

DRR GIS SPECIALIST – UKRAINE (WITH TRAVEL TO ARMENIA)

(Reference: 21/UKR/GISS)

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 DRR GIS Specialist to support our teams in Ukraine and Armenia.

Department: IMPACT
Position: DRR GIS Specialist
Contract duration: 12 months (renewable)
Location: Kyiv, Ukraine / Yerevan, Armenia
Starting Date: ASAP

COUNTRY PROFILE

The Eastern Partnership (EaP) is a joint initiative of the European Union (EU) together with its Member States, and six Eastern European partners governing the EU's relationship with the post-Soviet states of Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine. IMPACT is currently supporting the humanitarian and development programming in Ukraine and Armenia.

Ukraine

In May 2021, the conflict in Ukraine entered its eighth year. The 427-km contact line that separates government- from nongovernment-controlled areas has, and continues to, severely disrupt the lives of people in surrounding areas. The conflict in Ukraine continues to affect over 5 million people, of whom 3.5 million are in urgent need of protection and humanitarian assistance. In parallel, the population remains vulnerable to pre-existing natural and industrial hazards. Both conflict-related damage as well as dilapidation due to lack of maintenance of systems and infrastructure which could otherwise cope with these hazards have heightened vulnerability, alongside limited capacity to plan and prepare. The environmental impacts on the region from

the conflict, coupled with climate change and increased societal vulnerability has raised concerns around disaster risk in Eastern Ukraine and the Sea of Azov Area.

On the occasion of the International Day for Disaster Risk Reduction, 13 October 2019, the 3P Consortium (ACTED, IMPACT Initiatives, Right To Protection, the Austrian Red Cross, the Danish Red Cross and the Ukrainian Red Cross) launched its programme to reduce vulnerability to disaster risks in Eastern Ukraine by preparing, preventing and protecting civilian populations who are at risk of major disasters.

In 2021 and into 2022, IMPACT and the 3P Consortium (Prepare, Prevent, & Protect civilian populations from disaster risks in conflict-affected areas) will be expanding its focus on the Natural and Anthropogenic hazards in Eastern Ukraine and Sea of Azov area a part of IMPACT's assessment work on Disaster Risk Management.

Armenia

Since September 2020, fighting in Nagorno Karabakh (population of 150,000) has killed and injured hundreds of civilians on both sides of the line of contact that separates Azerbaijan and the disputed territory. In October and November, shelling in the main cities of NK has displaced NK residents to Armenian cities bordering NK and larger cities e.g. Armenia. An estimated 90,000 people have been displaced according to the Armenian Ministry of Foreign Affairs, despite official figures not being publicly available. Shelling and missile attacks have damaged homes and critical infrastructure (ICRC). A ceasefire was brokered by Russia in November and signed by both Armenia and Azerbaijan. Immediate stop to fighting was agreed and a Russian peacekeeping mission in NK with a mandate of 5 years will be deployed. Under the terms of the agreement, control over several districts surrounding NK will be handed-over to Azerbaijan, while Russian peacekeepers will guarantee security in certain districts of NK and critical connecting corridors such as the Lachin corridor connecting Armenia and NK and a new link between Azerbaijan and Nakhchivan.

Ranked 45 out of 191 countries by the 2021 Inform Risk Index , Armenia is classified as having high risk of disasters, due to i) significant exposure to hazards including earthquakes, floods, and drought, ii) a lack of institutional capacity to manage disaster risks, and iii) uprooted vulnerable groups, exacerbated by the COVID-19 pandemic and the 2020 Nagorno-Karabakh conflict. From 1994–2014, the country lost over \$1.5 billion to natural hazards like floods, drought, earthquakes, making it one of the most seismically active regions of the world. While large areas of the country face drought risk (Ararat valley), others (including the Ararat and Shirak valleys) face increased flood risk. Around 40,000 people are affected by flooding each year, with estimates of the annual cost to national GDP ranging between \$20 to \$100 million. Additionally, around 15 % of the total population is exposed to landslide hazard, primarily in foothill and mountain areas, causing an average annual damage of \$10 million.

The risk of disasters in Armenia is expected to rise in the near future, especially due to: i) an increase in extreme natural disasters, primarily due to climatic change, and ii) an increased vulnerability of population to these natural events.

The findings from IMPACT Initiative's forthcoming Early Recovery Needs Assessment (hereafter referred to as a Capacity and Vulnerability Assessment [CVA]) highlight climate-change driven hazards as the top disaster risk to families and livelihoods reported by host and refugee-hosting households alike. Households interviewed viewed natural hazards as a bigger risk than even COVID-19 and conflict escalation. Moreover, households commonly reported that, although they are aware of the actions required to mitigate risks, they lack the resources and know-how in terms of what actions to undertake in case of crisis. A key recommendation from this forthcoming report include early recovery efforts that build the capacity of local communities and service providers to prepare, protect, and prevent against climate-change driven hazards specific to their region. Given that service providers Kotayk and Syunik reported not receiving adequate

resources in the five years prior to data collection, disaster risk preparedness and management efforts should ensure area-based, locally tailored assistance beyond Yerevan.

FUNCTIONS

The DRR GIS Specialist is responsible for providing technical DRR expertise to the mission of Ukraine and Armenia, including topics around the Environment and Climate Change, particularly through the application of geographic information systems (GIS) and remote sensing (RS). Particularly on relevant aspects of research design, support in designing data collection tools, ensuring (spatial) data quality, geo-spatial and remote sensing analysis, drafting of maps, reports, and production of web maps and information management systems.

In his/her mission, the DRR GIS Specialist will report to IMPACT's Country Coordinator. IMPACT's global partner ACTED manages all Administrative, Security, and relevant Logistics and Finance issues. S/he will therefore fully abide to ACTED's Security, Administration, and relevant HR, Logistics and Finance rules and regulations.

RESPONSIBILITIES

The responsibilities of the DRR GIS Specialist include the following in coordination with the DRR Unit Lead:

1) INTERNAL TECHNICAL SUPPORT, COORDINATION, AND STRATEGIC INPUT:

- Support the development and maintenance of a coherent DRR strategy across IMPACT and ACTED intervention in Ukraine and Armenia, in line with IMPACT's global strategy.
- Defining and maintaining IMPACT DRR project implementation modalities, methodologies and technical standards in line with global standards and trends but contextualized to the Ukraine and Armenia stabilization programming contexts.
- Ensure cross-project synergies by maintaining an overview of all IMPACT and ACTED DRR activities and ensure integration with other projects as relevant
- Co-lead with relevant IMPACT and ACTED leads, technical tools, research, best practices and lessons learned internally and externally through publications, networks, working groups, events and conferences.
- Provide technical inputs into proposal design and ensure new or adapted projects integrate lessons learned and good practise.

2) DRR, ENVIRONMENTAL, & CLIMATE RESEARCH PLANNING:

- In coordination with the DRR Unit Lead, relevant Assessment Officer(s), support or lead on DRR, Environmental, and Climate assessment planning in line with project and program objectives and with IMPACT's research cycle and other relevant guidelines;
- Contribute to draft assessment ToRs with a specific focus on the analysis plan, and related mapping, as well as data management plan;
- Develop geo-spatial analysis of assessment areas to be used in developing daily assessment plans, field movement plans and accompanying operational maps for field teams;
- In coordination with relevant assessment officer(s), support construction of quantitative sample.

3) REMOTE SENSING RESEARCH IMPLEMENTATION

- Harmonisation 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, 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;
- Liaise with IMPACT HQ on the procurement of UNOSAT services and satellite imagery.

4) DRAFTING OF PRODUCTS

- Ensure accurate linkages between spatial databases and assessment data;
- Maintain regular communication with IMPACT HQ on progress and deadlines for GIS products;
- Ensure the drafting of timely and accurate GIS products, which comply with IMPACT's guidelines

5) EXTERNAL ENGAGEMENT

- Represent IMPACT in relevant Environment and DRR meetings/working groups and support the presentation of research findings to relevant third parties in order to enhance their use and impact;
- Follow up on issues identified by partners or during meetings/working groups;
- Promote an active use of datasets, GIS and RS products and research findings by partners and the broader humanitarian community for their decision making.

6) CAPACITY BUILDING

- In coordination with senior management team, support the development and implementation of capacity training plans in DRR, particularly on GIS, IM, and Remote sensing capacities, for local and national emergency management authorities/local partners
- Be available to provide regular support and technical backstopping.

REQUIREMENTS

- **Academic:** Excellent academic qualifications, preferably including a Master degree related to GIS, Remote Sensing, Data Science, Geography or related disciplines with a focus on DRR, the Environment, or Climate Change;
- **Disaster Risk Management knowledge:** Should have proven experience and knowledge on major Environmental, DRR, and Climate Change action plans
- **Research skills:** Advanced experience with geo-spatial information management and analysis, and excellent spatial analysis skills;
- **Software skills:** Advanced knowledge of ESRI suite software (ArcPro, ArcMap, ArcGIS Online); good knowledge of Google Earth Engine; advanced knowledge of Microsoft office including Excel;

knowledge of R, STATA, python or equivalent statistical software an advantage; knowledge of Adobe Suite, particularly InDesign and illustrator an asset;

- **Knowledge of remote sensing tools:** Good knowledge of tools such as ESA SNAP, Orfeo Toolbox, GRASS, Erdas imagine;
- **Years of work experience:** At least 5 years of relevant working experience in the DRR;
- **Familiarity with aid system:** Familiarity with the aid system is an advantage; experience in a humanitarian or development context an asset;
- **Management skills:** Proven ability to build assessment capacity of team through training and mentoring
- **Communication/reporting skills:** Excellent communication and drafting skills for effective reporting;
- **Multi-tasking skills:** Ability to multitask with tight deadlines, on numerous research cycles;
- **Level of independence:** Proven ability to work independently;
- **Cross-cultural work environment:** Ability to operate in a cross-cultural environment requiring flexibility;
- **Experience in geographical region:** Past experience in the region is desirable;
- **Language skills:** Fluency in English required. Russian and/or Ukrainian an asset.
- **Security environment:** Ability to operate in a complex and challenging security environment.

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