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Rehumanising refugee camps through sustainable environmental interventions: exploring the need for green initiatives in and around refugee camps in Lesvos

Sruthi Ravi

MASTER THESIS

Rehumanising Refugee Camps through Sustainable Environmental Interventions

Exploring the need for green initiatives in and around refugee camps in Lesvos

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Student: Sruthi RAVI
Master of International Cooperation in Sustainable Emergency Architecture
Supervisor: Mbongeni NGULUBE
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Abstract

'68.5 million displaced people worldwide' is a common phrase, known to most in the humanitarian field to emphasize the importance of the attention the refugee crisis needs (UNHCR, 2018). What we are unaware of, is that 7.6 million out of this 68.5 million people currently live in refugee camps all over the world, 85% of the 7.6 million in developing countries. This thesis explores the processes by which these refugee camps are rendered unsustainable, thereby dehumanizing its inhabitants. It elaborates why environmental sustainability as a baseline for holistic sustainability would contribute to rehumanize camps. This research is situated in Lesvos, Greece, a longstanding hotspot of transition to the European Union. The methodology followed was inductive, with an ethnographic approach to conducting interviews and socializing with NGOs, INGOs and asylum seekers on Lesvos. The main findings of my research have been, a) how asylum seekers are dehumanized, both spatially, via the isolating infrastructural layouts they are made to live in, and socially, by the confiscation of their constructive agencies, b) how asylum seekers are consistently subjected to substandard aid, especially in terms of food aid. In conclusion, there is evidence that supports the use of 'green initiatives' within refugee camps, as a means to attain sustainability while asylum seekers become contributing members of their society and further, to supplement food aid. In doing so, environmental interventions point towards a more sustainable mode of aid delivery and help rehumanize refugee camps.

Keywords: environment, sustainability, refugee camps, gardens, food aid, mental health

Contents

List of Figures

Acronyms

NGO	Non-Government Organization
INGO	International Non-Government Organization
UNHCR	United Nations High Commissioner for Refugees
UN	United Nations
EU	European Union
MSF	Médecins Sans Frontières
IRC	International Rescue Committee
OHF	One Happy Family
RV	Resident Volunteer
CR	Camp Resident
RIC	Reception and Identification Centre

1. Introduction

1.1. Problem Statement

Refugee camps are segregated spaces, set up through agreements between humanitarian aid organizations (like UNHCR) and countries that agree to host refugees during war or climatic disaster as an emergency response. Currently there are around 7.62 million people who live in refugee camps all around the world (UNHCR, 2018). As per the guidelines, camps are supposed to host a maximum of 20,000 people, but a majority of camps around the world contain more than that, for example, Kakuma Camp, Kenya and Bidi Bidi camp in Uganda (UNHCR Handbook, 2007). A camp that exceeds more than 5 years is considered to be protracted, and this is the case for most (Crisp, 2002).

Hoping that world leaders would allow all the refugees fleeing from war and climate change to integrate into their society right away could be considered wishful thinking. It is an area being explored by academics and practitioners alike, but it is unfortunately highly unlikely that refugee camps will cease to exist in the near future (Crisp, 2002; Siddiqi, 2013b). Taking into account most refugee camps are protracted (Chamma & Mendoza, 2015; Stevenson & Sutton, 2012), there is a dire need to look at the state(s) of these entities and to understand how people persist in these confined states of exception.

Refugee camps are mostly placed in deplorable, under-utilized, peripheral areas, away from local communities (depending on the policies in the said countries). There are mainly two types of formal refugee settlements: emergency relief camps, meant to be short-term, to manage the sudden influx of refugees coming into a country; and planned agricultural settlements, meant to be a longer term solution, such that the refugees become self-reliant in the future (Jacobsen, 1997; 2002). We are, however, currently faced with protracted emergency relief camps without any sustainable integrated long term plan.

In the process, refugees are often kept apart from their ordinary lives for a number of reasons, such as safety/ protection, to ensure calculable relief distribution, and unfortunately, to curtail their movement (Aiger 2002; Jansen 2015) and for the logistical convenience of exerting control over a large group of people, kept in an enclosed site (Aiger 2002). 85% of the world's refugees are currently hosted in developing countries (UNHCR, 2017), primarily so as to curtail their movement into richer countries (Cambrezy, 2001 as cited in Aiger 2002). This, then, begs the question, Are these actions ''neo-colonial tools of control'' (Hyndman, 2000)?

This research, will explore the standard operational mechanisms of refugee camps and question their sustainability. Additionally, the author plans to study the implications of ecological interventions in and around a refugee setting, as a means to rehumanize the space and make it more habitable than it is, thereby stimulating economic and social sustainability within these settings.

1.2. Research purpose and objectives

This thesis aims to scrutinize the environmental repercussions that refugee camps have caused, and are continue to cause. Specifically looking at how ecological interventions can affect the host and refugee communities alike. The main aim of this exploration will be to find a pragmatic and sustainable solution for camps.

2. Theoretical Background

The following literature review is broadly based on three topics, refugee camps and their spatial-social implications, the importance of localized sustainability and its importance in the context of refugee camps and finally, using the environmental urban fix paradigm, environmental interventions and their importance.

2.1 Refugee Camps: Their Spatial and Social Implications

This section explores how refugee camps dehumanize their inhabitants by taking away their agency, how through the practice of running a camp, its inhabitants are disempowered. It further concentrates on the spatial and social implications of dehumanization in order to better analyze the lack of social sustainability within the current paradigm of camp construction and operation.

A. Spatial implications of camps

The process of humanitarian response is relief, rehabilitation and development (UNHCR, 2007). The linearity of this process may pacify people in the short term, but dissuades the achievement of long term development goals, ultimately disempowering the population (Dixon et al, 2017). Relief, rehabilitation and development are processes that need to be iterative and overlapping (Siddiqi 2013b; Dixon et. al, 2017). In theory, this seems achievable, but the reality of the scenario is contrary. The host government's insistence on repatriation plays a key role in making sure camps seem impermanent resulting in the use of temporary shelters for protracted situations (Kennedy, 2013). Guidelines for camp design have not changed drastically because the effort has been focused on other policies of repatriation or integration by UNHCR (Kennedy 2013). Kennedy (2013) says UNHCR feels an increased sense of "host-government fatigue" (as demonstrated above) and that camps now act as a holding area until people are able to repatriate. Another key factor to be taken into consideration is that the host

government procures funding for this perceived impermanence of a refugee camp which unsustainably invigorates their economy, thus increasing their GDP (Idris, 2016).

B. Social Implications of Refugee camps on the Refugees

As previously mentioned, refugee camps are set up in segregated spaces away from urban entities as a statement of 'othering' (Haslam & Pederson, 2007; Barnum, 2014). This act by itself creates feelings of exclusion and isolation amongst the camp inhabitants. Haslam & Pederson (2007) state that these decisions automatically dehumanise, and expedite racism and fear-mongering rhetoric. They mention how the asylum seekers are often seen as a collective and referred to with terminologies akin to animals or things like 'swarm' or 'tsunami' and are not seen as suffering individuals. A key factor that plays into dehumanising asylum seekers is the media's portrayal of their situation. By dehumanising them, Haslam & Pederson (2007) postulate that one can safeguard themselves from an empathetic comprehension of the refugees' suffering and thus justify a moral callousness towards the crisis. Throughout the history of the camps, participants were not allowed to make key decisions concerning their livelihood, or their movement was restricted (Kaiser, 2005; Kennedy, 2013; Jacobson, 2001). This is another way of taking away their agency, which is fundamental to what is considered 'to be human' (Mulkens, 2017). In the same way, refugees are not allowed to participate in decision making in camps, which leads to the inefficient management of camps – exacerbating feelings of disempowerment and isolation (Chamma & Mendoza, 2015; Stevenson & Sutton, 2011). Borra (2019) addressed how participation could be conducted with transitioning populations by selecting local champions from within the refugee population. There is a perceived risk of changing power dynamics that may arise from participatory processes. Case studies have shown a change in power dynamics when INGOs hire refugees in camps, with growing resentment amongst the people who were higher in the natural social hierarchy (Agier, 2002). It is important to note that people would not willingly invest emotionally in a space that they believe they wouldn't be residing in for long; which then fails to enable any placemaking exercise of participatory processes, although this may be contextual. There are camps where refugees make their own dwellings, create vegetable gardens, make shops, etc. The extent of placemaking in a camp is highly dependent upon camp management. Some toolkits produced by INGOs elucidate the need for participation so that refugees can use these skills once they repatriate or move on to their final destination, but these are hardly ever implemented (Stevenson & Sutton, 2011).

2.2 Sustainable Development and Refugee Camps

This section explores the meaning of sustainable development and in what ways refugee camps may be considered unsustainable. It creates linkages between refugee camps, sustainability and dehumanization, and further explores the literature on how productivity

could rehumanize a camp. This section also acts as a predecessor to explicitly state the need for environmental interventions in refugee camps.

2.2.1 What is sustainable development?

To suggest appropriate interventions in refugee camps, there is a need to unpack what sustainable development means in the context of a refugee camp. Sustainable development is widely considered to be a systems approach employed in order to deeply understand the relationship between people (social), economic and environmental aspects, in a global or smaller geographical context, so as to estimate the repercussions of our actions (Kuhlman & Farrington, 2010). Kuhlman and Farrington (2010) also argue the importance and need of political sustainability for holistic and systemic understanding of the concept – as everything is governed by politics. Although a topic that requires much scrutiny, this thesis is not meant to engage in the politics of humanitarianism.

There are various ways of achieving the aforementioned sustainable development but this thesis argues the need to scrutinise a localised model of achieving social, environmental and economic sustainability which could then be applicable in the context of a refugee camp. We live in a time where the world is increasingly, intricately connected, where production in one physical space could influence the market in another part of the world. This phenomenon of globalization has its positives and negatives. On the one hand, knowledge sharing has never been this wide-ranging, on the other, neither has our consumption of imported products. Douthwaite (2004) argues that this global reliance on necessities could be considered unsustainable and puts local markets and hence, livelihoods at risk. One could contest that the increase in the spending capacity of the average person may lead to the well-being of people in the short run but may cause long term damage to the local ecosystem. He implores us to find a balance between the two and contends for a society that depends on basic needs (food, shelter and energy) from its natural resources and only use global markets for its wants. He demarcates a difference between the *need* to trade and the *want* to trade. Douthwaite (2004) makes fair assumptions but it is hard to ignore that globalization has fuelled innovation and given rise to opportunities in terms of variety of work although these opportunities and benefits may be unevenly distributed (Gereffi et. al, 2001). It is important to take into consideration the unsustainability of the import, export and consumption of non-localized products due to the mere energy expended to enable these processes (production, storage and transport to end consumer). Therefore, the localization of production and consumption of necessities (food, clothing and shelter) may be considered the most sustainable way of development. This self-reliant entity that the refugee camp may become if they adopt these

principles, does not necessarily threaten the mandate of the host-government, on the contrary, by sustainably invigorating the local ecosystem, they gain more than they lose.

2.2.2 Why are refugee camps unsustainable?

International humanitarianism is based on European paradigms of charity and has evolved into a multi-billion dollar enterprise (Siddiqi, 2013a). Siddiqi (2013a) claims UNHCR has reached its highest operating budget the past few years and has become increasingly standardised and regimented for efficiency of aid delivery (Siddiqui 2013b; Agier, 2013). This standardisation, Siddiqui claims, demarcates the "progress" towards an industrialised approach of humanitarian relief. Agier (2013) argues that camps could be seen as markets for humanitarian relief. The tremendous growth in the number of professionals in the development field during the last couple of decades validates this perspective (Agier 2002, Siddiqi, 2013b). This could criticised as well as applauded. Applauded because the universal standards would ensure minimum levels of safety and dignity (Kennedy 2013), and criticised because of how materials need to be shipped or flown in from warehouses Dubai or Copenhagen which are procured from China (Siddiqi, 2013a). The sheer energy consumed to bring something to the disaster stricken area is tremendous and wasteful if a working market exists in the same geographical region. Although, there is a shift in where materials are procured from in the long run after the initial period of emergency (Jacobsen, 2002; Siddiqi, 2013a). This proves that there is scope for improving the current approach of humanitarian aid towards a more sustainable system through employing a robust model after studying the vernacular.

Aid modality is key in how sustainable the aid provision is. There are currently three modes employed: a) In-kind aid, where raw materials are given to people to use, cook or eat; b) cash transfers (unconditional); and c) provision of vouchers or conditional cash transfers. Depending on the modality of aid, it may disrupt or enhance the local economic ecosystem (Idris, 2016).

Aid In-kind includes packaged food, water and Non-Food Items (NFIs). Industrialised aid, disrupt indigenous production and put smaller traders and producers in jeopardy (Idris, 2016; Dixon et.al. 2017). In some communities, relief may lead to dependency and affect the resilience of the communities and in due course, stagnate development altogether (Macrae, 1988, cited in Dixon et.al, 2017). Unconditional cash transfers are the best way to inject money into the local economy, because this gives people the freedom to choose where to purchase from (Idris, 2016). In an analysis of case studies by Jacobsen (2002), the provision of

unconditional cash transfers were found to be misused. Microloans proved to be a much better method of injecting aid, helping people expand their businesses and promoting accountability in the process (Jacobsen, 2002). Therefore, the localization of aid (empowering local actors with the funds to recuperate and initiate development) and hence localization of production could be seen as a form of sustainability. As Dixon et al. (2017) elaborated in their paper about the importance of localized aid, the general process of relief and aid need to be scrutinized for further analysis of a refugee camp's sustainability and the effects these systems of aid may have on the inhabitants of the refugee camp, the host communities and governments at large.

2.2.3. Can Productivity and Livelihoods Contribute to Rehumanisation?

Refugees are often seen as transient population, as *non-contributors*, due to their temporality in a space. Knowing that camps last for years, *forced idleness* is detrimental to one's mental health. Economic activities also have the capability to empower marginalized groups and challenge gender roles in communities (Agier 2002, Jacobsen 2002). This in turn can help human security, both within and outside the camp through economic interdependence with the local population, and has the potential to ease tension between communities (Jacobsen 2002). Jacobsen (2002) points out that by viewing refugees solely as victims "waiting for handouts" cripples systems and prevents the host community/ country from seeing them as contributors to their economy. Although, it is interesting to find that the prevalence of micro economies are inevitable, and that disabling the existence of these would only cause conflict, and may further give rise to illicit methods of accessing resources, for example human trafficking or stealing to buy one's way out of the camp. Solutions and strategies for economic activities could be made contextual and adjusted to the needs of the community. A contradiction to these interventions could be the difficulty refugees may face to pursue livelihoods as they have undergone stressful situations and are now placed in a constricted environment managed by aid organizations. Jacobsen (2002) postulated that overcoming these hardships requires collective and cooperative efforts. Chamma & Mendoza (2015) compared two camps in the same context and noted that the one with a thriving economy increased the livability of the camp proving how economic activities and productivity could return a sense of purpose to the refugees, hence rehumanising them.

2.3 Importance of Environmental Sustainability in Refugee Camps

The need for environmental sustainability over social and economic sustainability is scrutinized in this chapter. Schumacher (1973) states how a globalized economy and capitalism are concepts based on consumerism and exhaustion of resources. He suggested we redirect our attention to a localized economy working simultaneously with nature for a

sustainable future. Schumacher (1973) claims that there is a direct correlation between the well-being of humans and their environment. Building on this, there is a vast and growing body of literature on environmental urban fixes that support and justify the greenification of urban environments for improved well-being (Harvey, 1996a cited in While et. al, 2004). Additionally, a direct correlation has been found between mental health and environmental interactions such as gardening (Clatworthy, Hinds & Camic, 2013).

The type and location of settlement could affect the environmental impact created by the camp (Jacobsen, 1997). Jacobsen's (1997) findings pointed out a direct correlation between environmental degradation and the influx of refugees. Even though recent literature has proved this to be subjective and contextual, the need for a more holistic and hands-on approach when it comes to dealing with the environment in and around refugee camps still holds to be true. She illuminated the benefits of agricultural settlements, stating that it promotes self-sufficiency and food security, helps wean off aid in the future and promotes rural development. This was contradicted by Kaiser (2005) through her extensive case studies in Uganda. She claimed that, in theory, the benefits might seem straightforward, but practically it is much more complicated in a protracted situation, for example, when the size of the family grows, and the land is insufficient for the number of people per family, which leads them to farm intensively and degrade the soil, or the inability of inhabitants to cope with issues like flood and drought. It's hard to ignore that Uganda has been seen as an example when it comes to encampment and yet there are shortcomings in the environmental strategies related to food security that have been implemented there. Refugees in the camps still require rations from aid organizations (Kaiser, 2005). Although Jacobsen (1997) does emphasise on the positives of agricultural activities, stating that they have the potential of bridging gaps and promoting sustainable practices and integration between locals and refugee populations through economic activities, Kaiser (2005) contested the extent of the economic activities that refugees in camps were capable of taking part in with the restrictions placed on their movement. She noticed the trend of people who were not interested in agricultural activities slowly moved out of the camp, often illegally or paid their way out to pursue other livelihoods, and usually the most vulnerable remained in the camp.

Various studies have shown the effects of refugee camps on the environment. Some show that they had no effect in areas that were not resource abundant (Smith et al, 2018), and some showed that the camp management (in terms of improper design of the camps) depleted the environment in the long run causing damages like soil erosion (Bradford 2016a, Jones 2001, Jacobsen 1997, Martin 2005). Only a few academics addressed the pollution caused by the material (Food and NFIs) brought into the camp by the INGOs, although not extensively. It is

astonishing to see that some camps do not have a single tree inside, which could be seen as a purposeful decision that may symbolize permanency (Bradford, 2016a). Smith et al (2018) claim that restrictions for green interventions is more political than environmental – and this sentiment was echoed when Bradford (2016) asked a humanitarian officer from FAO in Somalia about planting trees in a refugee camp in Somalia, his answer was a stern no. It is commonly found that trees in and around camps are felled for firewood, for cooking or heat. In one case study, the inhabitants of the camps were felling invasive trees that was depleting the water table - which benefited the environment (Smith et al. 2018); in other case studies indigenous trees, important for the ecosystem, were felled, which perpetuated the growth of invasive trees that degenerated the soil, produced harmful pollen and prevented other species of plants from growing (Bradford, 2016; Jacobsen 1997; Jones, 2001). These results beg the need for an in-depth environmental assessment of the site before, during and after the placement of the camp, in order to prevent ecological issues from persisting.

Martin (2005) theorizes that a refugee influx could exacerbate an ongoing environmental degradation process, and resource management is key manage any further environmental impact. Black and Sessay (1998) echoed this by stating that institutional capacity and flexibility is key to manage resources and incoming population. If resources are used equitably, it has the capacity to perpetuate environmental resilience as well as social resilience thus paving a path for building institutional capacity and future cooperation. Although there is sufficient literature available on this topic, environmental management lacks donor support as it is not *seen as relief but development* (Dixon et al, 2017; Whitaker 2002, as cited in Martin 2005).

Other reasons for planting in and around camps could be to tackle safety. Women and children are at a risk of sexual harassment and abuse when they go outside the camp to gather firewood (Jacobsen 1992, Bradford 2016). Bradford (2016) stated that this could be easily mitigated by growing appropriate plants in the camp. Jacobsen (1992) postulated that if refugee camps were made smaller and spread out over larger areas, they would cause lesser damage to the environment and aid in integration. She failed to explain this with empirical data, nor did she mention how this could be highly contextual depending on the resources available around the site/s. A larger number of camps, could cause systemic degradation, whereas when a particular site is degraded, it could be targeted and revived with methods of agroforestry or permaculture.

The main takeaway is that the environmental management/ revitalization should be the key aspect of planning and managing camps, since ultimately, it has the potential to bring forth social and economic equity (Martin, 2005). Mental health is a recurrent theme in the literature

on green interventions in and around refugee sites (Bradford, 2015; 2017). Interviews conducted in the Domiz refugee camp in Iran mentions the refugees' engagement with gardening as (mental and physical?) nourishment and reminiscent of home (Lemon Tree Trust, 2017). Gardening activities could also act as a space to build social cohesion amongst the inhabitants of the camp, further leading to better mental health (Borra, 2019).

3. Methodology

The methodology followed was inductive, with an ethnographic approach to collect qualitative data. The intention was to conduct semi-structured interviews and socialize with individuals living in the chosen location of the case study. The perspectives required to understand the situation for this research needed interviews with asylum seekers as well as international and local non-government organizations (INGOs and NGOs) that worked with the asylum seekers, particularly in the field of ecological interventions and health sector. The need to socialize with the aforementioned individuals was to identify concerns that were not that visible to someone conducting a study for a short period of time. The author kept in touch with them afterward for clarifications that would have been required during the writing of this thesis.

The initial location of choosing was Thessaloniki in Greece, as it had cases of refugee camps with green interventions. However, it was impossible to gain formal access to the camp to conduct this study, which led to the change of case to Lesvos, the island with the most number of asylum seekers passing through to enter the mainland of EU (around 59% of asylum seekers go through Lesvos).

One well-known example of a refugee camp that initiated a large scale food garden project is Zaatari Refugee camp in Jordan. There was an assumption that, learning about the initiation and process this project took could be helpful to gain a perspective from another context with asylum seekers with similar backgrounds. Thereby semi-structured interviews were conducted remotely with two NGOs and one camp inhabitant in Zaatari.

To carry out the research in Lesvos, 22 people from various backgrounds were interviewed. The interviews had open ended questions pertaining their experiences in the refugee camps. The names of the informants were changed in order to protect their identity.

Table 1: Interviewee list

Interviewee information	Country of Origin	Number of participants			
In Lesvos		**Names**	**Men**	**Women**	**Total**
INGO professionals		Susan, Antonio, Fatima, Liz, Rosemary	1	4	5
NGO professionals		Andrew, Mark, Margeline, Zuri, Borra	2	3	5
Camp residents	Yemen	Hussain, Abdul	2	-	2
	India	Jaspreet	1	-	1
	Pakistan	Ali, Asif, Husnain	3	-	3
	Afghanistan	Aazar, Nabeela, Kaadil	2	1	3
					19
In Jordan					
NGO professionals		Mehnaaz, Bernardina Borra	2	-	2
Camp residents	Syria	Abu Amer	-	1	1
Total					**22**

Challenges faced

The situation in Lesvos was similar to Thessaloniki in terms of restricted access. It took several weeks of communication with the camp authorities in Thessaloniki to decide to not engage with them. Some requests of documents and rules from an email they sent is listed below:

"Furthermore, we would also like to have a reference for the compatibility with research ethics, code of practice, the research protocol and samples of your questionnaires..... The surveys that require recordings are made only on handwritten notes….. Please also note, that the authorization for a visit is given for a specific day and time and for a specific purpose upon examination of the supporting documents and availability of the Camp. Moreover, please keep in mind that photo shooting and video recording are not allowed. In case the RIS and the Coordinator of the RIC or the person in charge judges during the research irregular behaviour or process, they can stop the completion of the research." (Camp management Diavata, 2019)

This stoic response displays unwillingness to cooperate with outsiders at the risk of rousing bad publicity. Similarly, photography and videography is strictly prohibited by anyone in Lesvos as well, including asylum seekers who live inside the camp, which explains why all the photos in this document is not produced by the author but are photos from the inhabitants of the camp. Since Moria has a large population (approx. 6000 inhabitants), even if they do not keep track of each person who is entering the camp, they are certainly on a look out for anyone who might seem like they do not belong there. Kara Tepe, another refugee camp in Lesvos, is stricter about access. Each person entering the camp is checked by security. This high amount of control may be indicative of the Greek authorities trying to withhold information on the camps.

Along with interviews, an assisted walk-through was conducted in Moria refugee camp with the inhabitants, which aided the observational analysis. Walking through Moria was intimidating as the space was male dominated. Women were either in corners, or in groups or indoors. The author was slightly threatened for her safety while walking through initially, but was put to ease as time passed.

Another challenge that inhibited data collection was the journalist/ researcher fatigue she faced from a few NGOs. They spoke about how a lot of journalists and researchers come to Lesvos for their own benefit. Although, they do not realize that the exposure they received has largely contributed to the funding and grassroots movements seen in Lesvos.

Using the three main areas of my literature study i.e. refugee camps, sustainability and camp's interaction with the environment, venturing into field work took this research towards the

potential humanizing aspects of a camp rather than looking at it just through the point of view of sustainability. A daily journal along with interviews were analysed, and the recurring topics were then coded to scrutinize the patterns that emerged during the fieldwork. The main recurrent topics were the systemic subversion of asylum seekers by authorities, abysmal food aid and finally, the role the NGOs in Lesvos played to close the gaps created by governing bodies.

4. Case Study: Lesvos

Asylum seekers chose Greece as a gateway to Europe due it's to accessibility through Turkey. In 2015, at the height of the migration from Syria, Afghanistan and Iraq, the EU created a policy called the EU – Turkey deal that deterred people from entering EU illegally. In March, 2016, After the EU-Turkey deal came into effect, there was a reduction in migration through the sea to the Greek Islands. This signifies that the EU – Turkey deal helped reduce deaths at sea and formalized asylum seeking processes, though there is a need for a deeper enquiry to understand how it affects people who have migrated before the deal came into place, people whose countries are not a part of the immediate resettlement process and are waiting in limbo inside various refugee camps on the Greek Islands. In August 2017, the Greek authorities took over the management of both the camps (IRC, 2018).

Lesvos is one of the closest islands to Turkey, other than Samos, Chios, Leros, and Kos, which are also much smaller. The total population of Lesvos is 85,000, and the number of documented refugees on the island is approximately 6900 (UNHCR Factsheet, April 2019). 59%; around 1,000,000; of the migrants that reached mainland Europe, traversed through Lesvos in the height of the migration in 2015 making Lesvos a transit hotspot. Lesvos is 2 hours by boat from the nearest Turkey shore on a clear day (Yakzan, 2016) (Refer Figure 1).
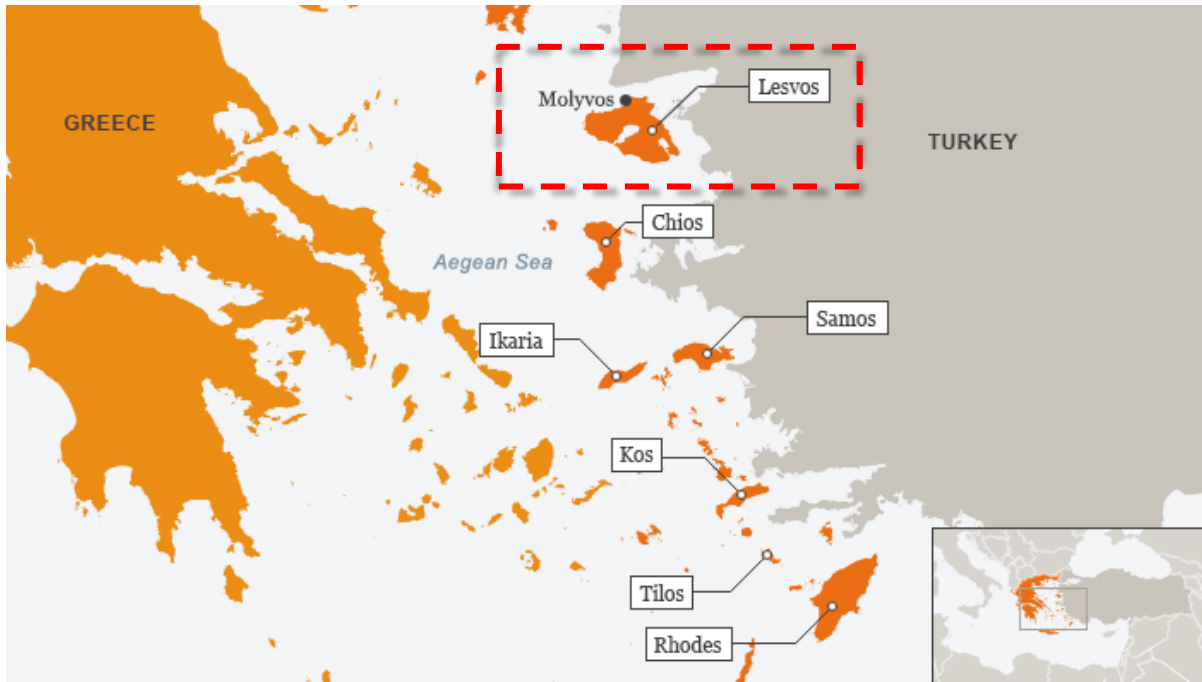
Figure 1: Map of Lesvos; source: http://www.greekisland.co.uk/lesbos/lesbos.htm, 2016
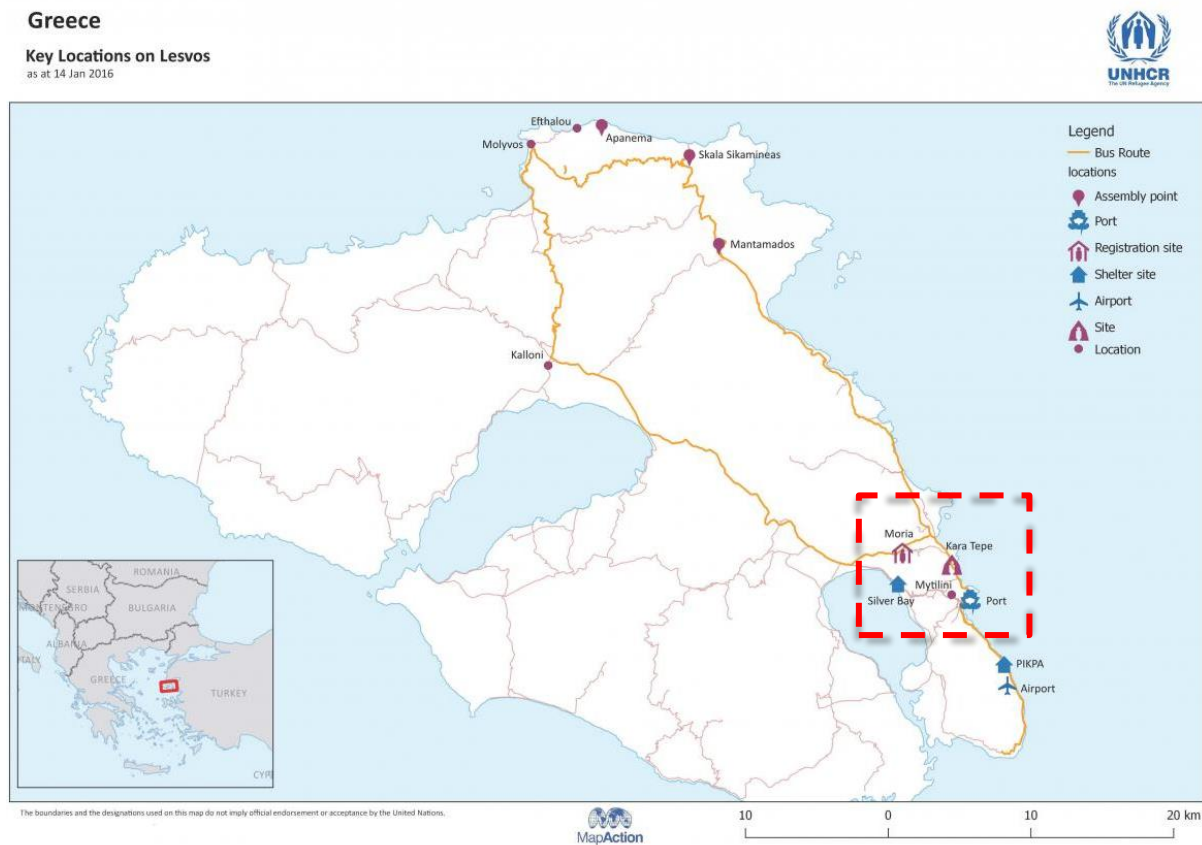

Figure 2: Key locations in Lesvos; Source: UNHCR, 2016

Refugees mostly arrive on two beaches, which are Skala Sikamineas and Molyvos (Refer figure 2) where volunteers and locals await them. International organizations run the transit hubs. Mytilene is the downtown area, and most of the NGOs have their headquarters there. There are two official camps in Lesvos run by the government, called **Moria and Kara Tepe** and one unofficial camp called Pikpa.

Moria was a military base with a capacity of 3100, and was repurposed as a refugee camp in 2014, at the start of mass migration. Moria currently hosts around 5000 in its premises and 500 live outside in the spill over area (aka Olive Grove) in UNHCR tents. Olive grove is unplanned and looks like an informal settlement. The asylum seekers are free to enter and exit as they wish, there is no restriction on movement in Moria, as Lesvos being an island restricts movement geographically.

Kara Tepe (KT) was constructed specifically for vulnerable population arriving in Lesvos. People would spend a minimum of 25 days at the Reception and Identification Centre (RIC) in Moria and depending on their nationality and vulnerability, would be transferred to KT. Each family lives in one housing container to what they refer to as an ISO box. An ISO box of 3 meters by 5 meters with 1 light and a charging point. Everyone must carry and show an ID while entering and leaving, or must take prior permission from the municipality.

Pikpa is an informal camp called Pikpa asylum seekers live in. It is managed by an NGO called Lesvos Solidarity and currently hosts 90 asylum seekers.
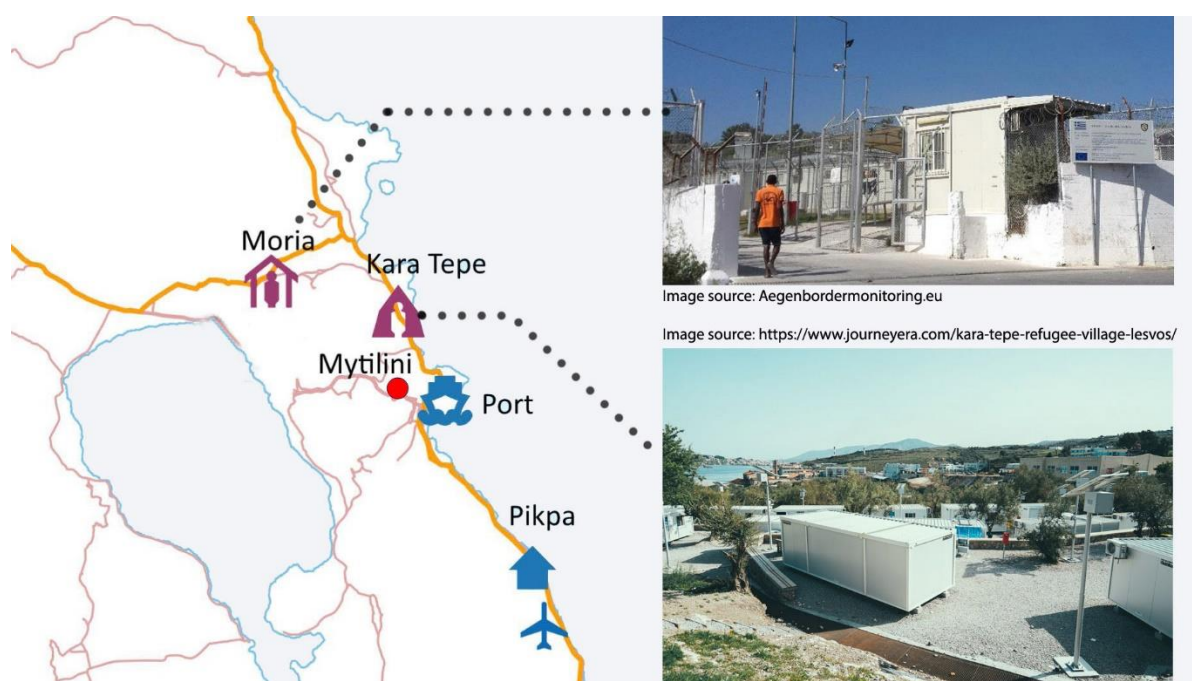

Image source: Aegenbordermonitoring.eu

Image source: https://www.journeyera.com/kara-tepe-refugee-village-lesvos/

Figure 3: Base Map Source: UNHCR, 2016

Table 2: Quick Facts of Refugee camps in Lesvos

Quick facts: Moria & Kara Tepe		
	Moria	**Kara Tepe (KT)**
Main function	First Reception centre + holding centre + accommodation	Temporary housing for vulnerable population
Population	5500	1500
Population type	Mostly single men, single women, unaccompanied children - in segregated areas	95% are Families
Housing Typology	Containers and tents; Non-compliant of Sphere standards	Containers; Complaint of Sphere standards
Food aid	Packaged food distributed 3 times a day through single distribution point	Packaged food delivered to each container 3 times a day
Cooking	Some use electric stove inside	Communal kitchens provided
Electricity	Conventional source connected to each container	Each container has its own solar panel - known to be insufficient
Distance from city center	7.5 kms	3 kms
Safety	accounts of violence reported several times a week	Safer and healthier
Sanitation	Common toilets	Common toilets

5. Case study Analysis

Introduction

The field work was conducted in the month of April, 2019. The analysis of the findings are divided into three parts. The first part covers the challenges faced by the inhabitants which eventually disempowers them. The second part explores how this systematic dehumanization is unsustainable for all stakeholders. The third section postulates how these ecological

interventions impact multiple sustainability criterion. Furthermore these three sections would then support the need for policy recommendations at the end of this document.
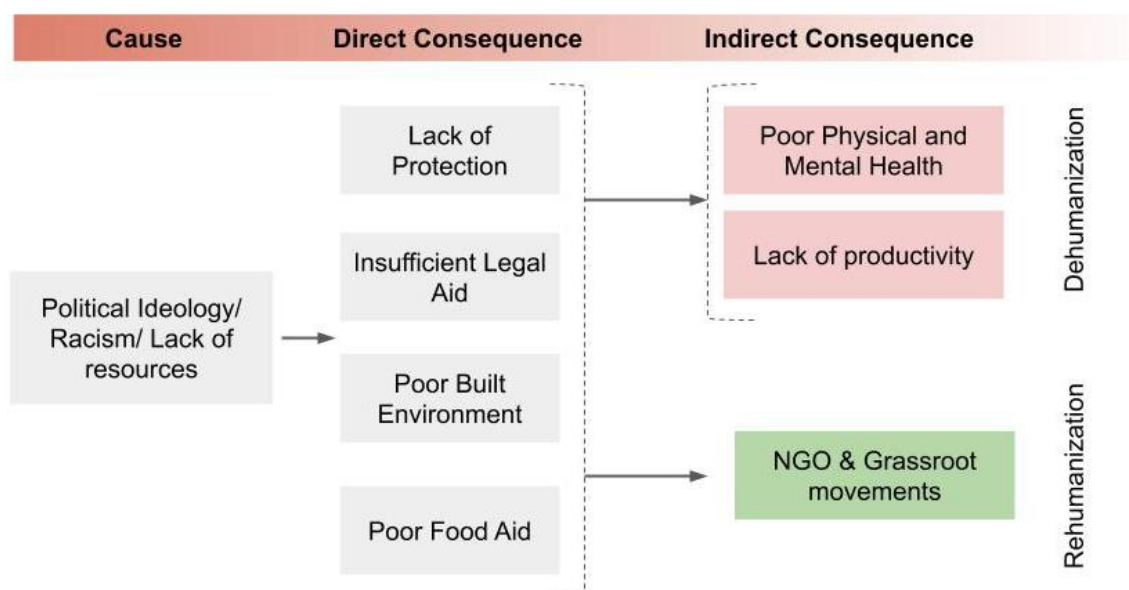

Figure 4: Analysis diagram

5.1 Systemic subversion of asylum seekers in Lesvos

There is a need to scrutinize the various ways in which the camps in Lesvos dehumanize its inhabitants. The first section will focus on the neglect of fundamental humanitarian law and lack of protection by the Greek government of refugees in Lesvos. This coupled with the lack of will and racism towards refugees have dehumanized them. It is an analysis of the accounts of NGOs and refugees alike, understanding both perspectives to see if there lies a contradiction or if the views are concurrent. The policies that govern the management of the said camps and how this is carried out in practice are vastly different from the findings on field. These were either verbally expressed or observational findings.

5.1.1 Lack of protection

Once refugees arrive in Lesvos, they are taken to the Reception and Identification Centre (RIC) in Moria. They are documented and given a place to stay in Moria. If they are categorized as vulnerable, they are sent to Kara Tepe. The speed of an asylum seeker's asylum process highly depends on which country he/ she/ they are coming from. If the person is coming from a country such as Yemen, the asylum process is much faster than a person coming from Pakistan, as Pakistan is at a comparatively lesser threat. Additionally, hiring a lawyer in Mytilene is expensive, so if someone lacks the resources, they are stuck in Moria. Camp residents interviewed have the common opinion that the asylum process is unjust. Some slowly lose their hope of leaving Greece and have started to think about their future in Greece (Asif, personal interview, 2019). People who are deemed vulnerable (for e.g.

differently-abled or old or pregnant individuals) are given priority in their asylum seeking process. A grim learning while conducting this research was the ways by which people attempt to get the vulnerability papers in order to speed up their asylum seeking process. Some couples resort to having children, some resort to self-harm just to get the papers said Susan, a medical INGO employee. Once they are pregnant or suicidal, they are either transferred to KT or the mainland. A system that makes people yearn to be vulnerable is a system that is flawed. Some interviewees said that every time their asylum was denied, they were kept in jail for a minimum of three months. Ali, a 20 year old Pakistani who fled home at the age of 17 due to inexplicable circumstances was kept in jail for 7 months after his asylum was denied. He was granted bail only because his health deteriorated and was sent back to Moria. Everyone interviewed claimed that the most amount of violence and conflict in Moria comes from the food line. Camp residents spend 6 - 8 hours waiting in line for food every day. The police seldom intervenes, unless the fights gets out of hand. Aazar, a 34 year old asylum seeker from Afghanistan who lives in KT with his family, recollected an incident when a resident tried to cut the line, another person hit him on the head with an iron rod that led to him fracturing his skull. All the interviewees said that fights break out almost every day, especially when the camp was overcrowded in 2016 - 2017. Antonio, a 29 year old INGO employee, said that there is a "passive resistance of the police" to record complaints. They put them through cumbersome procedures, and ask them to go to Mytilene to record the statements. This deters asylum seekers because they would need to pay for a bus to Mytilene, while living on 90 euros a month. The main concerns of camp residents interviewed was that no action would be taken against petty crimes. Theft applies to anything they plant too. As soon as it starts to bear fruit, it would get stolen.

The problem with the lack of protection faced by the residents of camps is not solely inside camps, but on their journey to Lesvos and other Greek Islands. This is important to mention because they are coming from one bad environment to another, and there is no solace that they can find for a long time after they have fled their homes. The above mentioned instances are factors leading to the general mistrust in the police and other authorities. Rosemary Morrow, from Permaculture for Refugees (P4R), an NGO that aims to bring environmental education to refugees, said that this whole system is about exerting control on a vulnerable group of people for monetary gain. There are positive examples of refugee camps where the country gives them land, albeit on lease, as examples of well-intentioned sustainable management of camps. So in every sense, "management is doing double the damage right now".

5.1.2 Racism and Harassment

Interviewing Ali shined light on the recurrent discrimination faced by the refugees on Lesvos, which was then echoed by the other refugees interviewed. Ali and his friends are often interrogated by the police when the visit Mytilene, allowing them to leave the police station after checking their credentials. The police never checks them on the spot nor drop them where they picked them up from. The refugees need to always find their way back to the camp, no matter what hour of the day it is. Ali comes to Mytilene three times a week for classes, while expecting to be caught every time he is there. Jaspreet, an Indian asylum seeker, experienced a similar situation, where he and his friends were allowed to leave the police station very late, forcing them to walk 7.5 kms back to Moria. The locals who are pro-migrants mentioned how this systemic harassment in Mytilene is normalized by everyone living here, the migrants expect it, and the locals don't raise an eyebrow when they witness it. Some of them mentioned that they've been checked by different policemen as much as *4 times a day*. Jaspreet, talked about how this whole process of "checking their credentials" in public made them feel less than human. Despite this harassment, they aren't dejected by the idea of seeking asylum in Europe. Antonio, and the Greek locals interviewed suspected that this harassment was a way the policemen showed their authority. They added that they were probably asked to carry out routine checks because the long term asylum seekers in Lesvos who lived there illegally were from the Indian Subcontinent. Asylum seekers, legal or not, live in constant fear of getting caught by the police. Some are aware that the authorities don't follow the international humanitarian law but they are helpless and *unable to show resistance for the sake of their asylum seeking process slowing down.*

As soon as the asylum seekers are documented, they are given the permit to work on the Island. CRs usually find work with UN agencies, local NGOs and INGOs as translators. It is important to be aware that this constitutes only a handful of jobs. It is rare for local business to hire asylum seekers because of the lack of trust and uncertainty about how long they would be on the island for. Antonio mentioned how the olive groves (Lesvos's primary source of revenue) have a shortage of staff, but they refuse to employ refugees. If the CRs are unable to find jobs, they look for volunteer opportunities to avoid wasting their time. The freedom of movement and the freedom to work while residing in a camp is not very common (case example for the contrary, Zaatari Refugee camp in Jordan) (Kaiser, 2005; Jacobson, 2002; Agier, 2002) though the racist rhetoric disempowers them from taking advantage of this "privilege".

The interviews revealed personal accounts of racism experienced, some are: *"locals do not sit next to us", "they hold their bags tighter when we walk past them", "once I was sitting next to a Greek*

colleague from the permaculture course, and two old Greek men walked past us looking at us and shouting at her for sitting and talking to a refugee, no one is spared, not the locals who talk to us, nor the refugees."

The authorities blame the inhabitants for their violent behaviour, unaware that they are in fact a cause (this was echoed by Aazar). This issue of exerted control manifests in other ways, like violence towards the authorities or towards other members in their social group or outside, and **self-harm.** During coordination meetings, if issues are raised, there is complete and absolute denial of any account of responsibility by the camp management.

"If someone does something wrong, they blame all of us. And if we complain about anything, like our heaters not working during winter, the camp management says, 'If you are not happy here, we can send you back to Moria'." (Aazar, 2019)

There is a constant threat of sending people back to Moria, which keeps them from protesting against the authority, and for the people in Moria, it is the threat of not being able to leave. They are constantly made to feel disempowered and isolated in their struggle for normalcy. Another battle they fight is access to information. Aazar and Antonio said the biggest hindrance asylum seekers face is incorrect transfer of information from one asylum seeker to another. There are no information points or dissemination of legal education for new arrivals. People are unaware of their rights and they rely on older camp residents for information about their asylum processes, while the information being passed on might be incorrect and may further frustrate individuals. The asylum process is constantly changing, the authorities are aloof about informing everyone as there is a lack of will. There is a criminalization of help for example, when the sea rescues were carried out, the rescuers were accused of human trafficking and arrested by the police. The main reason for mistrust towards the government is the lack of transparency and support.

The constant harassment and racism refugees face in Lesvos disables them from integration, to find jobs, or to be productive contributing members of the society. This systemic and institutionalized dehumanization further worsens the liveability of refugee camps. Bad memories are associated with these transitory spaces. There needs to be a constant evaluation and iteration of policies that worsen the health and well-being of people fleeing from persecution.

5.2 Direct Consequence: Manifestation of the "Othering"

After analysing how refugees are being discriminated against, there is a need to elaborate on how they have been physically dehumanized through aid provision. This in turn influences the faults could be tackled and supports the recommendations that will be elaborated on.

5.2.1. Poor Built Environment

The living conditions in Moria is subpar at best. Many of the residents complained about erratic supply of electricity in Moria and in KT, especially in the winter. When getting off the bus at Moria there is a strong stench of open sewage (figure 5 & 6) flowing in the entrance of the camp.

Figure 5: Open sewage flowing towards the entrance
Image source: Interviewee Beni's archives

Figure 6: Open Sewage at the entrance of Moria

A stream running parallel to the entrance is heavily polluted as well. Upon entering the camp, one observes industrialized architecture of housing containers that are placed very close to each other (Figure 8). There have been fires that broke out due to bad electrical wiring, and destroyed several Ikea shelters due to their close proximity. It is important to note that even after fires breaking out in the camp, the spaces between the containers have not been increased. Andrew, a volunteer with a grassroots NGO, was told by an officer of a UN agency that the conditions remained this way to deter people from coming. Upon further research concurrent information was found online (Leape, 2018). Antonio, an employee from an INGO said *"waiting is institutional punishment"*, he implied waiting for asylum or for a necessity like food. Moria has narrow streets and no communal spaces. There is a gathering space outside the camp in the Olive grove (Figure 3). Concerning flora, Moria lacks any sign of greenery

inside the camp (Figure 4). The landscape is harsh with gravel, tarpaulin, housing containers and barbed wire. The residents of the camp interviewed recurrently mentioned how this feels like jail.

Figure 7: Gathering space in Olive grove; Image source: Interviewee Hussain's archive

Figure 8: Inside Moria's Minor's section; Image source: Interviewee Beni's archives

5.2.2. Poor Food Aid

The following section describes the mode of food aid, type of food and cooking habits of inhabitants in Kara Tepe and Moria separately. It is interesting to note how the mode of food aid and cooking habits are different by design in both the camps and has a direct correlation to asylum seekers mental health.

Kara Tepe:

In KT, they deliver food in plastic packaging to each housing container's doorstep three times a day (figure 11). Breakfast is provided by an INGO, although minimal, is nutritious and healthy, and the Camp Residents (CRs) seem happy with it. The lunch and dinner is currently supplied by the same caterer that supplies food in Moria. Aazar had just received his dinner during the interview and talked about how the potatoes were undercooked. He could not cook them in his housing container as the electricity supplied wasn't sufficient to power a cooker. He mentioned how he does not give his kids the food supplied by the caterers and prefers to give them biscuits and cornflakes that he is sure is safe for consumption. The CRs are put in a tough spot of staying hungry or eating bad food that would inevitably make them fall sick. CRs of KT have the option of going to the communal kitchens. Out of two communal kitchens, only 1 works, and out of 6 stoves, only 4 of them function. This kitchen is in high demand and every family is allotted 1.5 hours every week to cook for themselves and some cook in the outdoor barbeque pits made by an INGO who works inside Kara Tepe. The quality of food catered will be further described in the next section.

Moria:

All the interviews always veered into the direction of the inept food line in Moria (Figure 9). As there is only one distribution point, a general day in the life of a CR in Moria starts at 5 am in a food line, waiting for a small bottle of water and a croissant for two to three hours and then waiting in line again for the next meal (Figure 13). Each CR is issued a food card with a barcode scanner thereby recording the data of the number of people who eat. Despite that, Aazar (lived in Moria for 2 months after which he and his family was transferred to Kara Tepe) mentioned accounts of how if he was one of the last few people in line, he would not receive food. Knowing that there is a shortage of food supplied, it is not surprising that the food line incites violence, which is a unanimous view of all stakeholders interviewed. After waiting for several hours in the food line, the food received is often inedible or smells which has often given the CRs no other option but to dispose of it. Several interviewees spoke about being served rotten eggs or uncooked/ putrid meat, undercooked rice, undercooked potatoes, etc (figure 6 & 7). There were accounts of camp residents finding maggots in their food as well. The food they receive also lacks in nutritional value and is often not enough.

There are barbeque pits set up in Olive Grove outside Moria by the above-mentioned INGO. Once they set it up, they were warned by locals that the CRs would now start felling trees to use it as firewood. The INGO was aware of this repercussion but decided to go ahead with it nevertheless for concerns regarding safety, access to food and the mental health of the residents of Moria. They currently collect cardboard and old branches that are lying around to

burn. These outdoor cook stoves cannot be used during the monsoon either. There was only one instance reported of the residents burning trees during the winter when they had no other way to keep warm (Squires, 2017).

Figure 9: Moria's Food line; Source: Interviewee Jaspreet's archive

Figure 10: Rotten eggs thrown in a pile as a protest
Source: Interviewee Hussain's archive

Figure 11: Inedible food thrown away

Husam, a young Yemeni asylum seeker, said *"once you smell the food, you feel like throwing up. People are hungry but they still throw the food because that is how bad it smells. Sometimes they give us bread, raw tomato and feta, that's the best we have gotten. We work as translators and they give us food from the Moria caterers. (*Showing me his messages) *Look at this, no one responded, no one wants that food*"*.

There is no concrete evidence of how many people cook in Moria and how many receive food from the food line, but many of the interviewees mentioned that at least 30% of the population cook inside their container houses and 20% cook on open fires (figure 12). Two years ago the explosion of a gas canister caused the death of two people living inside a tent in Moria (UNHCR, 2016).

Figure 12: Electric cooker inside the container in Moria;
Figure 13: Breakfast in Moria; Source: Camp resident's archive

With limited funds refugees pool their money to buy rations in bulk, to cook and eat together, sometimes cooking the food they receive to make it edible. It is important to note that CRs who are unable to purchase an electric stove and utensils, especially the unaccompanied minors in the camp are forced to eat what the caterers supply - marginalizing the most vulnerable in terms of access to safe and nutritious food.

When asked about changing the mode of supply during a camp management meeting, the management said that the military has experience in supplying food for a large number of people and knows what they are doing. Susan, an INGO employee, mentioned how the camp residents themselves have come up with pragmatic solutions for the food line that could be

easily adopted by the camp management but she thinks that the refusal of the management to change this system comes from a place of nonchalance and general laziness because of the bureaucracy involved. The question of theft is nullified with the computerised process. An NGO mentioned that firstly, if each family has a card, and most people are cooking, they are supposed to have an excess, not a shortage, secondly, the camp management can see how the food is being wasted day after day and are still not doing anything about it. The CRs have had several strikes for the food, but nothing has changed.

Mushrooming out of this chaos is an active food economy. Some businesses take food from the food line and sell it for a small amount, some other camp residents sell falafel sandwiches and biryani. This shows an emergence of an embryonic economy that is unavoidable in any long term settlement (Agier, 2002). Providing people with rations was a common consensus of the preferred method of food delivery, especially when they have space to cook.

In conclusion, this chapter elaborated on the various kinds of discrimination asylum seekers face. On a larger political level, the lack of will and a built environment that made refugees feel unwelcome was observed. The current food assistance program is suitable only for emergencies, not for extended emergencies as in the case of Moria and KT (Webb et.al, 2014). It is uncommon that two camps in the same region have different types of food distribution models. Although, KT has the population of 1500, which is only 1/3ʳᵈ of the population in Moria, which could explain this difference.

The systematic dehumanization seen at a political level was found to be infiltrated to locals that would see refugees as foreigners that have come to use up their resources and not as individuals who could benefit the society if given the opportunity. The current system of humanitarian relief in Lesvos treats a person like a victim, they provide the food, shelter and other necessities instead of enabling people to get back to normalcy as quickly as possible. This constant victimization is a reminder of a past they are trying to get away from. Through the field work and an analysis of the UNHCR and Sphere guidelines, it was found that the Greek authorities violate all the basic standards of access to safe and nutritious food (UNHCR, 2019) through their system of food provision in KT and Moria. The UNHCR Handbook (2007) claims that the programs created are supposed to promote food security by increased production, which are reflected on field only by increased production in factories and increased supply chains, not local food production. The Handbook (2007) clearly mentions how *"food security programs should work closely with livelihood programs to provide longer term solutions to promote self-reliance"*, which is not the case in Moria nor Kara Tepe currently. Additionally, the mode of food housing provision was sustainable that could use

iteration. In short, the aid provision in Moria and KT need to improve at least to the basic standards.

5.3 Indirect consequence

In the following section, the indirect consequences of the unjust manifestation of the decisions taken will be elaborated and analyzed. This leads to the discussion of the various ecological interventions and supplementary services that emerged on the island and its benefits that resonated with multiple asylum seekers interviewed.

5.3.1 Consequences as a result of Dehumanization: Factors exacerbating poor Mental & Physical health

The common consensus is that the people who have made it to Europe are often from the middle class who could financially afford the treacherous journey for an average time period of three months. Rosemary Morrow, an environmentalist, said for people who had reasonably paid jobs, and who had normal lives (echoed by several camp residents), are now forced to waste time in queues all day.

> *"I think people who haven't been through this don't understand the implications of this **forced idleness**, it's not just being able to sit back and enjoy spare time, and it is that you are not allowed to use your skills and abilities. You are not allowed to use forms of your capital. There are forms of capital that need to be used and exercised like your mind and body." (Morrow, 2019)*

Forced idleness coupled with poor treatment and insufficient nutrition, worsens asylum seekers' physical and mental health. Mollica et al. (2004) state that any opportunity for economic well-being, and rebuilding their social capital could pave a way for better mental health and put them on a path of recovery. They elucidate how the current camp conditions all over the world exacerbates the psychological and psychiatric issues that emerge from what they fled from. MSF and IRC (2018) echo these findings in Lesvos (personal interviews, 2019). Mollica et al. (2004) and Miller & Rasmussen (2010) argue the importance of a protecting physical environment that should aim to reassure them and normalise their everyday life. They acknowledge that the attention given to mental health is underrated in refugee camps even when it's common knowledge that people in complex emergencies face mental health issues. IRC's (2018) report about the mental health of asylum seekers in Lesvos mentions that 30% of their clients from Moria have attempted suicide and 60% have considered it. Adding to the daily stressors, the uncertainty propagated by the lack of accurate and transparent information

dissemination affects the mental health of camp residents. The IRC report notes that many daily stressors could be easily avoided and the lack of will prolongs the status quo. Additionally, medical NGOs on the island are only allowed offer refugees primary health care. This applies tremendous strain on the only hospital on the island.

5.3.2 Efforts taken to rehumanize by NGOs & Grassroots movements

Greek islands saw a mass inflow of volunteers and NGOs from all over the world who contributed greatly to the crisis in Lesvos. This unprecedented grassroots movement could be contributed to the bad media attention Greece received in the year 2015 – 2016 and the geographical accessibility of Greece to the West.

a. Supplementary services (medical, skill building, educational courses, language courses, legal aid)

Gaps being filled in by NGOs varied from coast guard duty to education. They created opportunities for learning languages and skill development. Services on the island are overwhelmed, there is no service that is underutilized according to Antonio. All the camp residents interviewed except one, volunteers with different NGOs, some, simultaneously taking up courses offered by One Happy Family (OHF) and other centres. OHF acts as a community centre bringing in volunteers, local NGOs and asylum seekers in one place, offering a space of solace and learning.

Rachael, a project manager from an NGO called Better Days (BD), a Swiss NGO, thinks there is a shift in how NGOs are approaching projects over the years of the crisis; that projects undertaken by NGOs aim at productivity, capacity building and livelihood engagement that would ultimately have economic benefits – shift from aid to development and rehabilitation.

After interviewing various NGOs, it was noticeable how coordination was limited. Mark, from a grassroots NGO concurred. The meetings between the various UN agencies is more akin to a debriefing session every week. Although medical organisations and legal aid organisations try to coordinate their efforts. Currently all activities offered in OHF and other NGOs is open to everyone, although very seldom locals participate since the programs do not specifically aim to integrate.

b. Ecological interventions

This thesis intends to explore how ecological interventions could humanize the refugee camps. First section gives you an overall perspective of the situation in KT and OHF where

the environmental interventions are situated and discusses how it has affected asylum seekers who partake in these interventions, and the second section elaborates how ecological interventions in Lesvos has the capacity to supplement food aid, build social capital and tackle pollution.

NGOs are currently spearheading the ecological interventions in KT and OHF where asylum seekers from Moria and Kara Tepe take part in productive gardening and environmental education. Clatworthy et al.'s (2013) research shows that there is significant quantitative and qualitative data on how our body responds around nature, with reduced levels of stress, depression, anxiety, and significant increase in attention span and self-esteem. Rosemary Morrow conducted a permaculture workshop with asylum seekers in OHF. Morrow said that planting is a neutral activity and wouldn't threaten policies in any way. When asked about her thoughts on mental health and working or interacting with plants, she said:

"Nelson Mandela said what kept him sane in prison for nearly 30 years was being able to garden every day. Waiting for judgement, waiting to see if he would be executed, he could garden every day and that's what kept him going." (Morrow, 2019)

When enquired about how the knowledge of permaculture could help people in camps because of the lack of space for implementing a large scale holistic design, she answered unfalteringly about how small scale permaculture is what they could focus on, trellis, bottle gardens, etc. She added that most people are going to resettle in dense urban areas with very little space, and this knowledge could be easily situated there.

One of the Moria's resident, a 20 year old Ali, used to live in Pikpa for 1.5 years and he used to volunteer in the garden for two hours every day. This kept him preoccupied, and the harvest of the garden was used in the lunches served in Pikpa. He said that gardening kept his mind and body busy in Pikpa but right now, while living in Moria, he is unable to think about anything but his asylum process. This is an indicator of how even short term engagement with therapeutic horticulture could have positive outcomes. Antonio thought that the idea of being in control of something, as you are when you grow plants, is bound to be positive for the camp residents because their lives are engulfed by uncertainty.

One Happy Family - Better Days: The management of the garden in OHF is undertaken by Better Days (BD). Environmental projects like the one BD has, is grant funded. Grant funding

transpires in a cycle of 6 months although this may be contextual. The issue with this kind of funding is that it interrupts the project, especially when it is an educational or a research/ data collection project. This deters any continuous research concerning environment and refugee camps in their phase of emergency.

Rachael hopes to explore how environmental projects could possibly help refugees integrate better with food and environmental conservation as their common ground. She thinks that agriculture is a great way to create stronger connections between locals and refugees. She spoke about an instance when she brought the wrong type of soil for the garden and thought of disposing it, a resident volunteer, touched and tasted it and said it was alright to use. She said it was a very memorable teaching moment for her because she was humbled by his knowledge. Rachael says that this constant dissemination of technique and information is perpetual in the garden. Another instance was in Pikpa, an Afghani resident currently grows onions and turnips because his neighbour, who was a farmer in Afghanistan said they grow easier than other vegetables with less maintenance. The community garden in OHF was prone to destruction at the peak of the crisis and she implied that it was necessary for a community-based protection model to safeguard it from destruction and theft.

Kara Tepe: The gardening project in KT is funded by a Dutch NGO. There is a productive garden and few flowering gardens dispersed around KT. Both these projects are taken care of by two separate CRs. Personal accounts of volunteers working with one of the CR showed a considerable difference in their attitude. This could be merely situational, but she said that the CR was reserved in the beginning of the project, but now he is more confident and relaxed, and able to direct volunteers with work that needs to be done. He had started becoming an initiator than a doer. When other CRs asked him what the point of beautifying the camp with flowers was, and hinted that what he was doing is futile, he said *that he didn't think it is pointless and that they live in this space and he wants it to look beautiful. He added that his work, the plants that he planted and the flowers that have blossomed would be the legacy he will leave behind when he resettles. He thinks looking after plants is like looking after children, they need care and attention to see them grow and flourish.*

In the case of volunteers in KT, they deem their garden shift as the highlight of their week, because they are working with their hands in a more relaxed stress free environment, and there is an opportunity to mingle with the camp resident volunteering with them or CRs visiting the garden. The garden automatically became a space conducive for social engagement. A few amongst the asylum seekers are farmers. Being given opportunities to garden helps them practice what they already know and impart knowledge to others. Additionally, the nurses in the medical centres advise them to visit the garden in OHF to reduce stress.

i. Supplement Food Aid

Gardens are not an uncommon phenomenon in a refugee camp. There are several accounts of them organically cropping up in various contexts (Lemon tree trust, 2018; Susan, personal interview, 2019, Borra, personal interview, 2019, Mehnaaz, personal interview, 2019). It comes from a need to save money, supplement their food source, and perhaps a need for normalcy. Susan said, *"There was a lady in a camp in Athens who made a whole garden around her house as she used to work on a farm. In another camp, a person used to grow his vegetables. Another camp situated on arid land had just containers placed upon gravel. In the summer people brought plants and planted it next to their houses the make the place more beautiful and habitable."* Pikpa and KT currently has large patches of food and flower gardens in them (Figure 14 & 15), Moria does not, but there is a plan to implement permaculture principles learnt in a workshop in the informal extended part of Moria (Figure 16). CRs of Moria have tried to grow vegetables there but they said it was impossible because it would get stolen or the authorities would set up a container over it due of the lack of space.

Figure 14: Garden in Pikpa; Source: Interviewee's archive
Figure 15: Garden in Kara Tepe: Author's archive

Figure 16: Implementing the learnings from the permaculture workshop in Olive Grove; Interviewee Abdul's Archive

The produce that comes out of OHF currently contributes to the community centre's kitchen which makes around 800 meals a day. It was interesting to note how the food grown the garden was different from the food Resident Volunteers (RVs) were used to, and this helped them learn about new vegetables and its nutritional value, especially which parts of the plant could edible.

It is vital to note that creating gardens to feed 5000 - 7000 people every day could require planning, effort and resources that need to be allocated for matters that are more urgent. However, it is key to note that the aim is not to replace the food source right away, but to supplement it until there is a vision for development, when they could plausibly aim for self-sufficiency, while creating jobs and providing nutrition and a safer and more habitable environment.

ii. Building Social Capital

As Mollica et al. (2004) mentioned the importance of social capital in mental health, there is abundance of evidence of how gardening initiatives have led to integration and social cohesion (Harris, Minniss & Somerset, 2014; Veen et. al, 2016). Rachael from BD manages the Eco-hub. Along with the garden and the greenhouse attached to it, they are responsible

for running educational programs related to the environment. The greenhouse acts a multifunctional space for conducting workshops. She talked about how this being the only green space in OHF makes it very popular amongst the people who want to hold workshops and for the asylum seekers who visit the centre too. Rachael mentioned how women and men interact different with the space. Men are more likely to physically interact with the space by using tools and offering to help, whereas woman would use the space to socialise. In Zaatari refugee camp, Jordan, the agriculture project is a women empowerment project where they recruit only women to take the lead, and have workshops solely for women (Mehnaaz, personal interview, 2019). This challenges gender roles are previously perceived in a situation where this isn't controlled.

Rachael from BD said that their garden in OHF served as a pilot to inspire other NGOs on the island. Another project Eco-hub is initiating research and the creation of a database for natural ways to treat common ailments, which would be shared with other stakeholders on the island and provide much needed support to the overwhelmed medical staff on the island.

iii. Tackling pollution through ecological interventions

Moria has been cleaned up since it was threatened to shut down in September 2018 (Tagaris, 2018). The toilets are cleaner, there is better lighting in the camp and there is not much plastic waste lying around as seen in the older photos of the camp. Margeline's (co-owner of an NGO in OHF) maker's lab innovates with upcycled materials and simple technology that could be easily taught to the asylum seekers. She said that sewage was a problem no one was tackling and that the municipality pulls out 10 trucks worth of sewage from Moria every day because the drainage system does not have the capacity to handle the waste from Moria. She and her team are currently designing compost toilets to solve this.

Webb et al (2014) finds a gap in their research about the operational practice of food aid, composition of food aid, cost effectiveness of various sources and packaging. A major source of pollution in Lesvos as mentioned earlier is the plastic waste from the food containers. The waste is not segregated in Lesvos so it is either incinerated or dumped into a landfill. Besides the plastic pollution, the amount of food wasted because it is inedible is stipulated to be around 50% according to the residents interviewed. The containers and tents in both refugee camps are shipped or flown in from warehouses. Additionally, there is no information available about how the tents or containers are recycled or reused post it lifespan.

All the findings from the field point to environmental degradation that occurs because of the system that are currently in place. The media and locals are usually quick to blame refugees

but what they don't see is the disadvantageous situation they are forced in. Holistic environmental interventions would aim to regenerate land, modify the environment from harsh to soft by providing shade, locking in moisture and improving soil quality, to list a few examples.

Through the above findings, it is safe to conclude that NGOs working on site were trying their best to enhance the quality of life of asylum seekers and rehumanize through workshops and green projects. Alas, these projects are ad hoc and although contribute to enhancing the asylum seekers' lives, it fails to contribute to the sustainability of the camps, preventing systemic benefit to all stakeholders. A consequence of marginalisation is the creation of social networks within the camps. Refugees stick to their communities for protection, share their resources and help each other.

6. Conclusion

Introduction

This thesis explores how and why refugee camps in practice could be dehumanizing its inhabitants and, how holistic environmental interventions could relieve some of the strains on camp management as well as asylum seekers, thus making refugee camps more sustainable and habitable.

Research objectives: summary of findings and conclusions

Refugee camps needn't be romanticized as spaces of positive exception. It is imperative to observe it practically, to see how it needn't necessarily empower people but how it certainly shouldn't disempower its inhabitants. The current operations at Moria and Kara Tepe disempower people, takes away their voices, shuns them and damages multiple stakeholders involved in the long run.

Main findings:
- Environmental assessments have not place before, during or after, as mentioned in the handbooks.
- Even if asylum seekers are legally permitted to work, due to systemic harassment and racism, they are unable to become contributing members of society. This eventually affects their self-worth, resulting in affected mental and physical health.
- The built infrastructure and services available on the island is insufficient, especially the housing and mode and quality of food aid given to the asylum seekers. One of the main findings was that asylum seekers lack access to safe and healthy food which threatens their physical and mental health.

- A single distribution point for 6000 people would inevitably cause impatience leading to anger and aggression, which later turns into the violence, as witnessed in Moria.

- The grassroots movements in Lesvos are unprecedented. Gaps in services and healthcare were filled in by NGOs and volunteers on Lesvos. The main challenge of the grassroots movements was the lack of coordination. If NGOs were well coordinated, the current ad hoc interventions would be more holistic.

- It is almost impossible to replace food aid through gardening interventions for 5000 – 7000 people, although, it could definitely supplement it and add nutritional value that is currently lacking in both camps. While supplementing the food aid, it could be a source of productivity for asylum seekers waiting indefinitely for their papers to process. There is sufficient research to show that green initiatives contribute to social cohesion, hence common goals of growing food and restoring the environment could bridge gaps between locals and asylum seekers.

- Besides the mode of food aid, the plastic packaging that the food comes in was found to be a major source of pollution. The detrimental effects of this mode of food aid needs to be studied further.

6.2 Recommendations

- Housing needs to appropriated to a particular place and must be locally sourced instead of being shipped in. This would generate employment, invigorate local markets and be the most sustainable option for housing provision.

- Each container should be given the opportunity and space to grow their own produce, and this should be designed to prevent theft. This would require a planning strategy that needs more space between housing units, and might need further inquiry.

- The biggest challenge faced in the incorporation of medium or large scale environmental interventions is requisite permission from authorities. Environmental strategies should be a part of the master plan. The aim of these strategies should be holistic, aiming to save water, treat grey water to reduce the burden on the sewage system, regenerate soil and finally supplement food aid.

- Locals should be involved in the decision making of these strategies to prevent conflict.

- Packaged food should only be distributed at the initial phase of the emergency or in the first month of arrival of asylum seekers in the island. Ideally, cooking practices should be encouraged as this has proven to be the safest and most nutritious mode of consumption.

- Encouraging asylum seekers to buy and cook could invigorate local markets while giving them the autonomy of choice.
- If there is a need for distribution points, they should be multiple with barcode scanners to reduce waiting time and prevent theft. The maximum time anyone should wait for food should be 45 minutes.
- Each container should come with an inbuilt electric cook stove. If this isn't possible, a kitchen should be provided for 5 households at a time for access, safety and ownership.

There need to be stringent policies in place that have <u>environmental protection as their baseline</u> to promote environmental and social sustainability. With environmental protection as a baseline, ecological interventions are an inevitable method for achieving a more equitable and sustainable system of aid delivery, such that benefits all stakeholders involved.

As this research demonstrates, the issue is not an ingenuity gap (Dixon, 2000) rather it's a lack of will, on the part of the Greek authorities, to change the current systems in place. The aforementioned interventions could result in the creation of social networks, better mental and physical health, and reduction in violence and crime due to the creation of a supplementary source of food and finally, a transfer of knowledge that enables the refugees to grow their food once they are finally resettled.

Bibliography

Agier, M. (2002). Between war and city: Towards an urban anthropology of refugee camps. Ethnography, 3(3), 317-341.

Agier, M. (2013). From Ghettoes to Cities. An Interview with Michel Agier [Interview]. Trialog, 112/113(1-2), 89-91.

Barnum, A. J. (2014). Marginalized Urban Spaces and Heterotopias: An Exploration of Refugee Camps. Retrieved from https://rumiforum.org/marginalized-urban-spaces-and-heterotopias-an-exploration-of-refugee-camps/

Black, R., & Sessay, M. F. (1998). Refugees and environmental change in West Africa: the role of institutions. Journal of International Development, 10(6), 699-713.

Adam-bradford, A. (2016). Agroforestry for refugee camps. Agriculture for Development, 28. Retrieved from https://pureportal.coventry.ac.uk/en/publications/agroforestry-for-refugee-camps-2

Perkins, C., Adam-bradford, A., & Tomkins, M. (2017). Thriving spaces : greening refugee settlements, (June), 2015–2017.

Chamma, N., & Mendoza, C. (2017). Rethinking Refugee camps from 'temporary' camps to sustainable settlements, Conference paper, Retrieved April 10, 2019, from Researchgate website: https://www.researchgate.net/publication/317694602_RETHINKING_REFUGEE_CAMP_DESIGN_FROM_'TEMPORARY'_CAMPS_TO_SUSTAINABLE_SETTLEMENTS

Clatworthy, J., Hinds, J., & M. Camic, P. (2013). Gardening as a mental health intervention: a review. Mental Health Review Journal, 18(4), 214-225.

Crisp, J. (2003). No solution in sight: the problem of protracted refugee situations in Africa.

Douthwaite, R. (2004). Why localisation is essential for sustainability. Feasta Review, 2, 114-123.

Homer-Dixon, T. F., & Dartnell, M. (2001). The ingenuity gap: how can we solve the problems of the future?. International Journal, 56(1), 181.

Dixon, Steven & Romera Moreno, Elsa & Sadozai, Amal & Haj Asaad, Ahmed. (2017). Localisation of Humanitarian Response in the Syrian Crisis.

Gereffi, G., & Kaplinsky, R. (2001). Introduction: Globalisation, value chains and development. IDS bulletin, 32(3), 1-8.

Haslam, N. I. C. K., & Pedersen, A. N. N. E. (2007). Attitudes towards asylum seekers: The psychology of exclusion. Yearning to breathe free: Seeking asylum in Australia, 208-218.

Hyndman, J. (2000). Managing displacement: Refugees and the politics of humanitarianism. U of Minnesota Press.

Idris, I. (2016). Economic impacts of humanitarian aid

Unprotected, Unsupported, Uncertain (Rep.). (2018, September). Retrieved April 10, 2019, from IRC website:
https://www.rescue.org/sites/default/files/document/3153/unprotectedunsupporteduncertain.pdf

Jones, A. (2001). Practicing and promoting sound environment in refugee/ returnee operations. 29-34

Jacobsen, K. (1997). Refugees ' Environmental Impact : The Effect of Patterns of Settlement, 10(1).

Jacobsen, K. (2002). Livelihoods in conflict: the pursuit of livelihoods by refugees and the impact on the human security of host communities. International migration, 40(5), 95-123.

Jansen, B. J. (2016). The protracted refugee camp and the consolidation of a 'humanitarian urbanism'. International Journal of Urban and Regional Research.

Kaiser, T. (2006). Between a camp and a hard place: rights, livelihood and experiences of the local settlement system for long-term refugees in Uganda. The Journal of Modern African Studies, 44(4), 597-621.

Kennedy. Jim., (2013), Design, Manifestation and Development in camps for the displaced. Trialog (112/113), 5 - 12.

Kuhlman, T., & Farrington, J. (2010). What is sustainability?. Sustainability, 2(11), 3436-3448.

Transforming Land, Transforming Lives(Rep.). (2017). Retrieved March 15, 2019, from Lemon Tree Trust website: https://www.ruaf.org/sites/default/files/Transforming Land, Transforming Lives.pdf

Leape, S., (2018, September 13). Greece has the means to help refugees on Lesbos – but does it have the will? Retrieved from https://www.theguardian.com/global-development/2018/sep/13/greece-refugees-lesbos-moria-camp-funding-will

Martin, A. (2005). Environmental conflict between refugee and host communities. Journal of peace research, 42(3), 329-346.

Mollica, R. F., Cardozo, B. L., Osofsky, H. J., Raphael, B., Ager, A., & Salama, P. (2004). Mental health in complex emergencies. The Lancet, 364(9450), 2058-2067.

Miller, K. E., & Rasmussen, A. (2010). War exposure, daily stressors, and mental health in conflict and post-conflict settings: bridging the divide between trauma-focused and psychosocial frameworks. Social science & medicine, 70(1), 7-16.

Mulkens, S. (2017, July 29). The Dehumanization of Refugees: A Framework. An analysis of how dehumanization affects the lives of refugees in two different refugee camps/centers. Retrieved April 16, 2019, from https://dspace.library.uu.nl/handle/1874/362019

Schumacher, E. F. (1973). Small is beautiful: a study of economics as if people mattered. Vintage.

Smith, L., Howard, D. A., & Martin, S. F. (2019). Local Integration and Shared Resource Management in Protracted Refugee Camps: Findings from a Study in the Horn of Africa. Journal of Refugee Studies, 0(0).

Siddiqi, A. I., (2013a), Humanitarianism & Monumentality. Trialog (112/113), 14-18

Siddiqi, A. I., (2013b), Emergency or Development? Architecture as Industrial Humanitarianism. Trialog (112/113), 28 - 31.

Stevenson, A., & Sutton, R. (2011). There's No Place Like a Refugee Camp? Urban Planning and Participation in the Camp Context. Refuge: Canada's Journal on Refugees, 28(1), 137-148.

Squires, N., (2017, December 10). Burning plastic, adult nappies and a mental-health crisis: Camps on Greece's Aegean islands at breaking point. Retrieved April 19, 2019, from https://www.telegraph.co.uk/news/2017/12/10/burning-plastic-adult-nappies-mental-health-crisis-camps-greeces/

While, A., Jonas, A. E., & Gibbs, D. (2004). The environment and the entrepreneurial city: searching for the urban 'sustainability fix'in Manchester and Leeds. International Journal of Urban and Regional Research, 28(3), 549-569.

Global Appeal 2018 - 2019(Rep.). (n.d.). UNHCR. doi:http://reporting.unhcr.org/sites/default/files/ga2018/pdf/Global_Appeal_2018_full_lowres.pdf#_ga=2.64519279.1531610852.1558264398-941208986.1558264398

United Nations. (2018, June 19). Figures at a Glance. Retrieved April 12, 2019, from https://www.unhcr.org/figures-at-a-glance.html

UN High Commissioner for Refugees (UNHCR), Handbook for Emergencies, February 2007, Third edition, available at: https://www.refworld.org/docid/46a9e29a2.html [accessed 15 May 2019]

UNHCR. (2016, November 25). UNHCR saddened by tragic death of woman and child in Moria, Lesvos[Press release]. Retrieved April 10, 2019, from https://www.unhcr.org/gr/en/2537-unhcr-saddened-by-tragic-death-of-woman-and-child-in-moria-lesvos.html

Food Security in Camps. (2019, January 01). Retrieved May 19, 2019, from https://emergency.unhcr.org/entry/254103/food-security-in-camps

Yakzan, A., (2016, January 28). Refugee Flows to Lesvos: Evolution of a Humanitarian Response. Retrieved March 10, 2019, from https://americandreamlawoffice.com/refugee-flows-to-lesvos-evolution-of-a-humanitarian-response/

Webb, P., Boyd, E., de Pee, S., Lenters, L., Bloem, M., & Schultink, W. (2014). Nutrition in emergencies: Do we know what works?. Food Policy, 49, 33-40.

Harris, N., Minniss, F., & Somerset, S. (2014). Refugees connecting with a new country through community food gardening. International journal of environmental research and public health, 11(9), 9202-9216.

Veen, E. J., Bock, B. B., Van den Berg, W., Visser, A. J., & Wiskerke, J. S. (2016). Community gardening and social cohesion: different designs, different motivations. Local Environment, 21(10), 1271-1287.

Tagaris, K. (2018, September 20). For asylum-seekers on Greece's Lesbos, life 'is so bad here'. Retrieved April 19, 2019, from https://www.reuters.com/article/us-europe-migrants-greece-lesbos/for-asylum-seekers-on-greeces-lesbos-life-is-so-bad-here-idUSKCN1LZ218

Annex:

I. Questionnaire for Asylum seekers

Name:
Age: _____ Sex: _____
Year of seeking asylum
Name of residing camp
Camp managed by

Background info on refugees

- Where are you originally from? Which town?
- What jobs did you do there?
- Did you garden back home?
- How do you feel about the prospect of gardening?
- What do you miss most about home?

Questions relating to their lives in the camp

- Are you working now?
- What job are you doing?
- How do you generally go about your day?
- Do you cook or receive food?
- What do you think about the rations you receive? How different is it from back home? Are you used to it by now?
- What do you cook?
- What fuel do you use for cooking?
- Would you like a job related to growing food?
- If not, what are your main concerns?
- How do you think learning to grow food or just learning to garden could possibly help you?
- Do you think the skill of growing your own food is useful wherever you go? Y/N
- Would you prefer your own private garden or a community garden? (Explain that community gardens occupy larger areas and hence more produce could be gained)

II. Questionnaires for NGOs

Name
Job
Name of organization
Camp managed by

Information about the camp

- Population of the camp :
- Amount of transitionary population:
- Average time a refugee spends in this camp

Background information regarding current supply of food

- Where do they currently source food from?

- Understand the supply chain:
- What inhibited them from growing food earlier? Was it permissions? Land? Lack of knowledge? Is it maintenance? Is it lack of knowledge, no supervision?
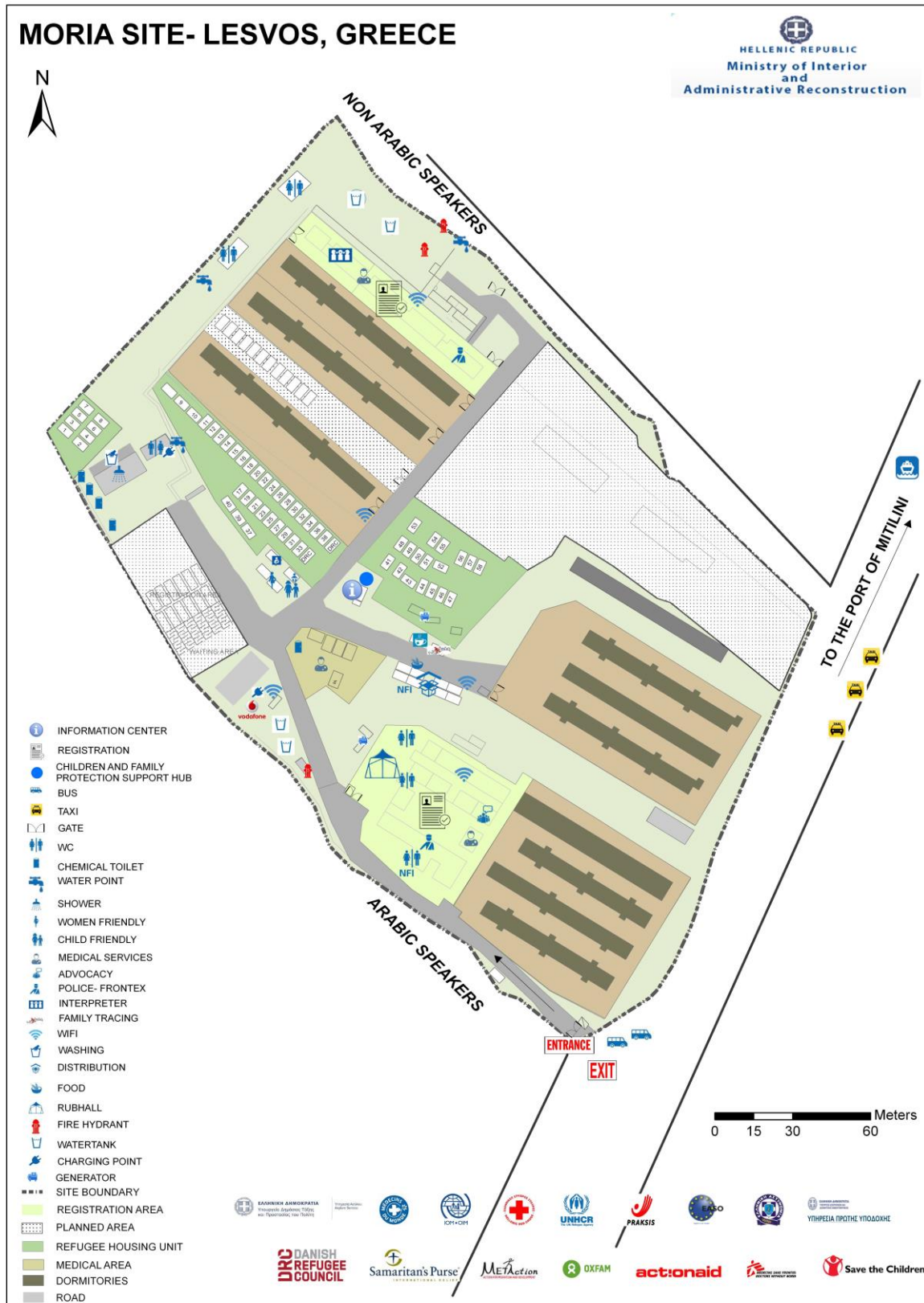
Background info on flora and fauna around the site

- Are there trees inside or around the refugee camp?
- Are these trees being cut for firewood?
- Do they use wood to keep themselves warm during the winter? Did they cut the trees or was wood provided?
- Are there other plants in the vicinity?

Information about the green project

- Location of project in the camp (What is the location where the initiatives are concentrated? Periphery? Inside? Near the admin?)/ if multiple : mention
- Name of project
- Initiator (person or organisation)
- Date of start
- Why did it start now and not earlier? What were the earliest signs of greenscapes in the area? How did it come about?
- Did you have a workshop with the volunteers before the program was started? How long was the workshop for?
- Types of crops grown
- No. of participants
- Who all participates?
- What are your opinions on paid labour for gardens whose produce is going to be used by them?
- If there is a garden, is it gendered space?
- Do you think the gardens are accessible to everyone? Or is it cordoned off for safety reasons? If you have other reasons, elaborate.
- Who is mainly working on it and are they incentivised/ paid?
- What is going to be done with the produce? Is it going to be sold? Or is it going to be consumed by whoever worked on the farm?
- Who does monitoring and evaluation?
- What are your long term strategies? Or 5 year plans?
- Who trained the NGO and the refugees for cultivation?
- Could there be any knowledge exchange between the refugees and locals? Would you be interested in creating a space for this exchange?
- What is the reaction of the refugees post initiation of the green initiatives?
- Are they enthusiastic about participating?
- How did you select the volunteers for this? Did they sign up?
- What are the tools you are supplying?
- And have the volunteers left the camp since?
- What would happen in the case people leave and new people come. How do you plan to deal with the transitionary population? How do you hope the knowledge transfer would take place?
- How did you calculate the area of cultivation? Was it by the amount of output you wanted? Did you have an aim to wean off aid by XX percent, so we need to cultivate XX in XX area.
- Where did the idea of the greenhouse come from?

III. Site plan of Moria

IV. Site plan of Kara Tepe