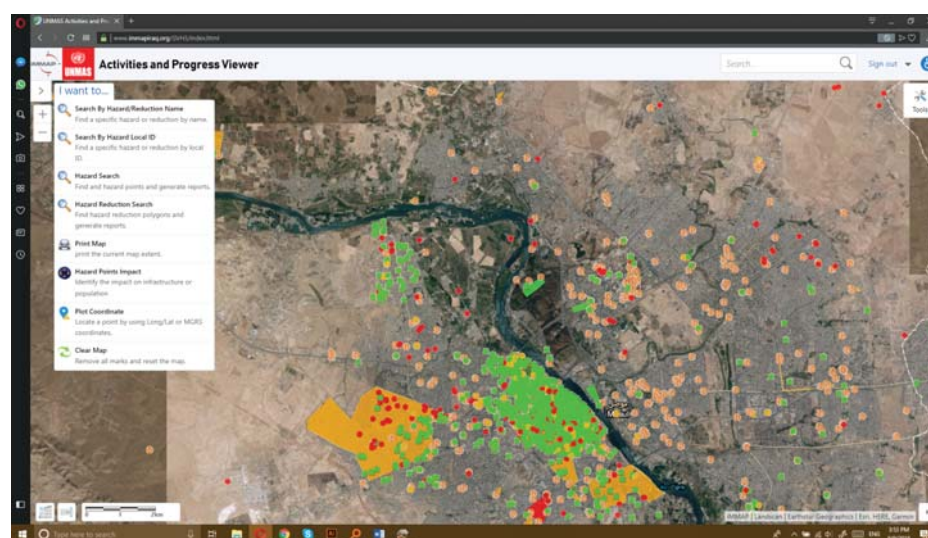

Maps Gallery

Web maps Gallery that shows set of maps produced by iMMAP for UNMAS, registered user account is required to access this application.

Activities Progress Viewer

Work in progress. Summary of task requests, task reports, GPS Tracks and UNDP Tasks. Will provide an overview of all the clearance and supporting tasks completed in Iraq.

Security Risk

iMMAP crowd sources security related information from various open sources including the media. This information is then georeferenced and stored in a database. Key application of the data is used as collateral information on areas where IEDs have been spotted, locations where air strikes have taken place as well as where landmines explosions have been witnessed. The key outcome is a security situation hotspot throughtout the country.

Better DATA
Improve data quality, collection and timeliness to stimulate sharing and coordination

Better DECISIONS
Analyze and visualize data to support better decision making

Better OUTCOMES
Maximize program outcomes and make a difference

iMMAP's services have facilitated informed and effective disaster risk management, emergency response, and development activities by enabling evidence-based decision-making for cluster/sector leads, critical NGO, and government operations. iMMAP's goal is to alleviate the suffering of victims of natural disasters and armed conflicts by providing the humanitarian community with a decision-making service through the provision of recent, reliable and appropriate geographical and strategic information.