

**SAMPLING & ANALYSIS EXPERT
HAZMAT EXPERT
(Senior Technical Adviser)**

GENERIC TERMS OF REFERENCE

UN Environment / OCHA Joint Unit¹

Disasters triggered by natural hazards such as earthquakes and floods often result in significant secondary environmental impacts including the potential for polluted water and related health hazards. These secondary impacts can pose immediate, life-threatening risks to humans (both local communities and responders), the aquatic environment as well as longer-term challenges to water monitoring and water use for agricultural purposes. Therefore, a key element of humanitarian response is the rapid risk assessment of water quality and water pollution and the mitigation thereof.

Responsibilities

- Work with national and international emergency responders to address acute life threatening situations derived from land- and mudslides, under the guidance of the UN Resident Coordinator;
- Provide sampling & analysis equipment to the mission for immediate analysis on the spot (as agreed);
- Ensure the export of samples from the affected country to an accredited laboratory (as agreed with partners) and interpretation of samples
- Monitor communication of results of the analysis to appropriate authorities, including providing follow-up recommendations (immediate and longer term);
- Identify any outstanding expertise or equipment needs to address any immediate risks and impacts to humans and the (aquatic) environment from and for the polluted water body (if necessary);
- Support the transition from relief to recovery, by advising responsible actors at national and international level (Government and Humanitarian Country Team (HCT)) of issues such as further sampling and analysis, continued water quality monitoring or water management (immediate and long-term).

Expected Actions

- Support relevant agencies to take, consolidate identify steps following the sampling analysis and provide recommendations to the national and local authorities and the UN Resident Coordinator (or equivalent) to minimize and/or mitigate secondary impacts and promote the integration of appropriate actions into the overall disaster response strategy;
- Development of a sampling plan, identification of an appropriate laboratory for conducting analysis and the interpretation of analysis results;
- Communicate rapidly and regularly all findings of the analysis to national authorities, as well as the Joint Environment Unit, emphasizing the possible need for additional specialized expertise and/or additional equipment as required;

¹ For more information on the Joint Environment Unit: <http://ochaonline.un.org/ochaunep>

- Identify, where applicable, pre-existing contributing environmental factors contributing to the water pollution (e.g. chemical pollution/composition, aquatic diseases, deforestation, lack of prevention and preparedness);

Note: Contact with media, including interviews, will only be undertaken with consent of the UN Resident Coordinator.

Education and work experience

- Solid background in (hazardous) waste water management, water quality monitoring, Applied Sciences, geohydrology, or combination thereof.
- Experience in the development of a sampling plan, sampling and assessment and interpretation of results
- Ability to distinguish immediate response actions from medium to long-term mitigation, rehabilitation and reconstruction activities;
- Familiarity with rapid sampling & assessment of water quality and ability to conduct such rapid analysis in a natural disasters and emergency context;
- Familiarity with management of operational support functions including telecommunications, logistics and basic field security;
- Ability to coordinate with international and local agencies involved in disaster response;
- Ability to rapidly assess basic needs and local capacities;
- High motivation, coupled with an ability to improvise effectively in rapidly changing situations with minimal guidance and support;
- Team skills required for working in a multi-disciplinary, multi-national team in field conditions of hardship with an ability to assume authority as and when needed;
- Availability for short-notice mobilization (within 6 to 48 hours) and must be able to stay in the field for up to 3 weeks;
- Availability for additional follow-up, collaboration and editing of mission report after the official mission deadline, if required
- Knowledge of MS Windows and MS Office and ability to operate standard IT and communications equipment.