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Graded Assignment for student – Carles Lara ( Submission date: 20-01-2021) .

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**1.- Provide a link to at least one news story or article about the country and the crisis you selected.**

The humanitarian crisis selected is derived from the political conflict aggravated since November 2020, in the Tigray region in Northern Ethiopia between the regional government leaded by TLPF ( Tigray's People Liberation Front ) and Ethiopian Federal Government presided by Prime Minister Abiy Ahmed.

58.334 refugees fleeing mainly into East Sudan have been registered by UNHCR during the period 07.11.2020 thru 15.01.2021.

- Short video from MSF Karline Kleijer, Head of Emergencies (12-01-2021), briefing Tigray response.
  - [https://youtu.be/AxQ\\_HECahbo](https://youtu.be/AxQ_HECahbo)
- ICRC – 03-12-2020 - Photos and stories from Ethiopian refugees who fled Tigray for Sudan.
  - <https://www.icrc.org/en/document/ethiopian-refugees-fled-tigray-into-sudan>
- Situation report from OCHA – source Reliefweb – as of 15.01.2021.
  - <https://reliefweb.int/report/ethiopia/ethiopia-tigray-region-humanitarian-update-situation-report-15-january-2021>
- UNHCR site for Tigray emergency.
  - <https://www.unhcr.org/ethiopia-tigray-emergency.html?query=Tigray>

**2.- Briefly describe the humanitarian context in your chosen country.**

Political conflict context : [https://en.wikipedia.org/wiki/Tigray\\_War](https://en.wikipedia.org/wiki/Tigray_War)

Ethiopia is the third largest refugee-hosting country in Africa, sheltering 797.191 registered refugees and asylum seekers as of 30.11.2020, the overwhelming majority originated from South Sudan, Somalia, Eritrea and Sudan.

After several months of growing political tensions, the situation in Tigray ( Northern Ethiopian region bordering with Eritrea ), escalated on 4<sup>th</sup> November when the Office of the Ethiopian Prime Minister, Abiy Ahmed , accused the TLPF – Tigray People's Liberation Front, heading the regional government of an unprovoked attack on the Ethiopian National Defense Forces ( ENDF ) Northern Command.

In response, the Prime Minister announced a military offensive, named “Rule of Law Operation” against the TPFL in Tigray.

A six months state of emergency was declared, and electricity, telephone and internet services were consequently shut down in the Tigray region.

On 28<sup>th</sup> November, the Government of Ethiopia declared the military operations in Tigray to be over. However, armed clashes and violence have continued to be reported.

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Prior to the crisis, the population in the Tigray region of Ethiopia included some 96,000 registered Eritrean refugees, approximately 100,000 Ethiopian internally displaced persons (IDPs), and some 500,000 people dependent on food relief assistance.

In addition, 1 million people received safety net assistance.

The conflict in the Tigray region in Ethiopia has led to immediate and large-scale forced displacement across the border into East Sudan.

The refugee influx to East Sudan started on 9 November since then the movement dramatically increased with over 58,000 refugees crossing into Kassala and Gedaref States.

In an effort to prevent further escalation of the conflict, the African Union and several other third parties have offered mediation.

An agreement was signed at the end of November 2020 between the UN and the Government of Ethiopia on access in government-controlled areas.

However, insecurity has continued in the Tigray region and the implementation of the agreement is still ongoing. Unfortunately, a further deterioration of the crisis will also have implications for the wider region of East and Horn of Africa.

The complexity of the situation within Ethiopia, communication disruptions, the magnitude of the refugee flows, the remoteness of the locations where refugees are arriving or may arrive, and the limited infrastructure in most of the border regions compound the challenges in addressing this growing humanitarian crisis.

- Overall, the humanitarian situation of the population is of extreme vulnerability after nearly two and half months of fighting.
- The security situation in Tigray Region remains dire with reports of sporadic fighting and population movement in search of safety, particularly in rural areas.
- In addition to hampered physical access into many parts of Tigray, mobile network and access to internet remain cut-off except in some areas in the south and west of the region.
- The humanitarian situation is severe as people have now lived through nearly two and half months of conflict **without adequate access to food, water and health services.**
- Deeply dependent on imports of goods, Tigray has been cut-off from trading since November. This, coupled with the impact of insecurity on the harvest, left many at risk of hunger.
- Despite the challenging security environment and bureaucratic obstacles, humanitarians continue to deliver limited assistance in areas where access has been granted by authorities.

More information is accessible from OCHA Ethiopia – access snapshot report – 15-12-2020.

- <https://reliefweb.int/report/ethiopia/ethiopia-access-snapshot-tigray-region-15-december-2020>

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**3.- List up to key Public Health issues present in your chosen country and briefly describe important aspects.**

**For example, WATER and SANITATION, HEALTH CARE, NUTRITION, SHELTER, PROTECTION...**

### **3.1. WATER and SANITATION.**

Access to repair water and sanitation systems, as well as provision of fuel and spare parts are needed to ensure the restoration of services and prevent the spread of water-borne diseases and epidemics, including COVID-19.

### **3.2. HEALTH CARE – NUTRITION.**

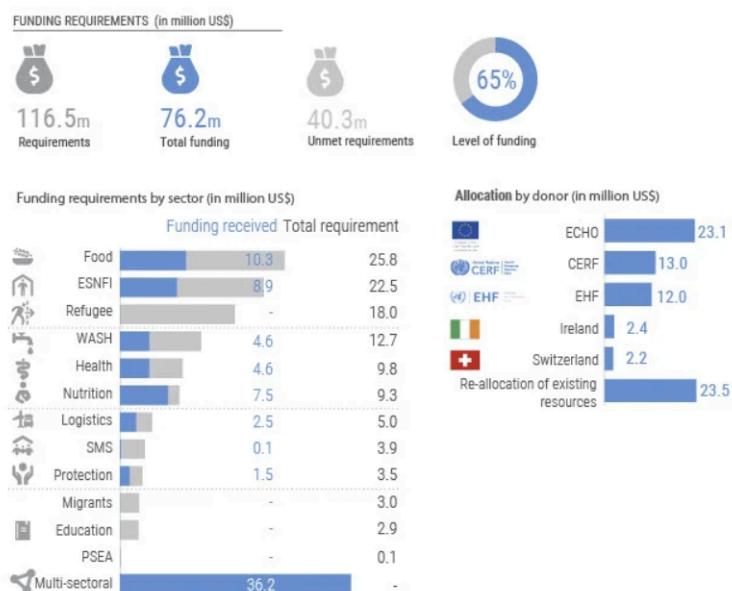
In addition to food, water, sanitation and hygiene, protection, health (including psycho-social support), safety and security remain some of the priority concerns, as well as access to public services.

Pre-crisis malnutrition in Tigray was already on the rise due to COVID-19 and desert locust infestation, with a 34 per cent increase registered in admissions of severely malnourished children between January and August 2020, compared to the same time in 2019.

### **3.3. FOOD SECURITY.**

With supply routes cut-off and the harvest season impacted by the conflict, reports indicate that food is not available or is extremely limited in markets, posing increased risks of malnutrition.

As of 15.01.2021 ( source OCHA Situation report – Tigray Region Humanitarian update ), here are shown the funding requirements in million USD for each area of intervention.



Source :

- o <https://reliefweb.int/report/ethiopia/ethiopia-tigray-region-humanitarian-update-situation-report-15-january-2021>

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**4.- Select one of the major issues you listed in your answer to prompt 3.**

**Think about the problem in the context of the course modules, and what type of information you would need to design a program to address the issue you have selected.**

The area of intervention selected for this exercise is **WATER and SANITATION**.

Initial assessments or rapid WASH assessments are typically done **within the first 72 hours following a refugee emergency.**

In order to obtain the best complete picture possible of the WASH needs, the rapid assessment should collect an equal amount of both qualitative (descriptive) and quantitative (numerical) data.

A comprehensive WASH assessment report should contain maximum 20 pages with :

- **Executive Summary:** 2-3 pages, including key background information, needs identified and recommendations.
- **Introduction:** Background to comprehensive WASH assessment, objectives, why the assessment was conducted, overview of current situation, what the assessment aimed to achieve.
- **Methodology:** How the assessment was conducted, when, which methods and tools were used.
- **Limitations and challenges:** Description of any problems faced in achieving the overall objectives of the WASH assessment.
- **Findings:** Overall picture of the refugee situation: origin, number, sites, surrounding community relations. Context: brief overview of the humanitarian context. Key findings (organized geographically per site and by WASH thematic area).

The following checklist is primarily for use to assess needs, identify resources and describe local conditions, and has been extracted from the Sphere Handbook – 2018 Edition – Appendix 1 Water supply, Sanitation and Hygiene Promotion- Initial needs – Assessment checklist - pages 139 – 143.

- [https://handbook.spherestandards.org/en/sphere/#ch006\\_001](https://handbook.spherestandards.org/en/sphere/#ch006_001)
- **General.**
- How many people are affected and where are they?  
Disaggregate the data by sex, age, disability and so on.
- What are people's likely movements?
- What are the security factors for the affected people and for potential relief responses?
- What are the current, prevalent or possible WASH-related diseases?
- Who are the key people to consult or contact?
- Who are the vulnerable people in the population and why?
- Is there equal access for all to existing facilities, including at public places, health centers and schools?
- What special security risks exist for women, girls, boys and men?
- At-risk groups?
- What water, sanitation and hygiene practices were the population accustomed to before the crisis?
- What are the formal and informal power structures (for example, community leaders, elders, women's groups)?
- How are decisions made in households and in the community?
- Is there access to local markets?
- What key WASH goods and services were accessible in the market before the crisis and are accessible during the crisis?
- Do people have access to cash and/or credit?

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- Are there seasonal variations to be aware of that may restrict access or increase demands on labor during harvesting time, for example?
- Who are the key authorities to liaise and collaborate with?
- Who are the local partners in the geographical area, such as civil society groups that have similar capacity in WASH and community engagement?

▪ **Hygiene promotion.**

- What water, sanitation and hygiene practices were people accustomed to before the crisis?
- What existing practices are harmful to health, who practices these and why?
- Who still practices positive hygiene behavior and what enables and motivates them to do this?
- What are the advantages and disadvantages of any proposed changes in practice?
- What are the existing formal and informal channels of communication and outreach (such as community health workers, traditional birth attendants, traditional healers, clubs, cooperatives, churches and mosques)?
- What access to the mass media is there in the area (for example, radio, television, video, newspapers)?
- What local media organizations and/or non-governmental organizations (NGOs) are there?
- Which segments of the population can and should be targeted (for example, mothers, children, community leaders, religious leaders)?
- What type of outreach system would work in this context (for example, community hygiene volunteers or workers or promoters, school health clubs, WASH committees) for both immediate and medium term mobilization?
- What are the learning needs of hygiene promotion staff and community outreach workers?
- What non-food items are available and what are the most urgently needed based on preferences and needs?
- Where do people access markets to buy their essential hygiene items?
- Has this access (cost, diversity, quality) changed since the crisis?
- How do households access their essential hygiene items?
- Who makes the decisions regarding which items to buy and prioritize?
- How effective are hygiene practices in healthcare settings (particularly important in epidemic situations)?
- What are the needs and preferences of women and girls for menstrual hygiene practices?
- What are the needs and preferences of people living with incontinence?

▪ **Water supply.**

- What is the current water supply source and who are the present users?
- How much water is available per person per day?
- What is the daily and weekly frequency of the water supply availability?
- Is the water available at the source sufficient for short term and longer term needs for all groups?
- Are water collection points close enough to where people live? Are they safe?
- Is the current water supply reliable? How long will it last?
- Do people have enough water containers of the appropriate size and type (collection and storage)?  
Is the water source contaminated or at risk of contamination (microbiological, chemical or radiological)?
- Is there a water treatment system in place?
- Is treatment necessary?
- Is treatment possible?
- What treatment is necessary?
- Is disinfection necessary?
- Does the community have problems with water palatability and acceptance associated with chlorine taste and smell?
- Are there alternative sources of water nearby?
- What traditional beliefs and practices relate to the collection, storage and use of water?
- Are there any obstacles to using the available water supply sources?
- Is it possible to move the population if water sources are inadequate?
- What are the alternatives if water sources are inadequate?
- Are there any traditional beliefs and practices related to hygiene (for example, during the Haiti cholera outbreak the disease was associated with voodoo culture)?
- Are any of these beliefs or practices either useful or harmful?
- What are the key hygiene issues related to water supply?

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- Do people buy water? If so where, at what cost and for what purposes?
- Has this access (the cost, quality, regularity of delivery) changed?
- Do people have the means to use water hygienically?
- Are water-points and laundry and bathing areas well drained?
- Are soil conditions suitable for on-site or off-site management of problem water from water-points and laundry and bathing areas?
- Has a soil percolation test been carried out?
- In the event of rural displacement, what is the usual source of water for livestock?
- Will there be any environmental effects due to possible water supply intervention, abstraction and use of water sources?
- What other users are currently using the water sources?
- Is there a risk of conflict if the sources are utilized for new populations?
- What opportunities are there to collaborate with the private and/or public sector in water provision?
- What bottlenecks and opportunities exist that could inform the response analysis and recommendations?
- What operation and maintenance duties are necessary?
- What capacity is there to fulfil them in the short and long term?
- Who shall be accountable for them?
- Is there an existing or potential finance mechanism or system that can recover the operation and maintenance costs?
- How does the host population access water and ensure that its water is safe at the point of use?

▪ **Excreta disposal.**

- Is the environment free of feces?
- If there is open defecation, is there a designated area?
- Are there any existing facilities? If so, are they used?
- Are they sufficient?
- Are they operating successfully?
- Can they be extended or adapted?
- Are the facilities safe and dignified: lighted, equipped with locks, privacy screens?
- Can people access the toilet facilities during the day and night? If not at night, what are the alternatives?
- What excreta management practices does the host population practice?
- Is the current defecation practice a threat to water supplies (surface or groundwater) or living areas and to the environment in general?
- Are there any social – cultural norms to consider in the design of the toilet?
- Are people familiar with the design, construction and use of toilets?
- What local materials are available for constructing toilets?
- Is there an existing acceptance of and practice for composting?
- From what age do children start to use the toilet?
- What happens to the feces of infants and young children?
- What is the slope of the terrain?
- What is the level of the groundwater table?
- Are soil conditions suitable for on-site excreta disposal?
- Do current excreta disposal arrangements encourage vectors?
- Are there materials or water available for anal cleansing?
- How do people normally dispose of these materials?
- Do people wash their hands after defecation and before food preparation and eating?
- Are soaps or other cleansing materials with water available next to the toilet or within the household?
- How do women and girls manage menstruation?
- Are there appropriate materials or facilities available for this?
- Are there any specific facilities or equipment available for making sanitation accessible for persons with disabilities, people living with HIV, people living with incontinence or people immobile in medical facilities?
- Have environmental considerations been assessed: for example, the extraction of raw materials such as sand and gravel for construction purposes, and the protection of the environment from fecal matter?
- Are there skilled workers in the community, such as masons or carpenters and unskilled laborers?
- Are there available pit emptiers or desludging trucks?
- Currently, is the collected fecal waste disposed of appropriately and safely?
- What is the appropriate strategy for management of excreta – inclusive of containment, emptying, treatment and disposal?

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▪ **Vector-borne diseases.**

- What are the vector-borne disease risks and how serious are they?
- What daily or seasonal patterns do local vectors follow in relation to reproduction, resting and feeding?
- Are there traditional beliefs and practices (for example, the belief that dirty water causes malaria) that relate to vectors and vector-borne disease?
- Are any of these beliefs or practices either useful or harmful?
- If vector-borne disease risks are high, do people at risk have access to individual protection?
- Is it possible to make changes to the local environment (especially by, for example, drainage, scrub clearance, excreta disposal, solid waste disposal) to inhibit vector breeding?
- Is it necessary to control vectors by chemical means?
- What programs, regulations and resources exist regarding the use of chemicals for vector control?
- What information and safety precautions need to be provided to households?

▪ **Solid waste management.**

- Is accumulated solid waste a problem?
- How do people dispose of their waste?
- What type and quantity of solid waste is produced?
- Can solid waste be disposed of on-site or does it need to be collected and disposed of off-site?
- What is the normal solid waste disposal practice for affected people (for example, compost and/or refuse pits, collection system, bins)?
- Are there medical facilities and activities producing waste?
- How is it disposed of?
- Who is responsible?
- Where are disposable sanitary materials disposed of (for example, children's nappies, menstruation hygiene materials and incontinence materials)?
- Is their disposal discreet and effective?
- What is the effect of the current solid waste disposal on the environment?
- What solid waste management capacity do the private and public sectors have?

The following ICRC video explains how to organize a needs assessment as part of the planning cycle of an humanitarian emergency intervention:

- <https://youtu.be/3C0FVTh-xBI>

Other relevant consulted source: UNHCR WASH Manual.

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_10](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_10)

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**5.- Using the one major Public Health issue that you selected in your answer to prompt 4, describe up to 3 possible interventions that you would implement according to the specific context, and explain why they would be appropriate.**

I suggest dividing the interventions to be done in three fields of actuation;

**1. Water supply , 2. Sanitation provision and 3.- Hygiene promotion.**

First, I would consider organizing Water trucking as immediate solution to cope with the urgent water needs.

For more information Oxfam technical note can be accessed from :

- <https://policy-practice.oxfam.org/resources/technical-guidelines-on-water-trucking-in-drought-emergencies-301794/>

In parallel, an intermediate solution has to be planned and implemented, considering borehole drilling to be able pump up ground water from the wells.

Whenever possible a solar pump kit will be installed which reduce operational cost specially fuel required to run the generator to assist the engine of the centrifugal water pump.

A portable pumping station can be set up to bring water from river or lakes or other surface water bodies nearby.

It is relevant to involve the beneficiaries in the design of the activities, so that community members will take the sense of ownership of the equipment and services installed.

Secondly, sanitation needs will require to construct VIP latrines, and waste disposal systems. Latrines will be designed and constructed respecting the needs of each group respecting gender, persons with disabilities, and any other relevant aspect to respect dignity of the users.

Finally, Hygiene Promotion campaigns including instructions of how to use the systems installed in the camp, making sure that the quality of water is preserved and safely stored at the point-of-use level. Hygiene kits, including soap, menstrual hygiene kits , blankets , sleeping mats are also provided.

Accessed resources for different fields of actuation can be consulted at UNHCR Wash Manual :

For Water Supply :

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_4](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_4)

For Excreta Management :

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_5](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_5)

For Solid Waste Management :

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_6](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_6)

For Disease Vector Control :

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_7](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_7)

For Hygiene Promotion :

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_8](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_8)

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Finally, I recommend the following ICRC video explains how to organize a WASH humanitarian emergency intervention :

- o <https://youtu.be/BnMX3tbNk4w>

As well as a press note from ICRC dated 24-12-2020 illustrating the intervention in the field.

- o <https://www.icrc.org/en/document/ethiopia-icrc-ensures-access-water-sanitation-services-500-idps-north-ethiopia>

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#### **6.- Provide some indicators that you would use to measure their effectiveness.**

**Note that we are aware you will likely not have all the information required to make the programmatic decisions, but you can make assumptions as long as you describe them.**

**SPHERE recommends the use of Key indicators on Water supply.**

- Average volume of water used for drinking and domestic hygiene per household.
  - Minimum of 15 litres per person per day.
  - Determine quantity based on context and phase of response.
- Maximum number of people using water-based facility.
  - 250 people per tap (based on a flow rate of 7.5 litres/minute).
  - 500 people per hand pump (based on a flow rate of 17 litres/minute).
  - 400 people per open hand well (based on a flow rate of 12.5 litres/minute).
  - 100 people per laundry facility.
  - 50 people per bathing facility.
- Distance from any household to the nearest water-point • <500 metres
- Queuing time at water sources • <30 minutes
- Percentage of communal water distribution points free of standing water
- Percentage of water systems/facilities that have functional and accountable management system in place.
- Percentage of water quality tests meeting minimum water quality standards.
  - <10 CFU/100ml at point of delivery (unchlorinated water)
  - $\geq 0.2\text{--}0.5\text{mg/l}$  FRC at point of delivery of delivery (chlorinated water)
  - Turbidity of less than 5 NTU

**SPHERE - Key indicators on Excreta Management.**

- There are no human feces present in the environment in which people live, learn and work
- All excreta containment facilities are sited appropriately and are an adequate distance from any surface or groundwater source.
- Ratio of shared toilets • Minimum 1 per 20 people.
- Distance between dwelling and shared toilet • Maximum 50 metres.
- Percentage of toilets that have internal locks and adequate lighting.
- Percentage of toilets reported as safe by women and girls.
- Percentage of women and girls satisfied with the menstrual hygiene management options at toilets they regularly use.
- All human excreta is disposed of in a manner safe to public health and the environment.
- Percentage of identified breeding sites where the vector's life cycle is disrupted.

**SPHERE - Key indicators on Waste Management.**

- There is no solid waste accumulating around designated neighborhood or communal public collection points
- Percentage of households with access to a designated neighborhood or communal solid waste collection point at an acceptable distance from their dwelling
- Percentage of households reporting appropriate and adequate waste storage at household level
- Percentage of schools and learning centers with appropriate and adequate waste storage
- Percentage of public markets with appropriate and adequate waste storage
- Percentage of solid waste pits or incinerators at schools, learning centers, public markets and other public institutions that are managed safely

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Some other links of interest for designing Wash Indicators can be found :

UNHCR Resources for WASH Monitoring and Evaluation can be accessed from

- [http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter\\_11](http://www.ben-harvey.org/UNHCR/WASH-Manual/Wiki/index.php/Chapter_11)

WEDC – Guide 1 – Selecting WASH indicators.

- <https://reliefweb.int/report/world/selecting-water-sanitation-and-hygiene-indicators>

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**Main consulted sources :**

- **ICRC** <https://www.icrc.org/>
- **OCHA** <https://www.unocha.org/>
- **RELIEFWEB** <https://reliefweb.int/>
- **SPHERE** <https://spherestandards.org/>
- **UNHCR** <https://www.unhcr.org/>
- **WEDC** <https://www.lboro.ac.uk/research/wedc/>