

Job Description

REACH GIS OFFICER FOR YEMEN

(Reference:20/YEM/AO01)

BACKGROUND ON IMPACT AND REACH

REACH was born in 2010 as a joint initiative of two International NGOs ([IMPACT Initiatives](#) and [ACTED](#)) and the United Nations Operational Satellite Applications Programme ([UNOSAT](#)). REACH's **purpose** is to promote and facilitate the development of information products that enhance the humanitarian community's decision making and planning capacity for emergency, reconstruction and development contexts. REACH facilitates information management for aid actors through three complementary services: (a) need and situation assessments facilitated by REACH teams; (b) situation analysis using satellite imagery; (c) provision of related database and (web)-mapping facilities and expertise.

IMPACT Initiatives is a humanitarian NGO, based in Geneva, Switzerland. The organisation manages several initiatives, including the REACH Initiative. The IMPACT team comprises specialists in data collection, management and analysis and GIS. IMPACT was launched at the initiative of ACTED, an international NGO whose headquarter is based in Paris and is present in thirty countries. The two organizations have a strong complementarity formalized in a global partnership, enabling IMPACT to benefit from ACTED's operational support on its fields of intervention.

We are currently looking for a REACH GIS Officer to support our REACH Yemen team.

Department: REACH
Position: GIS Officer
Contract duration: 6 months
Location: Amman, Jordan
Starting Date: ASAP

COUNTRY PROFILE

The humanitarian situation in Yemen is one of the most severe in the world, with over 14 million people – or 40% of the population – in acute need of humanitarian assistance. The direct effects of the conflict – from airstrikes, to sieges of population centers, to the extensive use of mines – continue to have severe effects on the population. Other aspects of the conflict – especially blockades, the deterioration of basic service infrastructure, and the depreciation of the Yemeni riyal – also have enormous impact on Yemenis. Approximately 9.9 million people in Yemen are facing severe acute food insecurity, not necessarily because food is unavailable, but because they cannot afford to purchase it. Since 2016, Yemen has witnessed up to 1.3 million suspected cases of cholera, with outbreaks exacerbated by crumbling WASH infrastructure. The loss of livelihoods, when combined with the depreciation and general volatility of the Yemeni currency, has made the purchase of basic everyday necessities difficult for most Yemenis.

REACH has supported the humanitarian response to the Yemen crisis since October 2016, working extensively with the Shelter/NFI Cluster, the CCCM Cluster, the WASH Cluster, the Cash and Markets Working Group (CMWG), and the Assessment and Monitoring Working Group (AMWG).

The REACH team – based remotely in Amman – provides systemic assessment and IM support to the response through indicator review, tool design, coordination of data collection exercises, data analysis, output production, and IM platform design. Given the challenging context in Yemen, REACH is constantly working to find new and innovative ways to effectively inform the humanitarian response.

POSITION PROFILE

REACH Yemen is seeking an GIS Officer to join the REACH Yemen GIS team. The GIS Officer will be responsible for the processes and outputs related to database management, data processing, and mapping in country. They will be responsible for supporting the development and maintenance of a country/region database for the consolidation of all assessment-related and GIS data in country/region, and they will also support Assessment Officers on data cleaning, processing, and analysis using current data science tools. They will manage the rapid production of static maps on targeted crisis and issues as well as utilizing innovative platforms to design interactive maps and dashboards for improved data dissemination and interpretability.

RESPONSIBILITIES AND CORE OBJECTIVES

Objective 1: Technical support to the REACH Assessment Officers

Objective 1.1: Planning, preparation, and production of static maps

Under the supervision of the REACH Country Focal Point (CFP), the GISO will be responsible for:

- Understanding the link between spatial information and assessment data, and proactively suggesting map products based on the needs of the Assessment Officers
- Identifying and accessing relevant data sources
- Ensuring that the produced maps meet the requirements of REACH and concerned partners
- Creating routines and workflows for the production of customized map series

Objective 1.2: Creation and Maintenance of web-based interactive maps and dashboards

Under the supervision of the REACH Country Focal Point (CFP) and in collaboration with the Sectoral Unit Focal Point, the GISO will be involved in:

- Identifying clear, user-friendly and aesthetically pleasing solutions for web visualization of data based on feedback and needs.
- Understanding the framework of web applications and dashboards in order to correctly maintain them and apply modifications and improvements at need.
- Researching and implementing new concepts, strategies, or innovative approaches that have significant impact on user experience.

Objective 1.3: Spatial Analysis

Under the supervision of the REACH CFP and in collaboration with the IMPACT Data and Research Units, the GISO will be responsible for supporting the Assessment Officers by conducting spatial data analysis, including:

- Overlay analysis of spatial data using a variety of different formats, and non-spatial data.
- Statistical analyses (e.g. zonal statistics, density analysis, severity analysis) leveraging the geographic component of the information provided.
- Time series and change analysis of one or multiple variables, highlighting both the geographical and temporal aspects of the analysis.

Objective 2: Research-based technical support to Humanitarian Stakeholders

Objective 2.1: Remote sensing research

Under the supervision of the REACH CFP, and in collaboration with the IMPACT Data and GIS Units and all relevant stakeholders, the GISO is responsible for conducting applied research (e.g. Natural hazard modelling, damage and change detection) by leveraging remote sensing technology in support of humanitarian stakeholders. These activities will include:

- Bibliographical research on the research topic, harmonization of available data through Secondary Desk Review (SDR) in the form of static maps, interactive dashboards or Web Maps.
- Plan and develop satellite-based modelling techniques (e.g. natural hazard susceptibility and early warning) which highlight hazards and risks for the country. Understand, maintain and improve models already present and running, in order to use them upon request.
- Suggest and conduct satellite-based analyses, such as rapid damage assessments, change detections, natural disaster mapping, and time series. Such activities will be based on a variety of different sensors including multispectral optical sensors, SAR sensors and very high resolution optical sensors.

Objective 2.2: Satellite tasking

Under the supervision of the REACH CFP, and in collaboration with the IMPACT Data and GIS Units, the GISO will be responsible for coordinating the tasking and order of relevant satellite images upon need. This includes:

- Understanding the type of images needed for each request (i.e. level of resolution and type of sensor), as well as the advantages and limits of these, contextualized to the geographic area and analysis. Understanding the timeline and budget needed for ordering them.
- Selecting relevant areas of interest where to focus the image tasking, taking into account the size of the image swath and the type of analysis.
- Engaging with UNOSAT, in collaboration with IMPACT GIS Unit, for ordering or tasking images and/or analyses.

Objective 2.3: Engagement with stakeholders

Under the supervision of the REACH CFP, the GISO will be responsible for engaging with stakeholders and attending technical meetings, in order to contribute with the geospatial component to the development of projects and initiatives in collaboration with external partners.

REQUIREMENTS

- Strong academic qualifications related to GIS, Data Science, Information System/Management, Geography, or related disciplines;
- Written and spoken fluency in English required;
- Minimum 1 year of experience in GIS or Data Science, preferably in the humanitarian context;
- Strong background in Earth Observations, GIS and Geography.
- Proficiency in the use of the most common GIS software packages (ArcGIS Pro, QGIS);
- Relevant experience with online data visualization programs such as Power Bi, Tableau, ArcGIS Online;
- Knowledge of Adobe InDesign and Illustrator or equivalent;
- Good knowledge of Remote sensing tools such as ESA SNAP, Orfeo Toolbox, GRASS;
- Knowledge of Google Earth Engine;
- Knowledge of a programming language such as Python or R is an asset.
- Ability to work in a team;
- Good organizational, communication and interpersonal skills;
- Ability to think creatively in terms of tool and process development;
- Flexibility and adaptability to ever-changing needs and responsibilities;
- Understanding of the Humanitarian Coordination System;
- Understanding of the Humanitarian Programme Cycle.

CONDITIONS

- Salary defined by the IMPACT salary grid; educational level, expertise, hardship, security, and performance are considered for pay bonus
- Additional monthly living allowance provided in country by IMPACT's partner ACTED
- Food and lodging provided at the organisation's guesthouse/or housing allowance (depending on contract length and country of assignment)
- Transportation costs covered, including additional return ticket + luggage allowance
- Provision of medical, life, and repatriation insurance + retirement package