

## REACH YEMEN – JUNIOR GIS OFFICER

(Reference: 21/YEM/JGISO)

### 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 organization 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 Junior GIS Officer to support our REACH Yemen team.**

**Department:** REACH

**Position:** Junior GIS Officer

**Contract duration:** 6 months

**Location:** Amman, Jordan

**Starting Date:** ASAP

### CORE RESPONSIBILITIES

#### Objective 1: Technical support to other Sectoral Units

##### 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 Sectoral Units' needs.
- 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 Sectoral Units 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 the Clusters on the field. These activities will include:

- Research on the state-of-the-art of remote sensing, 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

Essential:

- Strong academic qualifications related to GIS, Remote Sensing, Data Science, Geography or related disciplines;
- Advanced written and spoken English required;
- Minimum 1 year of experience in GIS or Data Science, preferably in the humanitarian context;
- Strong background in Remote Sensing and GIS;
- Proficiency in the use of the most common GIS software packages (ArcGIS Pro, QGIS);
- Proficiency in Python for Data Science;
- Good knowledge of Google Earth Engine;
- Good knowledge of Power Bi;
- 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;

Desirable:

- Proficiency in R;
- Knowledge of remote sensing tools such as ESA SNAP, Orfeo Toolbox, GRASS;
- Experience with Tableau or ArcGIS Online;
- Knowledge of Adobe InDesign and Illustrator or equivalent;
- Knowledge of database management;
- Understanding of the Humanitarian Coordination System;
- Understanding of the Humanitarian Programme Cycle;