Introduction

This deepening will provide you with a look into the social side of our challenge to shine a light on social sustainability and thus complete the dimensions of sustainability. Here the stakeholders play a major role, it is all them in relation to our solution. Therefore, to gain an in depth understanding of our stakeholders, their context, and their engagement with the solution, by questions asking to portray a stakeholder analysis, as well as asking questions on social sustainability, quality of life, and engagement.

Stakeholder analysis.

- *Who are our stakeholders, and what is their current situation?*

Social sustainability.

- *What is social sustainability? How is social sustainability related to sustainability? What does social sustainability mean in our context (camp Moria)?*

Quality of Life.

Political Context.

Currently I am planning to write a text essay because with all the information I will gather it will never all fit on a poster. When answering all these questions in the deepening, we will know what their problems are, which of those have the most influence on them, how our solution can make their lives better, how we can make sure they have something to say about the product, how the government can help us implement the product and how we make sure people will use it (properly). This deepening will create social sustainability and make sure our product will be a success for the people.

To me, the best way to portray this deepening is as an essay, so the influence of a certain product can be, as much as possible, objectively discussed without too many ethical problems. Upon that, it will give the space to illustrate and discuss all the information in depth. Also, the skills I will acquire when doing this deepening can be portrayed best in an essay. Here I can show how I learned to analyse the situations and use this skill to predict the influence of our solution as well as creating a way to let our stakeholder engage with the product.

Intended Learning Outcomes

There are a lot of things I want to learn when creating this deepening. In relevance to the personal development plan as well as just a more general goal for myself I want to firstly figure out if this domain, the more social side, suits me. Besides that, I want to learn how I can combine both social and technological influences and, in this way, create an appropriate solution. To find this "perfect" solution a thorough understanding of the stakeholders is needed, something very much needed, but often forgotten. Therefore, I would also like to learn how to analyse stakeholders. Upon that, I want to learn about social sustainability, because this is something which you will not notice when it is there, and only when it is not there you become aware of it. We did not notice this until COVID-19 started, and because this is so relevant, I would like to learn more about it. Lastly, I am very interested in European politics and governing, and I think this might be interesting for my future, so I want to learn more about this. This all considered my Intended Learning Outcomes are the following:

1. Analyse the stakeholders and their context.
2. Analyse social sustainability, provide a framework for a definition and asses it with regards to our solution.
3. Analyse the political situation that led to the current state of Camp Moria

Relevance

The Ikigai covers four main questions that should be asked. These questions are the following:

- What do I love?
- What am I good at?
- What can I be paid for?
- What does the world need?

During my research on the meaning of an Ikigai and while deciding if the Ikigai is something I would like to follow or dive into more profound, I realised something. I was reading about the translation of Ikigai and how that can mean two things. Firstly, it can be something that explains why life is worth living. Secondly, it can be something that makes someone's life worth living. Eckhart Tolle describes this as being and doing. Being is an inside factor; it is a feeling from inside, for example, a happy feeling. Doing is the outside factor; it is something that gives purpose; it can be a family or a job, for example. It still is a challenging subject to figure out with the little life-experience I have. Being and doing are depending on each other to align, but it is also important that they never connect. It is crucial to keep the two separate. It should not be about comparing yourself in your doing to create a being. Being needs to give someone an example to go out and discover doing. If not, people tend to overthrow themselves with, for example, work and get the best at this to reach happiness and thus a being. This, to me, is a different concept, because nowadays both being and doing are so connected, it makes it hard for me to split them up. Tolle suggests that to find both, you first need to find small present things that are in your life right now, instead of striving for the stars right away. This is the concept I have the most difficulty with; I tend to focus too much on the future, on reaching my maximum potential, most of the times compared to others. Instead of focusing on the present time and looking at how I can build from the building blocks I have now. This leads me to that I feel like an Ikigai should mostly about the process, instead of the end goal. This why I believe my Ikigai is still unknown and can be unknown for long. There is also no problem with finding it to me, the finding of the Ikigai can lead to purpose, but it can also give building blocks to reach a new Ikigai later in life.

Before answering the questions regarding the Ikigai and why this specific deepening is important, I felt like I need to be able to fully understand the process of the Ikigai in order to fill it in and provide reasoning.

Firstly, what do I love? I love being able to discover, help, to learn new things and hear more stories every day. My doing in terms of things I love are nature, animals, and people. Secondly, what am I good at? I am good at listening, at working hard and at finding solutions. Thirdly, what can I be paid for? I can be paid for my research skills and my quick understanding and overview. Lastly, what does the world need? The world needs people that care about others, especially those who have nothing because, in times of COVID-19, most people and nations are busy saving themselves first and then start caring about others.

Why does it matter to me?

So, why does it give me purpose, or even why may it be an alignment of my being and doing for now?

Firstly, I want to figure out whether my passion might be laying within the field of social sciences and humanities, to figure this out, my deepening is the perfect opportunity. Also, caring about stakeholders gives purpose to me, because I feel like they are the ones left out in this whole story. Nations first care about their own inhabitants, but what is happening then to the people that officially are living nowhere? What is happening to those people put away in camps? Why is the life of those people so inhumane? I care about people, so I want to help them. I can do this, because of the things I am good at, especially in the field of stakeholders, I am good at finding out what their problems are. I can come up with a solution and propose this to the team. Besides that, I could get paid or valued in the team for my research skills and overview. This will contribute to the team in a way that I know what is going on and can easily connect everything to the stakeholders. It matters to me because this is a way I can help in showing the importance of the stakeholders. Lastly, the world needs people to care about others, and I feel like this is the perfect opportunity for me to do this.

This deepening is meaningful and important, considering the design challenge because the stakeholders are the ones that need to use the product in the end. If they will not use the product or not use it the intended way, our solution clearly did not work for the specific problem. A stakeholder analysis is very important; it will specify our stakeholders, their context, their capabilities, and the difficulties they face in times of COVID-19.

When diving into social sustainability it is firstly very important to obtain a proper understanding of the actual definition of social sustainability and the way we define this. Since there are no set definitions in literature for social sustainability, defining this will be covered in the deepening. Upon that the social sustainability within the camp will be investigated to get a more complete stakeholder analysis. Also, Quality of Life will something that will be researched within this deepening, since this is one of the most important factors of social sustainability that is impacted in times of COVID-19. So, in this deepening there will be research on how COVID-19 influenced the capabilities and, in that way, influenced that quality of life. Next to that, queueing is a big part of the lives of our stakeholders, so it is important to understand how this influences their quality of life. When this is known, it can partly provide the answer on how our solution influences the quality of life. Together with the stakeholder analysis, these answers will determine if our product is appropriate and socially sustainable. Lastly this deepening will investigate the engagement, to make sure our stakeholders will engage, and engage in a way that they are meant to, with our solution. There will be research in this deepening on how engagement can be stimulated and assured, for example through policy making.

This is created from my ikigai; however, it will not only contribute to the project, but it will also help me attain my intended learning outcomes, both through the project as directly from through my deepening. When attaining this intended learning outcomes, as well as when writing this deepening, it will affect my own and set semester goals.

Evidence and Results

Parts of my deepening are already deeply integrated into specific parts of this and earlier milestones and deliverables. Some of those parts where afterwards iterated. Some of those parts are only for example 80% of the parts that is in my deepening and other parts are fully there. Also, the context study I did on stakeholders and the capability approach are the framework for this deepening, thus needs to be understood that those things are deeply connected and interlinked. Parts here are based on the knowledge provided there and the other way around.
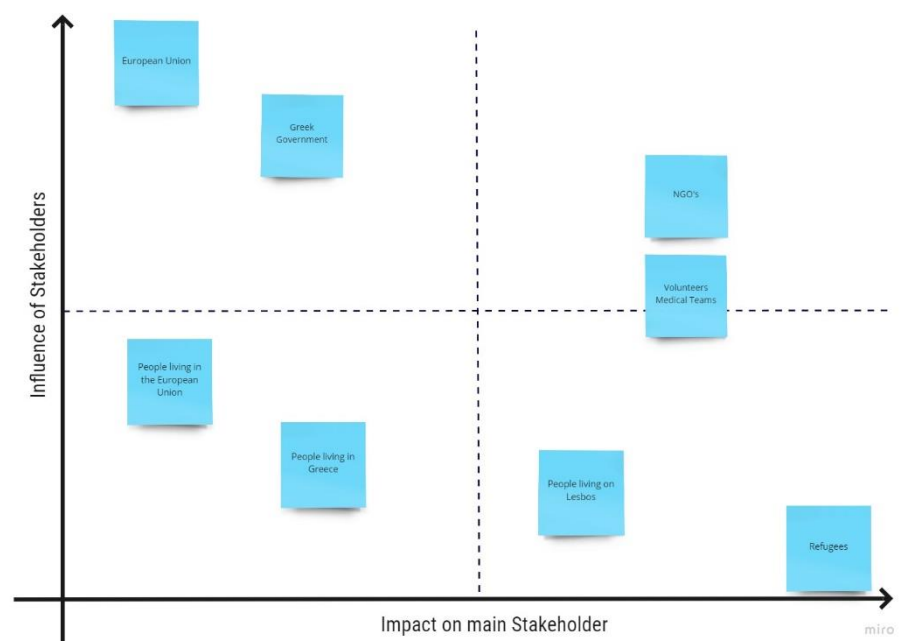
Stakeholder analysis.
Who are our stakeholders, and what is their current situation?
Our main stakeholders are defined as the refugees in Camp Moria, Greece. To get a thorough understanding on them, their living situation and the people that influence their living conditions the stakeholder analysis will take place in different phases. First a stakeholder map is analysed to get an overview of the influence and impact of the different stakeholders. After this an ecosystem assessment and a motivational analysis will be used to gain a better understanding of the influence and impact. Lastly an empathy map will be used to analyse the situation of our main stakeholders, the refugees.

Stakeholder map
The refugees in Camp Moria are the main stakeholders, however there are a lot of other parties involved that have a high or a low influence on the situation in the camp as well as parties that are interested or not in impacting the camp to change things positively. Therefore, the stakeholder map is used to get a visual representation of this.

The main stakeholders, the refugees can be found all the way down in the far-right corner. This clearly represents the situation the refugees are in, they have no power, and thus influence. Since their living situations are inhumane, especially in times of COVID-19. They are the ones that want to see things change the most. More information about the main stakeholders can be found in chapter …. Of the context study. Besides that, their context and urgency are clearly portrayed in chapter.

Other people that are severely influenced by the situation going on in Camp Moria are the people living on Lesbos. Due to all the refugees that came to the camp, the tourist

halved in 2016, and barely any cruise ships come to the port of Lesbos (Higginbottom, 2020). This has an enormous impact on the local economy. Upon that the tension between the locals and refugees is big (Cossé, 2020). This means they want to see an impact. However, Moria being such a small population, with only 1000 inhabitants (Zander, 2020), they do not have any resources, and thus barely any influence, to change the situation.

The people in Greece are also impacted by the refugees in Camp Moria. Over the last months a lot of people have been replaced to the mainland following the fire that entirely destroyed Moria (Infomigrants, 2020b). Gonzalez-Barrera and Connor (2018) found in their research that 74% of the Greek population feels like refugees are negatively impacting their country, because they steal away the jobs as well as benefits. Therefore, they want to see a solution with a high impact. Since the Greek population is with 10.7 million people (Data Commons, 2020), they do have a slightly bigger influence on what is happening with the refugees, since they can for example vote for different parties that have different plans with the refugee camps.

Also, the people living in the European Union have a saying on what is happening with the refugees stuck in the camps. According to Poushter (2016) 50% of the respondents in 10 EU countries stated that they are also afraid that refugees will take their jobs as well as their things like social benefits. Upon that 59% is worried that the replacement of refugees to European Union countries will lead to more terrorism. Yet, there have also been large groups protesting and signing petitions to take refugees in after the fire that destroyed Moria (Infomigrants, 2020a). The European Public wants to help people if (they believe) it will not lead to negative consequences for them. So, they want to make sure a certain impact takes place. The entire population of the European Union, with 445 million inhabitants (Eurostat, 2020), do have a way bigger influence than the Greek population.

The party with the most influence is the European Union. They have both the methods and the ability to say what happens with the refugees. However, they are usually very influenced by their own political agendas. They want to keep most of the people and thus, member states happy and that is by not letting the refugees further in Europe. This means they are not likely to make sure Camp Moria will be impacted positively.

Upon that, the Greek Government is playing a major role is in this refugee crisis. They are the ones that receive and divide the money; thus, they have a lot of influence. Besides that they can make laws, just like they did last summer, where the new government stopped the asylum process for one month, then started it again but changed it fully around, to make it even more inhumane (Oxfam International, 2020b). According to Oxfam International (2020b) this is done to discourage refugees to come to Greece, also now the borders with Turkey are open again. More about the EU-Turkey deal can be found later in this deepening. Therefore, they are more interested to see things change than the European Union if it does not negatively impact Greece.

Next, the NGO's operating in Camp Moria would like to see things change, for the sake of the refugees as well as their volunteers and medical teams (Human Rights Watch, 2020b). They do have an influence since they have the resources to arrange more volunteers and medical teams. However, they might be restricted by regulations from both the European Union and the Greek Government.

Lastly the volunteers and medical teams want to see things change. With the already limited number of medical professionals, according to Human Rights Watch (2020b) and the shortages in PPE (International Rescue Committee, 2020a). They can barely help the refugees. These shortages in combination with the extreme queueing bring the volunteers and medical teams in danger every day, which might lead of them not being able to do their work anymore. Therefore, they want to see things change. However, they do not have the influence to actually change things.

Stakeholder ecosystem assessment
In the prior part all the stakeholders as well as our main stakeholder have been defined. Already in some of the parts it was made clear how different stakeholders are influencing each other. To get a clear overview of the stakeholders and how they are influencing the main stakeholder and each other, a stakeholder ecosystem assessment will be used. The lines will predict for a positive, negative, or neutral influence and how big this influence actually is. This information can guide in the process of decision making.

In the stakeholder mapping the following list of stakeholders was established:

1. European Union

2. NGO's
3. European population
4. Greek Government
5. Greek population
6. Lesbos population
7. Volunteers
8. Medical teams
9. Refugees

In the case of this sociogram/stakeholder ecosystem/ people & connections map the refugees are the target audience. That is why they are placed in the middle. Around there the other stakeholders are placed in their different contexts; in Camp Moria, local, national, and international.

The European Union is with their decisions directly influencing the life of the refugees (Deutsche Welle, 2020). Due to their resources their influence is also relatively big. The European Union is influenced by the European population because they protest, sign petitions and vote for political parties, as can be seen in Germany after the fire in Moria. (Infomigrants, 2020a). Since the Greek population, and thus Lesbos population, are part of the European population they slightly influence the European population. The European Union and the European, Greek and Lesbos population are influenced by NGO's. The NGO's are the ones calling for action and raising awareness, and in this way, they can influence the agenda of the European Union as well as the opinion of their population. Like they for example did with a petition to improve the treatment of refugees, that is presented to the European Union and signed by over 165 000 people. (Infomigrants, 2020a)

The NGO's are also influencing the refugees themselves directly by for example investing in an education centre, like the Dutch Postcode Lottery did (Theirworld, 2020). Besides that, they also influence the refugees through volunteers and medical teams, by for example recruiting more volunteers and medical teams (Stichting Bootvluchteling, n.d.). These volunteers and medical teams do have an influence on the NGO's as well because they see what is needed from the ground.

The next party directly influencing the refugees is the Greek Government, since they are the ones dividing the money over camps and making asylum regulations (Oxfam, 2020). Besides that, the Greek Government also influences the opinion of the European Union, not as strong as the European Union does the other way around, since it is 26 versus one, but the Greek Government still has a vote. Yet, the Greek Government is not able to speak too loudly, since they European Union is investing million in them protecting the European Border (Souli, 2020).

The Greek Government is also influenced by their own population. The Greek inhabitants are the ones voting for parties. Besides that, the population of Lesbos is part of the Greek population and therefore influencing the opinion of the Greek Government indirectly. Yet, the Greek Government cannot speak to loud because the European Union helped Greece during the economic crisis. And therefore, Greece has an unimaginably big dept and here the European Union can profit from, just as Rachman (2016) from the Financial Times predicted.

Besides that, the population of Lesbos is also influencing the refugees directly, since they for example create their own regulations and police forces when they feel like the governmental bodies are not doing their job properly. They did this for example after the fire to prevent the refugees from coming into the towns of Moria and Mytilene (BBC, 2020).

Stakeholder motivation

In the prior part all the stakeholders as well as our main stakeholder have been defined. In the Stakeholder mapping both the impact and influence of the stakeholders was made clear. Now it is time to dive deeper into the impact of each stakeholder since they all are motivated for the situation to change or not change. Therefore, a stakeholder motivation analysis will be conducted in this section to get a better overview of all the motives.

Underneath there are different solutions stated. These are all solutions to fight the transmission of COVID-19 and includes are current solution. For every solution, the stakeholder then will be split up into four different categories. These are anti, neutral, facilitate and active involvement. These categories will explain the different reactions towards a solution. After this, the reaction will be shortly explained. It is important to understand that an organisation, group of people or whatsoever can be against a solution, but also be the ones that must facilitate it. This can be for example the case when a hierarchically higher party obliges them to do so. Therefore, it was important to first understand the hierarchy and the different connections.

Stakeholder Motivation	Anti	Neutral	(Should) Facilitate	Active Involvement
Keep the refugees in Camp Moria (Lockdown)	• NGO's • European Population • Greek Population • Lesbos Population • Volunteers • Medical Team • Refugees	• European Union • Greek Government	• European Union • Greek Government • NGO's	• Volunteers • Medical Teams • Refugees
Relocate the refugees in Greece	• Greek Population • Greek Government	• European Union • NGO's • European Population • Lesbos Population • Volunteers • Medical Teams • Refugees	• European Union • Greek Government	• Refugees
Relocate the refugees in Europa	• European Union • Greek Government	• NGO's • European Population • Greek Population • Lesbos Population • Volunteers • Medical Teams • Refugees	• European Union • Greek Government	• Refugees
Our Solution: more water + less queuing		Everyone if: • Less money • Less time consuming	• European Union • Greek Government • NGO's	• Volunteers • Refugees

Keep the refugees in Moria

This is part of the strategy the governmental bodies are currently following. For example, the Greek Government insisted on a lockdown for the camp, just to keep COVID-19 within there (Medicines Sans Fronteries, 2020). The NGO's, volunteers and medical teams are against this (Medicines Sans Frontieres, 2020) since it will negatively impact the mental health of the refugees. The European and Greek population do not seem to agree with this solution (Infomigrants, 2020). However, the European Union gave Greece 130 million euros to build another closed camp on Samos. To make a lockdown work in Moria, the European Union, the Greek Government and NGO's should facilitate the camp with more police assistance to keep the refugees inside (Deutsche Welle, 2020). This solution also needs even more active involvement from the volunteers and medical teams to keep life in the camp going. However, in other Greek camps the government is making it very difficult for the NGO's and thus the volunteers and medical teams to work (Deutsche Welle, 2020). This trend might follow in Moria as well.

Relocate in Greece

This is something the Greek population and thus the Greek government will be against because they are afraid it negatively impacts them by the refugees taking away their jobs and social benefits. Besides that, they see a risk of terroristic attacks increasing (Gonzalez-Barrera and Connor, 2018). Also normally costs of relocation covered by relocation country (OECD,2017). This would mean that most of the costs in this case would be covered by Greece, which would be very expensive. The European Union will be neutral if they refugees do not come to the rest of Europe and if will not have to cover the costs. The European population will be neutral about this decision because it does not negatively impact them. Also, the NGO's, volunteers and medical teams are neutral towards this solution, if the situation the refugees are in now gets better and they can help more people. Also, the locals on Lesbos will be neutral, since there will be less refugees on Lesbos, however this will probably not be enough to get the economy back to where it was. The ones that should facilitate this are the European Union and the Greek Government, however as seen before they rather over refugee's money to go back than invest that in the asylum process (BBC, 2020)

Relocate in Europe

This is something the European population says they are fine with, according to their protests (Rankin, 2020). However, the European Union seems to be against this since they have not undertaken any action according Medicines Sans Frontieres (2020). Next to the European population, also the Greek population tried to raise awareness for the situation and asked for refugees to be relocated (Infomigrants, 2020). Just as the European Union the Greek Government is against this idea. During the beginning of this year refugees where even offered to get money to go back home (BBC, 2020). Also, with their 2016 deal with Turkey they agreed on making sure refugees could not get further into Europe (Amnesty International, 2020). More about this EU-Turkey deal can be found later in this deepening. Because Turkey was hosting around 3.6 million Syrian refugees, according to Amnesty International, the Syrian population in camp Moria was relatively small. However, Turkey is now putting pressure on the European Union by not playing border police anymore. Therefore, a lot of Syrian refugees arrived over the summer and more can be expected. Due to the new refugees coming in, the fire that left a lot of refugees homeless and the fact that the inhumane living situations came to the public eye, which then led to protests as mentioned before, can no longer leave the European Union ignorant. However, with member states not happy to take a lot of refugees, it is easier for the European Union to leave them in Greece or even better in Moria. So, they do not really want to see things change. Neutral in this decision are the NGO's, volunteers, and medical teams, they just want to get a better situation for the refugees as well as a safer working situation for themselves. If the refugees will be relocated mostly, this will make the locals happy and that might decrease the risk of volunteers and medical teams getting harmed by locals (Speed, 2020). The ones facilitating this should be the European Union and the Greek Government.
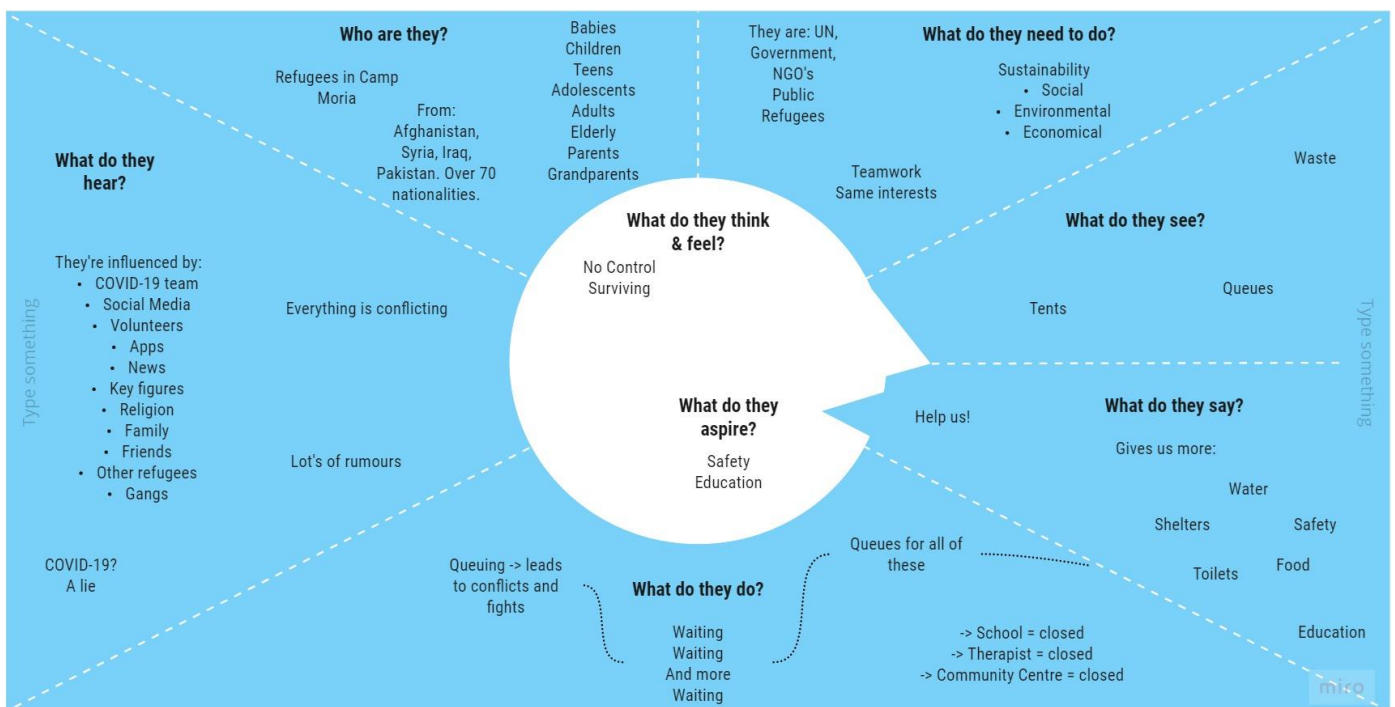
Our solution: more water/less queueing

All parties will be neutral about this solution if it will not cost more money and be more time consuming. That is why our solution must be cheaper in long term situations to increase the governmental motivation to change their way of working around and in that way get governmental funding. Also, our new solution should not be more time consuming for volunteers, so that they can spend more time on helping in other ways. What makes this solution hard is the facilitating phase, since a lot of players are involved. The European Union, together with the Greek Government and the NGO's need to find money and resources to make it happen. However, once it is installed there is barely any active involvement needed in using the product.

Empathy map

To get the most in depth understanding of our main stakeholders possible, there will be made use of an empathy map. The empathy map is a way of conducting a stakeholder analysis by describing the situation of stakeholders. By capturing the user persona, it can help bring across knowledge to other team members, who might be less involved in the research regarding stakeholders. Upon that it creates an easy understanding for non-team members. Lastly it can provide guidance in the decision-making process, since it easier to distinguish what is important and what not. It specifically helped us as a team to discover the things we were still unaware of and create an understanding of how we can make a meaningful impact.

Within the empathy map, several questions are answered, these include:

Who are they?

Refugees in Camp Moria

From: Afghanistan, Syria, Iraq, Pakistan. Over 70 nationalities.

Babies
Children
Teens
Adolescents
Adults
Elderly
Parents
Grandparents

They are: UN, Government, NGO's Public Refugees

What do they need to do?

Sustainability
• Social
• Environmental
• Economical

Waste

What do they hear?

They're influenced by:
• COVID-19 team
• Social Media
• Volunteers
• Apps
• News
• Key figures
• Religion
• Family
• Friends
• Other refugees
• Gangs

Everything is conflicting

Lot's of rumours

COVID-19?
A lie

Teamwork
Same interests

What do they think & feel?

No Control
Surviving

What do they aspire?

Safety
Education

Help us!

What do they see?

Tents

Queues

What do they say?

Gives us more:

Water

Shelters

Safety

Toilets

Food

Education

Queuing -> leads to conflicts and fights

What do they do?

Waiting
Waiting
And more
Waiting

Queues for all of these

-> School = closed
-> Therapist = closed
-> Community Centre = closed

Type something

Type something

miro

18

- Who are they?

- What do they need to do?

- What do they think and feel?

- What do they do?

- What do they say?

- What do they hear?

- What do they see?

- Who are they?

Who are they?

This question is important to illustrate the background of the stakeholders. In our case their ethnicity, age groups and gender. Here we figured that our stakeholder group, the refugees in Greek camps, is diverse (Fallon & Beaumont, 2020). More information on the diversity of our main stakeholders can be found in the context study under chapter …. This means that our solution should not in any way exclude the most represented age groups.

What do they need to do?

The second question aims to address what the stakeholders themselves can do. We decided to incorporate some important other groups as well, since they have a major influence on the freedom of our main stakeholders. All these groups can be found above in the stakeholder mapping and sociogram. We also saw that these groups of people, including us, can together change something that will benefit everyone. And maybe in this way reach sustainability. For this, several things are needed, such as money, other resources, and proper regulations. Regulations might influence the freedom of our stakeholders, which might impact the appropriateness of our design.

What do they think and feel?

This question is important to understand the motivation of our stakeholders. It is very relevant to have a deeper understanding of one's motivations since our stakeholders must have a motivation to use the final product. If they are not motivated to use a product or service, they will never adopt it into their lifestyle. Refugees mostly seek

freedom basic needs (Emmanouilidou, 2020) and if possible, aspire education (Theirworld, 2020). The basic needs come in various forms and contain both physiological and safety needs, from a shelter above their heads, to no conflicts and enough water and nutrition, all things that do not always apply to a life in a Greek refugee camp. This pattern can be seen as well in Maslow's hierarchy of needs. Here the most important needs are physiological needs, like water, food, and sleep. Next, safety and a stable environment are needed. After this, psychological needs need to be met. And lastly self-fulfilment, for example through education is important (Maslow, 1954).

What do they do?

This question will guide us through the daily life of our stakeholders. The answer illustrates the situation our stakeholders have to go through every day. This was very important for our decision making when designing a solution, since we became aware that queuing (Human Right, 2020a) is the most important daily activity. In the new Camp Moria, there live around 7300 refugees (Refugee Support Aegean, 2020b). Around 1300 are expected to be replaced the coming time (Refugee Support Aegean, 2020a). This means that on a daily basis 6000 refugees need water. According to Refugee Support Aegean (2020b) taps are installed for water without drinking purposes. At this moment there are around 880 family tents, where one person gets a card to get food and drinking water for the whole tent. Upon that, up to an additional 2000 refugees will queue themselves for water and food. Since water is distributed at 3 different places, this leads to queues of around 900 refugees (Refugee Support Aegean, 2020b). In times of COVID-19, this is a controversial thing to do. This realisation led us to the conclusion that we wanted to design something that can reduce the queuing and thus the spread of COVID-19. Also, in times of COVID-19 education centres, also used for many other activities have been closed, or are just open for a very small amount of people (Theirworld, 2020). This leaves no other activity than waiting.

What do they say?

The fifth question also provides a deeper understanding of what the stakeholders need from their point of view, instead of from a more general perspective. It is important to consider both, since the problems of the stakeholders might be caused by situations, they are unaware of. This can also happen the other way around. We identified the need

for safety, water, food, sanitary and education (Human Right Watch, 2020a). These needs are mentioned by both refugees and external parties like NGO's. As stated before, refugees also really want freedom, however this is something noted less by external parties. Interesting is that they queue for nearly all of these needs. This is why we made the decision to combine the reduction of queuing and the need for water. Hence, we can come up with something that is important to the stakeholders themselves, while also having an influence on the bigger picture.

What do they hear?

The sixth question is there to help us understand stage how to implement a solution in later stages. We need to get an understanding of where the information comes from and how the refugees are influenced. According to Refugees International (2020) the very restricted access to reliable sources makes it hard for volunteers to help. Misinformation, lack of communication, language and cultural barriers and distrust in governmental bodies make rumours easily spread. Also, the information is coming from many different people.

What do they see?

This question is important to understand the viewpoint of refugees and how they could see a change in their world when our design is implemented. Because if they do not perceive a change in the world by using a product, they will be less motivated to adopt it. In order to give them a product that actually makes a difference, it is important to understand the world of a refugee as well as their perspective at this moment, while also having an idea of how their world would change if a certain product is implemented. Found is that they usually just see queues everywhere, with fights between ethnic groups breaking out regularly (Donadio, 2019). Besides that, they camp has been dealing with uncontrollable amounts of rubbish over the past years (Stubley, 2018). This led to waste laying around everywhere in and around the tents. Since there is nothing known about a waste collection system in the new camp, history will likely repeat itself.

This stakeholder map provides us with a clear situation on what there can be done to better the situation of the refugees in times of COVID-19. Due to the power of both the

European Union and the Greek Government the refugees cannot go anywhere. Therefore, a solution needs to be found to lower the transmission of COVID-19 within the camp, so the refugees can live a little bit safer. This will also create a better working space for the volunteers and medical teams and give the local population a bit more rest.

Social Sustainability

How is social sustainability related to sustainability?

Social Sustainability is one of the three dimensions of the sustainability diagram we used to guide or design process. This sustainability diagram focusses on the development of the world, a country, a group of people or one person. There are different ways of displaying these three dimensions, that exists of social, economic, and environmental sustainability. In this project we chose to work with the overlapping circles model, as can be seen in figure 5, since this model represents that there should be a balance in sustainability and all the dimensions should be integrated in order to reach a sustainable development (IUCN, 2006).

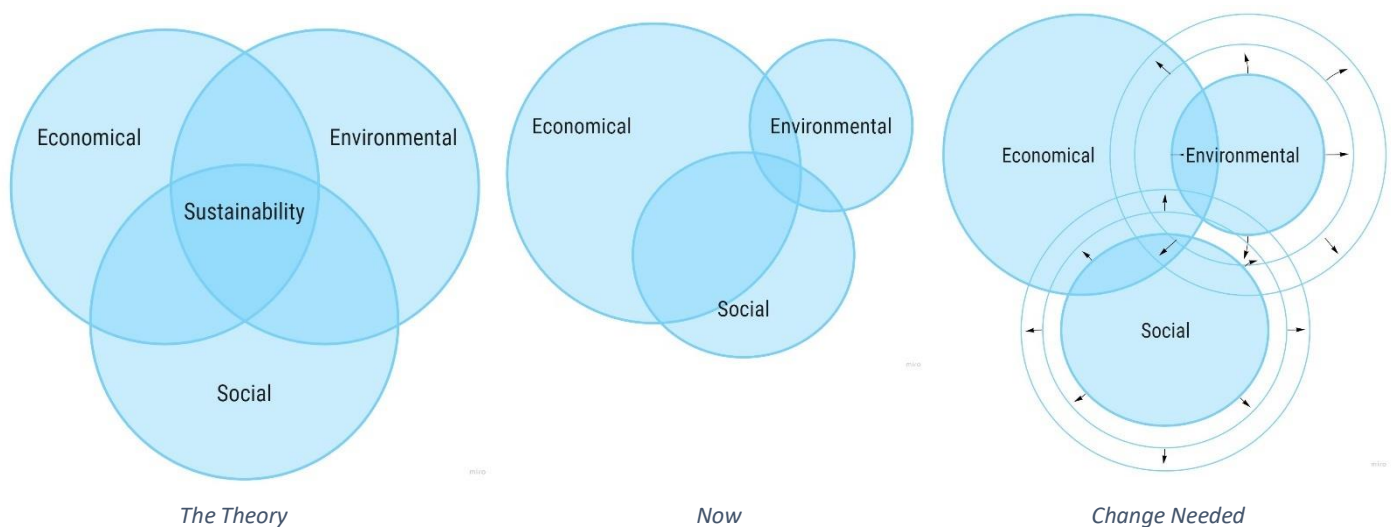*The Theory*   *Now*   *Change Needed*

Figure 5. The three pillars of dimensions of sustainable development, from left to right, the theory, reality, and the change needed to better balance the model.

Figure 5 does not only show what sustainable development should look like; it also shows where sustainable development is lacking (IUCN, 2006). In the case of social sustainability there can be seen that this is in practice the same, but in theory behind.

What is social sustainability, and what does it mean in our context (camp Moria)? Social sustainability is a fairly undefined theory within literature. This is not only because social sustainability is not the main priority, as can be seen in figure 5; it is also the case because social sustainability is something that is very context specific. Therefore, in this context of the refugees in Moria, the social sustainability model developed by the Western Australian Council of Social Service (WACOSS), will be used.

WACOSS developed the model to address the housing issues in a very low-income communities, as well as a way to develop guidelines for a socially sustainable community (McKenzie, 2004). This is one of the guidelines that comes closest to the context of the refugees in Moria since both deal with the low-income situation. Upon that, Maslow's Pyramid suggests that the most basic needs, so the physiological needs, include both housing and water (Aruma & Enwuvesi Hanachor, 2017). Therefore, it can be suggested that they are issues of the same kind, and that thus the guidelines are applicable to both situations.

The Social Sustainability Model exists of four parts: a definitions, principles, characteristics, and statements (McKenzie, 2004). The definition and principles are set as a broad guideline, applicable to many different communities, especially ones that relate very closely. However, the characteristics and statements are more context specific and set up by the own community (McKenzie, 2004). Therefore, these will not be included. A suggestion for further research would be the define those characteristics and statements for the Camp Moria as well.

Firstly, it is important to get an understanding of the definition of Social Sustainability, this is given as following:

> *"Social sustainability occurs when the formal and informal processes, systems, structures, and relationships actively support the capacity of current and future generations to create healthy and liveable communities. Socially sustainable communities are equitable, diverse, connected, and democratic and provide a good quality of life."* *(McKenzie, 2004, p. 18)*

Since the definition is not something a community can just achieve, there are principles based of the definition, that describe when different parts of social sustainability are reached. However, reaching these principles will not be a guarantee of social sustainability, since then also the characteristics and statements should be reached (McKenzie, 2004). This is impossible in the current timeframe; however, it does give a proper insight in the changes of social sustainability occurring.

The following principles are found by the WACOSS:

> *"1. Equity: the community provides equitable opportunities and outcomes for all its members, particularly the poorest and most vulnerable. While equity is listed as a separate principle, it is such a fundamental component that it cannot really be separated from the other principles. Equity is a filter through which all other principles are viewed.*
>
> *2. Diversity: the community promotes and encourages diversity.*
>
> *3. Interconnectedness: the community provides processes, systems and structures that promote connectedness within and outside the community at the formal, informal, and institutional level.*

4. Quality of life: the community ensures that basic needs are met and fosters a good quality of life for all members at the individual, group, and community level.

5. Democracy and governance: the community provides democratic processes and open and accountable governance structures." *(McKenzie, 2004, p. 18&19)*

As a team, we can only change a small thing. We are not capable of positively influencing all of these principles. However, we are able to make a small influence in one of the principles, and with that, to increase the Social Sustainability slightly. With our product, we will be able to influence to quality of life. Since with better accessible drinking water, basic needs are met, and therefore the quality of life is increased. Therefore, we now dive deeper into Quality of Life, to see how we can me a difference here.

Quality of Life.

The World Health Organization defines Quality of Life as the perception of individuals of their place in life in the context of the value system and culture they live in and in relation to their concerns, standards, expectations, and goals (international Encyclopaedia of Public Health, 2008). Generally, Quality of Life is used for a lot of practices, such as measuring Social Sustainability, as explained above, as well as for measuring the general wellbeing of a nation (Eurostat, 2020)

However, just as with Social Sustainability there are many ways to measure Quality of Life. Some countries use for example the Gross Domestic Product as measurement for QoL, but this way of measuring has great shortcomings (Tabani Mpofu, 2013). It is any easy technique, that gives a clear outcome in terms of a number, which can be easily compared, nonetheless it does not consider the perception of individuals. So, can measuring in this way can even say something about Quality of Life?

According to Alkire (2008) the Capability Approach is valid way to measure Quality of Life. Because we have already worked with Nussbaum's list of 10 capabilities, I will further assess these 10 capabilities in this deepening. I will firstly assess the quality of life in times of COVID-19. After that I will assess the quality of life with the theoretical benefits of our solution.

What is the current quality of life? How is this influenced by COVID-19? And how can our solution influence the quality of life?

Nussbaum's 10 capabilities are fully stated in appendix A. I will go through all of the capabilities, and then argue why it makes most sense to design something that reduces the chances of getting COVID-19, by reducing queuing.

Life

The first capability is about everyone having the right to live a life and a life of a normal length. Within Camp Moria although based in Greece, this capability cannot be secured, due to the lack of proper healthcare (Jervelund et al., 2019). Refugees are for example only allowed to see a doctor if they have proof of having a problem (Refugee Support Aegean, 2020b). For the people that got COVID-19, the situation is even worse, once they get placed in quarantine, there is no doctor to check up on them (Refugee Support Aegean, 2020b), this has the possibility to lead to many deaths (Dimitropoulos, 2020). Lastly, the refugees only got five masks a person when they arrived (Refugee Support Aegean, 2020b), this is not sufficient to protect them from catching COVID-19 and therefore can be a serious danger to their life.

The Solar Still will reduce queuing and therefore the risk of getting COVID-19. This can give the opportunity to reduce the number of fatalities.

Bodily Health

This capability is there to protect the ability to have a good and reproductive health, being properly nourished and to have a proper shelter. According to Jervelund et al. (2019) it is impossible to meet all the medical needs of the refugees normally in Camp Moria. Upon that, there is a lack of proper shelters (MacGregor, 2020). They refugees and NGO's that are still allowed to enter the camp report that there is no insulation and therefore the tents are very cold, and the humidity is high (Refugee Support Aegean, 2020b). Besides that, there are barely showers, any there is almost no hot water (Refugee Support Aegean, 2020b). This can be dangerous for the health of refugees. Additionally, there are a lot of people without matrasses and blankets, which can have

severe consequences for one's health (Refugee Support Aegean, 2020b). Food is only available through queuing or for the ones with a lot of money (MacGregor, 2020). Therefore, this capability could not be secured. During times of COVID-19, as stated before, people are not treated, this can lead to serious health related issues (Refugee Support Aegean, 2020b).

The Solar Still will reduce queuing and thus lower the COVID-19 cases. This will have a positive impact on the pressure on the medical teams, who will be able to treat more non-COVID related cases.

Bodily Integrity

This capability should assure that everyone can move from place to place, is safe from assault and violence. This capability is severely harmed in Camp Moria. In the first place the refugees cannot freely move. The only choice they have once arrived in Camp Moria is going back to their home country, where it is often not safe. Once in Camp Moria refugees have to wait until there are relocated to another camp, part of Greece or country (Rudzik, 2020). Secondly, assault and violence are very common within the camp (Chapman, 2020). Women can for example not move freely from place to place without a big risk of facing sexual assault (Chapman, 2020). Due to the lack of lights, showering can be very unsafe for women in the new camp (Refugee Support, Aegean, 2020). Also, fights in queues are very common (Nye, 2018). In times of COVID-19, this capability is not harmed more than normal. However, the state of this capability, so not being able to move, can have an influence on the capability of Life and Bodily Health, since less overcrowded places would give a smaller change of getting sick.

The Solar Still is not influencing this capability directly. However, more drinking water and less queuing could lead to less violence.

Senses, Imagination and Thought

The scope of this capability is relatively big. It includes that the refugees should be able to sense, imagine, think, and reason in a normal way and express this and that this should not be limited by proper education. Upon that freedom of expression should be guaranteed. Refugees in Camp Moria are not able to express themselves, due to lack of resources (Libenzi, 2020). Also, refugees are limited by education. Most of the children in camps on the islands, such as Moria, receive informal education, since their this no formal education available (The Guardian, 2020). This education is not up to the normal standards and varies in quality (Humans Right Watch, 2018). Upon that, due to COVID-19 and the new camp, there are only a few very small education centres operated by NGO's (Refugee Support Aegean, 2020). However, refugees themselves are trying to build makeshift education in their tents (Refugee Support Aegean, 2020). Additionally, COVID-19 resulted in refugees staying within the camp, not being able to do anything outside the camp apart from going to the doctor or buying food, a luxury most of the refugees do not have money for (Infomigrants, 2020a).

The Solar Still will help decreasing the COVID-19 numbers by making refugees queue less often. This can hopefully result in education centres opening again. If this happens, this capability still is not met, however it will be a step in the right direction.

Emotions

The capability of emotions pledges for the refugees being able to have and express emotions and for emotional development. Most of the refugees deal with severe mental problems after fleeing their home countries (Protogiros, 2020). Camp Moria provides mental health care, however, to learn how to deal with the intense emotions that the refugees experience every day, a safe and stable environment is needed (Montague, 2019). Also, there are no were enough therapists available within the camp (Protogiros, 2020). An environment opposite from the situation in Moria. In times of COVID-19, the sessions with therapists had to go over the phone, often without video and connection that fails (Protogiros, 2020). This severely impacts the emotional development of the refugees. Queuing often leads to emotions building op high and traumas coming back, due to the militarised environment (Nutting, 2019).

Less queuing due to the introduction of the Solar Still in Camp Moria can therefore contribute to a more stable environment and a better place for emotional development. However, with queues for all other resources in the camp, this will not make a significant difference. In order to reach this, all forms of queuing should be avoided. The Solar Still can reduce the number of COVID-19 cases, enabling the therapists to come to the camp and provide more adequate mental health care.

Practical Reason

This capability should give a refugee the ability to understand good and wrong and reflect on their life, for example by observing their religion. In this case we should acknowledge that refugees that arrive in Camp Moria most of the times went through a lot before they reached Camp Moria (Tondo, 2018). This can influence their understanding of good and wrong. However, Camp Moria should then give them the opportunity to explore the boundaries and give time for reflection, which is can be hard under the inhumane living conditions (Fallon, 2020) and there are not enough therapists available to guide them through this process (Protogiros, 2020). COVID-19 and the Solar Still do not significantly impact this capability.

Affiliation

This capability is there to provide two different things. One of them is having a social basis of self-respect and without humiliation, where everyone is worth the same. The other one is the ability to live with and toward others and to care for them, have social contact, and the ability to understand each other. On a normal day there is are a lot of fights between different ethnicities (Episkopou, 2019), since there is barely acceptance of other than own ethnicities. Upon that, vulnerable groups are severely in danger according to Refugee Support Aegean (2020b), since for example single women are often not able to do things by themselves. In times of COVID-19 this capability is not more harmed than before. The Solar Still might lead to less fights, however that does not mean that different ethnicities change their opinion about the others. Therefore, the Solar Still will not be influencing this capability.

Other Species

This capability should make sure that all the refugees can live with concern for animals, plants and nature and can live in relation to them. This capability is on a daily basis extremely harmed in Camp Moria. Due to the system of water distribution, there is a lot of plastic waste. Since the refugees need water to survive, they do not have the choice to show their concern for nature, because there is no other way to get access to water. With the current population it means that around 12 000 plastic bottles a day are handed out (International Rescue Committee, 2018). It gets even worse when taking into account that these bottles take 450 years to biodegrade (WWF, 2018). In times of

COVID-19, the environmental impact of Camp Moria gets even worse. To stop the transmission of COVID-19, equipment like bottles with soap or hand sanitizer and disinfecting wipes are handed out (UNICEF, 2020), all including plastics.

The Solar Still will make sure refugees can stop queuing for bottled drinking water. They only need a couple of bottles to fill with water, and those can be reused. Upon that, the Solar Still itself is 95% biodegradable. Also due to the reduction of queues, less PPE is needed to stop COVID-19. This will therefore better the environmental impact of Moria.

Play

This capability is there to ensure that everyone has an opportunity to laugh, play and do recreational activities. With the life that refugees live, this capability usually cannot be ensured, since their history is horrible and traumatizing (Tondo, 2018), their current situation is inhumane (Fallon, 2020) and their future hopeless and failure of morality (Wollaston, 2020). This usually does not give them a reason to laugh, play and do recreational activities. Upon that, queuing for water, food and other resources can take up to 12 hours (Kingsley, 2018), so there is no time for recreational activities left. However, there is of course always the possibility to laugh, play and do recreational activities, in for example the education centre (Theirworld, 2020). The lockdown imposed on the 7th of November only allows the refugees to go out of the camp to buy food or to see a doctor (Refugee Support Aegean, 2020a). Refugee Support Aegean (2020b) also reports that recreational activities, organised in education centres are not possible due to COVID-19 restrictions.

The Solar Still can bring some less queuing, which gives the opportunity for more time to laugh, play and do recreational activities.

Control over one's Environment (Political)

The first, political, part of this capability pledges for freedom of political choices which govern their life, and the ability to speech and associate freely. Within Camp Moria, refugees have no ability to affect the political choices that affect their life (Wallis, 2018).

Therefore, this capability is extremely harmed. COVID-19 and the Solar Still do not have an influence on this capability.

Control over one's environment (Material)

The second, material, part of this capability should ensure that everyone can hold property and have equal property rights, employment on equal basis with others. Upon that everyone should be able to work as a human being, exercise and have friendships with other workers. In Camp Moria, holding property can be really hard since resources are lacking (Panayotatos, 2020). Because of the general way the camp is set up, with queuing for resources, it becomes almost impossible to actually really hold property. Next to that, people usually need to skip the food or water line to be able to get medical care (Chapman, 2020). Also, there is no possibility of employment since the refugees do not have a home address (Islam, 2020). During times of COVID-19, this system of holding property through queuing, seems very displaced, since it brings the health of many of the refugees in big danger.

The Solar Still should provide the refugees with more equal amounts of water, as well as not having to queue for water. This will give them the opportunity to actually hold property, since they have control over their own water. Upon that, the key on the Solar Still prevents stealing and therefore gives a more equal opportunity to hold property without worrying.

Conclusion Social Sustainability & Quality of Life

There is no possibility to express Quality of Life in terms of numbers when measuring with the Capability Approach. However, it can be concluded that the Quality of Life in Camp Moria is extremely low. Upon that, the Capability Approach will provide for guidelines in which domains Quality of Life can be bettered. Other ways to express Quality of Life are through the 26-item scale of the World Health Organization Quality of Life Assessment (WHOQOL). In the current situation, it was sadly not possible to measure this scale since I have no possibility to contact our (main) stakeholder(s). This would be suggestion for further research to measure the current Quality of Life and the Quality of Life when implementing the Solar Still.

The implementation of the Solar Still will probably lead to a small, but beneficial changes in the lives of the refugees through the following capabilities: Life, Bodily Health, Senses, Imagination & Thought, Emotions, Other Species, Play & Control over one's environment (Material), Some of these capabilities will be influenced directly through the Solar Still. Other capabilities might be influenced indirectly. This will be because there is more water, less queuing, and less COVID-19. The reduction of COVID-19 cases can have small positive side effects, which can impact the Quality of Life of the refugees. The positive change will contribute to Social Sustainability. Social Sustainability will then not reach the same level as other forms of sustainability, there needs to be done a lot more to reach that. However, a positive change of Social Sustainability shows that the Solar Still actually has an impact.

Analysing the political situation that led to the current Camp Moria

Back in 2015, Camp Moria was meant as an identification centre, a place where refugees come into Europe, get registered and then get relocated to a place where they can apply for asylum. This would mean a stay in the camp for 2 days to a week (Hernandez, 2016). Back to 2020, where there are refugees that stayed in Moria for 3 years (Nielsen, 2020). As discussed before, the refugee crisis in Greece is something that has a rich and complex political background. Therefore, in order to understand how the refugees in Camp Moria ended up in these inhumane living situations, I will further investigate how Camp Moria lost control.

The EU-Turkey Deal

In 2016 the European Union and Turkey came up with a plan to battle the so-called European Refugee Crisis (Van Liempt et al., 2017). The idea of this statement was to stop the irregular flow of refugees arriving in Europe (Garcés Mascareñas, 2020). Turkey agreed on taking back refugees that reached the mainland or islands, while the EU would pay them billions of euros as well as get rid of the visa that Turkish citizens need to get into Europe (Van Liempt et al., 2017). Turkey would also make sure to speed up the asylum process, to check if their home countries were safe enough, and otherwise if Turkey was safe enough. For the ones that needed an even safer and stable environment the EU agreed on taking up to 72 000 Syrian refugees (Van Liempt et al., 2017).

Once the statement was released it was highly criticized by many, since it would violate the principles of collective expulsion and non-refoulement (Carrera et al., 2017). Collective expulsion means that you can only expel a group of people with a similar background when you went through a careful and legitimate examination of each individual (Carlier & Leboeuf, 2018). Non-refoulement is a principle that states that no country can expel a refugee back to their home country or any other country, such as Turkey, where their life and/or freedom would be in danger due to their nationality, race, or religion (United Nations High Commissioner for Refugees, 2007). Upon that, it would violate the Lisbon Treaty (Carrera et al., 2017). This Lisbon Treaty states that the EU has to protect refugees and should ensure that principle of non-refoulement is

recognised by the EU (Sokolska, 2020). With these principles some institutions and refugees went to court (Carrera et al., 2017). The EU argued that since the EU-Turkey deal was a statement between Turkey and leaders of the 28 member states of the EU, the Lisbon Treaty does not apply anymore (Carrera et al., 2017). And therefore, the statement is legal. Even though it is made, thought out, and advertised as work of the EU by the EU, they did not officially sign the statement and thus they can not be held responsible. Upon that, these kinds of statements are not binding, and therefore the court can not hold anyone accountable (Carrera et al., 2017).

Due to the nature of this statement, which is not binding, the EU is very vulnerable. This is something Turkey has used several times, they treated to let 15 000 refugees into Europe every month if they EU does not do what Erdogan, the Turkish president, wants (Blockmans & Yilmaz, 2017).

The influence of the EU-Turkey Deal on Camp Moria
The EU-Turkey deal was meant get the irregular flow of refugees to a halt. They EU also wanted to get the death rate down, which was very high due to smugglers (Van Liempt et al., 2017). However relatively more people are drowning than before (Van Liempt et al., 2017). This is possibly caused by smugglers having to take more dangerous routes, since the normal routes are heavily guarded by Turkey.

The EU-Turkey statement stated all refugees arriving on the islands were supposed to be send back to Turkey Garcés Mascareñas (2020), since they were not allowed on the Greek mainland. However, refugees are often not deported.

Refugees are supported by free lawyers from different NGO's, these lawyers do not only help with asylum applications, but they also try to make sure that refugees do not get deported (Lawyers Against Poverty, 2020). In the beginning of this year, the Greek Government developed a new law, which states that refugees have to hand in their asylum application within 5 days in Greek (Lawyers Against Poverty, 2020). If this does not happen, or the result is negative, the changes of being deported are high (Lawyers Against Poverty, 2020). This will likely get the deportation rates up.

Only refugees with a high recognition rates (>75%) are likely to get granted asylum (Van Liempt et al., 2017). Yet, these recognition rates often cause problems as well, since not all vulnerable people can show proof of why they are vulnerable. For example, victims of rape often do not have any proof. The same for unaccompanied minors, because they often do not have their own birth certificates, it cannot be checked if they really are unaccompanied (Van Liempt et al., 2017). Also, with the new Greek Law, vulnerable refugees are no longer protected from being deported to Turkey (Lawyers Against Poverty, 2020). Before, because no one was deported and barely anyone got asylum, this led to all the refugees being stuck in the camp. However, with the new law, it is expected that even less people will get asylum, since vulnerable people are not protected anymore and that more refugees than ever will get deported to Turkey.

 The situation of refugees being stuck, changed the centres that were once identification centres into detention centres (Van Liempt et al., 2017). These detention centres now had to also handle all of the asylum applications. Since the sending back

part was not really working, only 2005 refugees in 3 years (Deutsche Welle, 2019), the island became more and more full. According to Medicines Sans Frontieres (2017) the overfull camps, as a result of the EU-Turkey Deal led to severe mental health issues, which resulted in extreme forms of drug and/or alcohol usage, self-harm, and suicide.

Suggestions for Implementing the Solar Still in Camp Moria

In the Stakeholder Analysis I identified which stakeholders are important for the implementation of our product. In our case, none of the stakeholder should be negative about introducing the Solar Still in Camp Moria, as long as it is not costing more money and more time consuming. While we clearly can say that it is less time consuming for all of the involved stakeholders. It might be costing more money; however, this problem can be overcome by grants or funds from the European Union, Greek Government and NGO's as well as donations through general public.

The most important part when implementing the Solar Still is with regards to the stakeholders. It is important that they understand how the Solar Still works and use it in a correct way. When implementing the Solar Still there are a few important factors that need to be thought of:

- Dividing the Solar Stills

- Usage of a key

- Usage of the Solar Still itself

- Maintenance

I propose that the Solar Still will have a serial number, as well as a set of keys, including a spare key. The spare keys will be given to the volunteer responsible for the Solar Still, as well as a key that fits every single Solar Still to ensure that every container can be accessed at all times for safety reasons. We introduced a locking system for the clean water container to discourage conflicts.

I would suggest that when dividing the Solar Stills the name of the refugee will be registered in the system with the number of the Solar Still. From that moment on, the Solar Still can be easily used by the refugee. In this case we expect that the most active involvement of volunteers will be when starting up the Solar Still program, since this exists of registering everyone with a number. Also, involvement is needed to explain the usage and maintenance of the Solar Still to the refugees.

The usage of the Solar Still itself is really easy, therefore after an initial explanation there should be no involvement of volunteers necessary. Since the maintenance of the Solar Still is very low, and the seawater container only needs to be quickly rinsed every four

to six weeks, no involvement of volunteers is needed here. Possible involvement of volunteers after the implementation can be when refugees lost their key or when the Solar Still does not work anymore. However, a broken Solar Still can be easy fixable, since it is very low-tech.

When implementing the product, I recommend using a manual with easy visuals, so it can be followed by refugees that speak different languages or that maybe cannot read. This together with a demonstration in different languages to show how the top cap unscrews, where to put the water in, how to unlock the drinking water container, how to get the drinking water container in and out and how to get the drinking water in bottles or a jerrycan as well as a demonstration on how to rinse the seawater container properly, should be sufficient for the refugees. However, I am unsure about the learning curve of refugees, so this is very much open for discussion with experts.

Because of the current pandemic, these demonstrations as well as the registering should be held in small groups and different sections of the camp. We would also suggest placing the Solar Still within walking distance from the sea on different places in the Camp. This should avoid too many people coming together and conflicts. With the current lay out of the camp, as can be seen in the following figures, this would be possible. The Solar Still can stand on every surface and also works when it stands on an angle.

Figure 6 and 7: Camp Moria 2.0 (Migration Greece, 2020)

It can be concluded that the overall implementation of the Solar Still can take up a lot of time and effort from volunteers, since they need to registrate and demonstrate the Solar Stills. However, after this introduction period, there is less demand for drinking water, so there can be less volunteers handing out water. Therefore, the Solar Still will need less involvement than before from volunteers.

Conclusion

My ILOs where stated as the following:

1. Analyse the stakeholders and their context.
2. Analyse social sustainability, provide a framework for a definition and asses it with regards to our solution.
3. Analyse the political situation that led to the current state of Camp Moria

In the Stakeholder analysis I believe I found most of the involved stakeholders and portrayed them and their opinions very broadly. With regards to my second ILO, I believe I gave a clear definition of Social Sustainability within the timeframe and with the resources I have at hand. I would have liked to develop my own framework for Social Sustainability, and Quality of Life, however this was not possible within the current timeframe. Lastly, I believe I was able to sketch a comprehensive overview of the EU-Turkey deal and how this led to Camp Moria being overfull. This last objective was less relevant for the final product design, however I still consider it important, since it also give a bit more insight in what the situation is on a political level.

In general, I would say I accomplished a lot of knowledge. Upon that, I tried, and I believe I succeeded at putting myself in someone else shoes to find out what they need. This together has helped us finding the right solution and adapting it, so it is appropriate.

In this deepening there are still a lot of shortcomings. Firstly, since I have not been able to directly contact someone in the camp, all my information is second or third hand. This has led to less reliable information, however I tried to overcome this by checking as many different sources as possible. Besides that, one of the things I could improve is my writing style since it is not always very comprehensive.

First, I wanted to research how to stimulate engagement and technology adoption under refugees in camps. There has been research done about technology adoption of relocated refugees, however I decided that these situations are often way different, since the context is different, and the technologies are way more high-tech.

After finding out that this was not an option, I wanted to research the mental and physical effects of queuing. I saw multiple reports of psychologists that reported possible effects of queuing on mental health, however, there has been no research

done. In general queuing has only been researched in terms of queuing for things like customers services and there are very few studies done on queuing for necessities such as water and food. This knowledge could have had a big impact on our research, since we would have been able to state more concrete outcomes.

I really enjoyed working on the project and on this deepening. It highly interests me and would keep researching if I had more time.

All together I believe I have attained my own ILOs, since I have been able to provide an analysis with sufficient background information for each of them and in this way, I could contribute to the project and the development of the Solar Still.

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Appendix A

1. Life. Being able to live to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living.

2. Bodily Health. Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.

3. Bodily Integrity. Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.

4. Senses, Imagination, and Thought. Being able to use the senses, to imagine, think, and reason—and to do these things in a "truly human" way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice, religious, literary, musical, and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid non-beneficial pain.

5. Emotions. Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)

6. Practical Reason. Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience and religious observance.)

7. Affiliation.
   a. Being able to live with and toward others, to recognize and show concern for other humans, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of

affiliation, and also protecting the freedom of assembly and political speech.)

    b. Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin, and species.

8. Other Species. Being able to live with concern for and in relation to animals, plants, and the world of nature.

9. Play. Being able to laugh, to play, to enjoy recreational activities.

10. Control over one's Environment.

    a. Political. Being able to participate effectively in political choices that govern one's life, having the right of political participation, protections of free speech and association.

    b. Material. Being able to hold property (both land and movable goods) and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.