TOWARDS LONGTERM REFUGEE CARE: AN ADVOCACY FOR PERMANENT CAMPS AND HOUSING

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Introduction

The United Nations High Commissioner for Refugees (UNHCR), estimates in its most recent report that almost 66m people are displaced worldwide (UNHCR, 2017), of which roughly 21m are considered refugees (UNHCR, 2017), and over 40m are IDPs. IDPs are people uprooted within the borders of their own countries while refugees are those outside their countries (UNHCR, 2017). In each of the past five years, annual increases in the total global displacement arising from human-induced disasters such as conflict and persecution have been in the millions (UNHCR, 2017; Oloruntoba and Banomyong, 2018). Such enormous numbers of vulnerable displaced people requiring healthcare, shelter, sustenance, and protection have become problematic to efficiently and effectively manage within temporary camps. The problem of refugees and IDPs is a significant global problem that needs addressing. Hence, this paper raises the overarching research question: How can the supply chain logistics of care for refugees and IDPs be made more efficient and effective?

In order for humanitarian logistics and supply chains as well as refugee care to be more efficient and effective, this paper advocates for deployment and use of more permanent housing or permanent camps through long term planning. This paper contrasts and compares the short-term emergency approach to refugee and internally displaced persons (IDP) sheltering to longer term or permanent refugee and IDP settlement options. The rest of this paper is structured as follows:

Section 2 discusses the lack of universal definition of refugee as a precursor problem. Also, section 2 highlights key characteristics and features of temporary camps, and the logistics and supply chains that enable them as currently generally deployed. Section 3 briefly highlights how the research was conducted using content analysis of practitioner and academic literatures on refugee camps methods and why the method was deployed. Section 4 highlights current problems with the short term / temporary camp mindset and argues for longer term, more permanent structures in refugee care. Section 5 summarises and concludes the paper.

Refugee definition, funding and features of temporary camps

The refugee

The Geneva Convention established in 1951 that a refugee is a person who, because of well-founded fear of prosecution because of race, religion or political opinion is outside the country or nationality he or she has, while not being able to rely on protection of their country. Refugees have an international right to protection (Weis, 1954). However such a term is not accepted by some countries and governments who did not ratify the Geneva Convention. Such governments see refugees as guests or displaced persons thus they avoid legally binding responsibility as well as confer a temporary and insecure state of residence in the host country on such refugees, and this adversely affects every aspect of planning and management of refugees.

Donor funding

The cost of relief provision is rising at an alarming rate and many donors make pledges which they often never fulfil. Between 2004 and 2015 the total sum needed for humanitarian actions rose six-fold to $19,5 billion (Grubmuller, 2017) which the UN agency for peace building is convinced is not sustainable.9 This concern is exercerbated by economic problems regularly faced by multilaterial humanitarian agencies (e.g. UN agencies) and international humanitarian non-government organisations (IHNGOs). As a result, humanitarians often need to reduce their already low assistance of basic goods to refugees (Dunn, 2015). Hence, there is a need for a provision of more efficient humanitarian aid enabled by better planned logistical and supply systems.

Features of camps

There are multiple alternative interpretations of a refugee camp. A camp may be described as a city-like structure of temporary dwellings (e.g.tents), supplied by outsiders, or can be a settlement similar to an open village (Black, 1998). The UNHCR's Camp Management Toolkit differentiates

between planned camps and self-settled camps. Other types of temporary settlements are described as reception/transit centers, emergency evacuation centers, and collective centers (Camp Management Toolkit, 2015) Overall, the temporarity of a camp is derived from the temporary nature of the definition of a refugee. Ideally, a refugee camp is meant to provide a safe and healthy temporary residence, until refugees and displaced persons can return to their usual place of abode. A camp can only be a place, where it is possible to provide the refugees with necessary materials and services through key logistical services. This paper defines a refugee camp as a planned or self-settled place, which is supplied by outside helpers through the accessibility of logistics, with the goal to safely shelter refugees temporarily.

Through such camps, the UNHCR and host governments provide refugees and IDPs with food, water, shelter, sanitation, hygiene and other necessities. The UNHCR is mandated to lead and coordinate international action for the worldwide protection of refugees and the resolution of refugee problems as well as to ensure the well-being of refugees and internally displaced persons (IDPs). However, there are difficulties in achieving these laudable goals partly due to receiving countries handling the influx through the building of temporary camps, to seek centralised control over incoming populations (Huynh et al 2010). Indeed, over 40% of global refugees and IDPs live in over 1000 temporary camps around the world (Huynh et al.,2010)

Economics of relief in camps

The parts of humanitarian response that have a large impact on the economic performance of camps and the overall humanitarian effort for refugees include (1)food (2)water (3)sanitation, and (4)other complexities.

Food

The necessity of adequate food and nutrition for refugees is the first priority of survival, and the minimal requirements of food for refugees is defined as 2100 kcal per person per day. This ration is to be adjusted as the emergency develops. Despite this small personal food intake, there is an enormous logistics and economics effort required. For example, a camp of only 10.000 people requires more than 39 metric tons of food per week based on an intake of 2,100 kcal roughly equaling 560 grams) (Birkeland and Vermuelen, 2004). In short, minimal requirements for food equal a big financial and logistical involvement in transportation.

The World Food Program (WFP) is usually the lead organisation for procurement and delivery of food, and it is responsible for most of relief related food cargo transportation across the world (WFP, 2015). Food supply stays relevant in short- and long-term camp involvement. Food quality, food safety, and food allocation to displaced people is important as efficient, economic and reliable food supply are required goals.

Water

The necessity of potable drinking water (and sanitation) is just as important as food. Water is needed to preserve human life. Hence, an economical provision of water and related services to refugees (in camps) is necessary. There are health related risks, associated with the provision of drinking water. The minimal quantity of water required per person is according to UNHCR and USAID 15-20 liters per person per day, while additional water is needed for health centres. An urgent emergency is given, if the available quantity per person falls below 10 liters per day (UNHCR, 2007). The minimal provision of the recommended quantities for displaced persons results in a lot of logistical effort.

Sanitation

Like water, proper sanitation is crucial to preventing epidemics and illnesses (e.g. diarrhoeal diseases and cholera). Poor water quality causes diarrhea which results in malnutrition, a common cause of death in refugee camps for adults and infants.Sanitation has to do with the removal of waste materials. The management of waste and waste water needs to be handled (efficiently) in camp settings. Waste is defined as an unwanted object, not needed by the previous owner since it doesn't hold any value (Lemann, 2008) Like every community, a refugee camp produces waste, either in a solid form or in the form of waste water. Waste water is defined as any water discharged by human settlements because of contamination, with the distinction between black water (containing human excreta) and grey water (wastewater without excreta) (Singh, 2008) The problem of health risks through waste is often discounted and pit latrines dug for such wastes (Singh, 2008).

Other complexities

There are many stakeholders in refugee camp settings each with a different perspective and a different purpose. There are the (1)UN- agencies (2) the NGOs involved (3)the Camp Management

Agency (CMA)(4) host national and local governments, and (5) host communities and its private sector. Logistically, the CMA manages individual camps, including the assistance and assurance of well-being of displaced persons registered in the camp (Camp Management Toolkit, 2015). The CMA is also is responsible for allocation of services and facilities necessary to satisfy the provision of basic sustenance needs such as food and water.

Governmental approaches to the refugee situation, UNHCR, and camp management may differ. Host governments are responsible for refugees in their territory according to the UNHCR and Geneval convention. Hence, the UNHCR claims that a government, which hosts refugees, is accountable for keeping them safe and secure, while also maintaining order among them (UNHCR, 2007). This leads to an inconsistent situation when host governments who may not consider fleeing people as refugees giving unclear legal definitions or definitions that do not align with UN definitions, thus further exercerbating an already complex situation.

In summary, the building of camps in a host country in response to sudden large influxes of people may overwhelm and preclude any pre-existing planning system in place. Hence, a separation from local communities appears like the only option to governments in charge (Black, 1998). To open a camp, logistical access, water sources and distribution sites must be planned (Birkeland and Vermeulen, 2004). In addition, humanitarian work is subject to an unpredictable and fast changing environment. For example, uncertainty in demand and supply, short time frames for decisionmaking, and shortage of staff through fatigue.In short, the logistics and the supply chains are defined by the unknown in almost every respect (Van Wassenhove, 2006). The refugee camp environment is thus characterised by volatility, uncertainty, complexity, and ambiguity. Nonetheless, overall, the refugee camp serves multiple financial benefits such as centralization of needs therefore reducing the costs of distribution of relief.

Method

This is a conceptual paper that compares the often used short term temporary model of camp relief delivery structure and processes with the options of a more permanent longer-term care of refugees. While no primary data was collected, a review and analysis of a broad range of relevant practitioner and academic literature and reports by various IHNGOs and United Nations agencies 1998-2018 was undertaken through content analysis, and conclusions obtained.

Content analysis is a research technique used to make replicable and valid inferences through the interpretation and coding of textual material (Duriau et al 2007; Lincoln and Guba, 1985). Content analysis is the process of systematically evaluating texts such as documents, books, journal articles, written communication, and graphical illustrations (Duriau et al 2007; Lindkvist, 1981). Content analysis is used to interpret meaning from the content of text data and, as such, adheres to the naturalistic paradigm (Lindkvist, 1981). There are many variations in the use of content analysis as regards derivation of codes based on the purpose of the research, the state of science in the area of interest, and the nature of the research question (Hsieh and Shannon, 2005). In this use of content analysis, the author derived coding categories directly from the text data under analysis (Duriau et al 2007; Hsieh and Shannon, 2005).

The technique of content analysis has the advantage of allowing researchers to analyse socio-cognitive and perceptual constructs that are otherwise hard to study through conventional quantitative and archival techniques (Duriau et al 2007). The major advantage is that content analysis enables the collection and analysis of large samples of texts that may be hard to employ in purely qualitative studies such as narrative approaches, observation, ethnography, grounded theory, phenomenology, historical research, interviews or case studies (Duriau et al 2007; Hsieh and Shannon, 2005). As such content analysis is good for rigorous exploration of many significant but hard-to-study topics of interest to organizational and logistics researchers in diverse areas and disciplines (Duriau et al 2007; Hsieh and Shannon, 2005).

Examples of current problems with the short term / temporary camp mindset

Refugee camps are complex multidimensional situations, and the supply chains that serve them are extreme as regards uncertainty and risk (e.g. in funding, transportation, last mile distribution and sourcing). For brevity, I use a few examples (food inventory and quality, complexity of stakeholders, centralisation, sanitation) to illustrate the benefits of long term planning and permanent structures.

First, agencies such as the World Food Programme (WFP) often focus on short-term flexibility to cope with volatility in evolving situations through short-term planning and forecasts that are likely to be more accurate giving short term planning horizons. Appropriate supply strategies are often executed e.g. through WFP's network of global storage hubs (United Nations Humanitarian Response Depots) (UNHRDs) (WFP, 2015). These emergency warehouses, placed close to regions likely in need of relief, can supply potential disaster areas globally within 48 hours. The UNHRD stockpiles are the result of a

trade-off. While they are expensive to keep, the ability of instant relief of spontaneous demand is valued greatly (McCoy and Brandeau, 2011).

Second, this approach also reflects in the kinds of food purchased due to the necessity of short, streamlined supply chains for products that are perishable. Perishables are not compatible with uncertain storage time and sudden supply to spontaneous camps. For low costs, WFP claims to buy food stockpiles with regard to seasonality and savings through bulk buying (e.g. buying rice in bulk during the rice harvest season) (WFP, 2016)

Third, humanitarian actors often rely on the storage of their relief items to be able to provide them to people in need in the future. With WFP, logistics activity mostly comprises procurement of food, food logistics and transportation, and last mile delivery. To execute these core processes, WFP stores up to 1 million metric tons of food in warehouses across the world, thus bearing significant inventory costs in a bid to reduce costs and lead time (WPF, 2016). However, inspite of this, McCoy and Brandeau (2011) report long and variable lead times. They also argued that WFP stockpiles are not planned with analytics and decision support but are mere subjective approximations.83 Criticism on systematic inefficiency of the field of aid delivery has also been voiced by humanitarian actors (Oloruntoba and Gray, 2002).

Fourth, there are often multiple stakeholders and actors in refugee camp settings each serving different purposes (Kovacs and Spens, 2007). However, UN- agencies and NGOs often have a prominent and influential involvement in refugee camps (Rutinwa, 2017). The so-called Camp Management Agency (CMA) manages individual camps, and is responsible for the assurance of assistance and well-being of displaced persons at the camp level (Camp Management Toolkit, 2015). The CMA is responsible for the provision of basic needs, such as food and water, and allocates resources, services and facilities as necessary to satisfy these needs (Birkeland and Vermeulen, 2004).

The official UN Camp Management Toolkit states that the maintenance of camp infrastructure (e.g. roads and distribution sites) is the responsibility of the CMA as well as maintaining relationships with all stakeholders and agencies in the camp (Camp Management Toolkit, 2015) In theory, because of their responsibility for food provision and distribution, the most important agency in the refugee camp context is the UNHCR and the WFP. They are mainly funded by voluntary contributions of the member states of the UN.

The second most important stakeholder group is the host government involved as it is responsible for refugees in its territory. Specifically for keeping refugees safe and secure, while also maintaining order (UNHCR, 2007). Due to vague and inconsistent definitions, often, host governments do not consider people fleeing as refugees (e.g. in the case of Syrian refugees in Lebabnon). The difference in the UN's point of view and that of the host government thus blurs constituted roles and responsibilities, and often contributes to hindering possible solutions. The third most important stakeholder is the local government of the area the camp is situated in, the 'host' community and associated private sector in form of local markets and businesses (WFP, 2016). Hence, refugees are not only impacted by their flight, they are also impacted by multiple actors and stakeholders with different goals and motivations, resulting in complex multidimensional situations. Although the roles and responsibilities are clearly divided in theory, in practice they are often blurred and unclear (Grubmeller, 2017).

Fifth is the centralisation of camp logistics. A commonly used organisational tool of humanitarian aid is the refugee camp and associated logistical activities. A camp serves the centralisation of needs and scale economies (aggregation of people and their needs in one place) and therefore reduced cost of distribution of relief items.

The erection of camps in a host country is not always a conscious, planned, systematic or economical choice because sudden large influxes of people arrive and overwhelm almost every system in place. Thus, a separate system (or temporary camp) away from local communities appears like the only logical option to host authorities (Camp Management Toolkit, 2015). In order to open a new camp considerations often include logistical access, water sources and distribution sites.61 The environment is unpredictable, fast changing, uncertain in supply and demand, extreme time for decisionmaking, shortage of knowledgeable staff and so forth paint a picture of a hostile operating environment. Hence, the camp supply chain is defined by the unknown in almost every aspect (Oloruntoba and Gray, 2006; Olaogbebikan and Oloruntoba, 2017). It is characterised by volatility, uncertainty, complexity, and ambiguity (Grubmuller, 2017).

Sixth, as a response to uncertainty volatility, complexity and ambiguity, relief agencies tend to focus on getting short-term flexibility before an event occurs or in evolving situations i.e. contingency planning and the constant monitoring and analysis of high risk areas/countries (Grubmuller, 2017). The necessity of short-term planning means that forecasts in this short reaction time frame are more likely to be accurate than those made for the distant future. To reach people in need as quickly as possible,

as previously mentioned, a global network of storage hubs is used and run by WFP. These emergency warehouses, can supply potential disaster areas all over the world within 48 hours. The UNHRDs (United Nations Humanitarian Response Depots) include items (amongst others emergency food) for various humanitarian organisations (WFP, 2017). While such stockpiles are costly to keep, the ability of instant relief of spontaneous demand is valued greater (McCoy and Brandeau, 2011).

Seventh, the necessity for shorter supply chains for products that are perishable, is not compatible with uncertain storage time and sudden supply to countries in need (WPF, 2016). To provide food items efficiently, WFP purchases food in peak harvest time when supply is high through optimal contract modality deriving quantity savings through bulk buying (WPF, 2016). The efficiency of the supply chain methods is thus very important to such humanitarian organisations.

The specific setting of the refugee camp is impacted heavily by the flexible and short-term view of camps and relief aid taken by the whole humanitarian systems (e.g. UN agencies, donors, host governments, humanitaruian organisations, NGOs). The distribution of relief items is centralised and temporary given the nature of camps). The provision of food in camps is done in a centralised manner, in the center of the camp or at the edge of the camp, close to the entrance, to avoid food trucks hampering the camps' processes (Camp Management Toolkit, 2015). The same approach is used for water and sanitation. Such flexibility and short-term involvement of humanitarian aid is based on the short-term non-permanence of refugee camps just like the definition of the refugee. The ultimate goal is to close a camp upon completion of its purpose, aside from reasons of insufficient funds or security risks to relief workers. Camps close when either protection is no longer needed or there has been an agreement with the country of origin that guarantees a safe return (Camp Management Toolkit, 2015). Hence, agencies withdraw from the campsite/country leaving little, or no lasting structures.

Adverse economic effects of short term approach

While humanitarian aid is short-term, ad-hoc and flexible because of the sudden nature of disasters, there is inefficiency built into the process as a result. For example, WFP stores up to 1 million metric tons of food in warehouses across the world (WFP, 2016). McCoy and Brandeau (2011) argue that WFP and UNHCR are inefficient in their supply chain logistics because they have long and variable lead times and stockpiles not planed with analysing decisions but approximation.

McCoy and Brandeau (2011) also mention limited funding of agencies which results in a short funding horizon (sometimes only one month!) and minimal funding and operational/logistical considerations of the length of a crisis). As a result, humanitarian actors face economic challenges such as inefficiency in negotiating for shipping rates as they are often unable to secure long-term rates (since their long-term funding is uncertain) and therefore have less planning stability (Heaslip et al, 2012).

Another challenge is inadequate allocation of relief goods as a result of underfunding and inefficiency. Underfunding and inefficiency thus results in public criticism, which, in turn results in shortage of donor funding (Oloruntoba and Gray, 2009). Furthermore, as a result of the temporary nature of the current approach, indirect problems and supply gaps in disaster affected communities that outlive the immediate emergency situation can have severe long lasting consequences after the humanitarian operation has ended and the camp is closed (e.g. cholera in Zimbabwe and Haiti, with negative impacts on recovery and rebuilding and child abuse/rape in Congo and Haiti) (Oloruntoba and Banomyong, 2018)

A major economic challenge arising from such ad-hoc short term perspective to humanitarian aid and refugee camps is the organised private sector which is often minimally represented by a few selected vendors. Van Wassenhove (2006) thus argues that there is less drive in improving performance and evaluating past operations. Oloruntoba and Gray (2002) argued that variations in humanitarian field operations result in missed opportunities for transmitting logistical experiences from one event to another. As a result, it can be logically argued that is no development of lasting or resilient structures (Oloruntoba and Gray, 2002). Centralised food/water distribution in camps results in challenges and risks for refugees and IDPs. Food is often of insufficient quantity and quality because of the economic problems previously mentioned. Imported food may also be unfamiliar to refugees and to locals, which results in confusion about how to adequately prepare the food (Oloruntoba, 2005).

Additionally, a limited range of the diet (often rice) results in malnutrition and related diseases in refugee camps (Camp Management Toolkit, 2015). Storage of food in warehouses leads to massive presence of commuting food trucks in camps, and attendant endangerment and pollution (Camp Management Toolkit, 2015). Centralisation in distribution of food and water results in long treks for individuals to transport the water back to their dwelling, hence, burning up to one sixth of the calorie intake provided (given 80 litres transported over 200m and 2100 kcal) (Camp Management Toolkit, 2015). Refugees cope by using alternative possibly contaminated water close by, but is a risk to health (Camp Management Toolkit, 2015). Dug pit latrines common in camps often contaminate groundwater

resulting in cholera (Camp Management Toolkit, 2015).

Advocacy for a longer term perspective and more permanent structures

The current short term system of humanitarian aid provided in camps has major flaws and inefficiencies. Hence, I argue that (1) aid provision would benefit economically from a longer term view that involves (2) private sector cooperation. The requirement for quick action to save lives and appropriately designed supply chains for camps (or refugee settlements)is a necessity. It is noteworthy that the average time a refugee spends in a camp is approximately 12 years (Dunn, 2015). Camps are always planned with only short-term relief in mind, even though they usually exist for a long time (Van der Helm et al., 2015).

The post-emergency phase of camp life may be described as a camp's possible settling into permanence. Van der Helm et al (2015) and Van Wassenhove (2006) argue that in post-emergency settings, economical provision of aid becomes important. The time span of displacement and therefore an operational camp often outlives the crisis itself, since a return is often hindered by remaining weapons or absent infrastructure (e.g. Palestinian refugee camps opened in Jordan in 1948, and camps opened again in 1968 in Lebanon, Syria, the West Bank and the Gaza Strip. These camps contain the world's largest and oldest refugee population (UNHCR, 2017b). There are also Somali refugee camps in Kenya and Ethiopia opened since 1992 and the Mayukwayuka refugee settlement was established in Zambia in 1966 to host refugees fleeing from Angola's civil war (UNHCR, 2017b).

To provide aid economically, an adaption to the circumstances seems necessary. Although, response still needs to be fast and responsive to the volatile environment, this paper argues that prolonged refugee settings could benefit from inclusion of long-term planned measures. For example, having long-lasting fixed investments with high fixed costs and sustainable development view instead of short term immediate relief that could be financially optimized through longer involvements that reflect the camps existence.

First, the principle of a long-term approach has its origins in the economic concept of the breakeven point. Without delving into the breakeven concept, costs consist of fixed costs (unrelated to output of units) and variable costs (linear to unit output) (Sanders, 2012). Under the assumption that an investment such as infrastructure lowers the variable costs and that a long term involvement results in a high unit output, an initial significant investment becomes more economical the longer the crisis and attendant displacement lasts (Sanders, 2012).

Second, this longer term view will enable (a) the strategic decision of structuring the supply chain according to the humanitarian situation and (2) allow the improvement of the execution of delivery. The supply chain may be described as a string of processes, activities, operations and organisations through which a material passes before reaching its final goal, the customer (Waters and Donald, 2011).It is a "network of entities involved in producing and delivering a finished product (...)" (Waters and Donald, 2011). An effective and efficient supply chain must exhibit responsiveness, reliability and relationship management (waters and Donald, 2011).

Third, because of an uncertain demand meeting an uncertain supply (through funding insecurity or disruptions) an agile supply chain emerges (Oloruntoba and Gray 2006; Oloruntoba and Gray 2015). If supply can be provided in a more secure way, the supply chain becomes more responsive (Waters and Donald, 2011). To be responsive while still being economical, the private sector takes advantage of lean supply chain management principles which eliminates waste (e.g. excessive inventory or high lead times) and benefits value-adding processes. More precise timing of supply chain activities and cutting of wasted time will make the supply chain more efficient.

In camps, the peak consumption of water and food and unnecessary storage could be prevented through a lean approachment to the management of their supply chains. Lean management is enabled because of the longer term stability of the post emergency situation.

Fourth, a more economical supply chain execution may be derived from the practice of outsourcing less significant parts of supply chain performance to companies specialized in the field, resulting in a cheaper service through economies of scale (higher efficiency through size) and a larger geographic market, thus making it an attractive option for businesses in the host community. The provision of food in a refugee camp for instance may be outsourced, and the need for material handling equipment to move them (Luce, 2014). Third party logistics providers (3PL) can be made to guarantee specific service levels in legal agreements (Rodrigues et al 2018). Thus conferring supply chain reliability. Outsourcing may thus be described as a longer term supply chain management tool.

Fifth, supply chain relationship management and effective communication amongst the multitude of stakeholders in and outside the camp is required to respond effectively to the growing complexity of aid situations/relief camps (Balcik et al, 2010). The financial and coordination benefits of information sharing can be observed in commercial supply chain management. With better information

sharing and cuperior communications, lead times and inventories across the chain can be reduced, resulting in waste reduction.

Sixth, partnership with the organised private sector in host communities could provide resources to overcome the problem of financing fixed costs in infrastructure investments. The supporting role of the private sector is encouraged by UNHCR by e.g. including it in their futuristic vision. Public-Private- Partnerships (PPP) may be beneficial to the wellbeing of refugees, while also supporting the local host community (Stewart et al 2009).

The characteristics of successful business supply chains (responsiveness, reliability and relationship management) are achievable in the humanitarian aid sector through long-term measures, and investments in infrastructure can deliver more efficient aid and reduced supply chain risk.

Currently, the provision of only minimal standards of food consumption (2100 kcal) per day triggers enormous transport, storage and distribution activities within the camp. The emergency supply of non-perishable food (rice) does not include important vitamins and minerals that need to be consumed in a prolonged situation for health (WFP 2016). To give people the opportunity to obtain the food they need in a protracted situation, there are a range of food vouchers that could be used.

Seventh, rather than in- kind provision of food (rice) through WFP, vouchers can be distributed for food to be used in participating markets (even supermarkets inside refugee camps) (Oloruntoba and Gray, 2015). An electronic card that can be recharged regularly is more easy to use than a paper based system of vouchers (Sodhi and Tang, 2014). The economic benefits of voucher based food provision is generally acknowledged: i.e. price reduction of the products (Hidrobo et al. 2014). UNHCR also sees a benefit in the reduction of its logistics costs, as according to UNHCR, 98% of support reaches the refugees instead of being used for logistics (UNHCR, 2013). As regards supermarkets inside refugee camps, a physical infrastructure investment is given as well, which indicates the long-term approach to aid.

Eighth, the water sector in camps can clearly benefit from infrastructure. In short-term disaster situations, water is trucked to the people who are displaced. However, I argue for the construction of a pipeline network in camps to replace the truckingof water. Existing water infrastructure can also be expanded to camps.

Nineth, long-term measures in waste management of refugee camps involves garbage collection/recycling and adequate waste water handling. Instead of private latrines, integrated water and waste water infrastructure may be built. Hence, collection of household waste can be made economical (and ecological) in the long term through the principle of avoidance, minimization, recycling and environmental decontamination. Long-term waste handling can result in less exposure to health risks.

Tenth, as regards camp and settlement planning, the quickly realised grid planning as currently used in the short term view of humanitarian aid and refugee camps is less effective than the more sophisticated cluster approach to camp planning. Grid planning is not effective in growth, ecological issues or infrastructural usage. Cluster planning (more logical planned arrangement of elements) performs better in these fields and poses an objectively better long-term solution.

Summary

This paper has argued for a longer term perspective in the provision of humanitarian aid and in setting up refugee relief camps using several practical examples. The paper has responded to the question of how the supply chain logistics of care for refugees and IDPs can be made more efficient and effective through the humanitarian system taking a longer term view and making the appropriate investments that will deliver lean, effective and efficient supply chains on the long run. The paper advocated for deployment and use of more permanent systems through long term planning as well as longer term sustainable development rather than short term assistance

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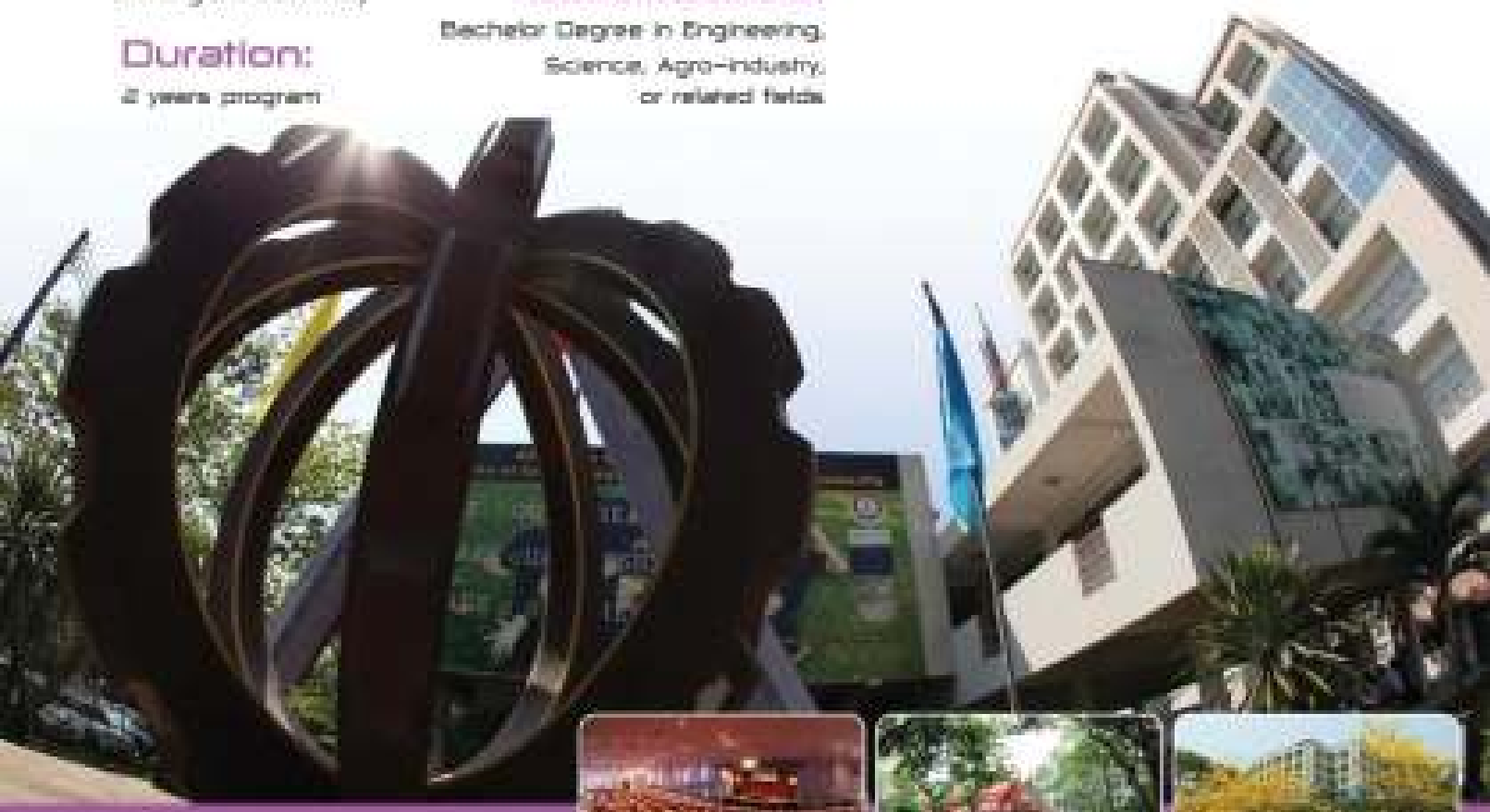

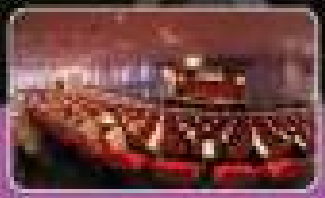

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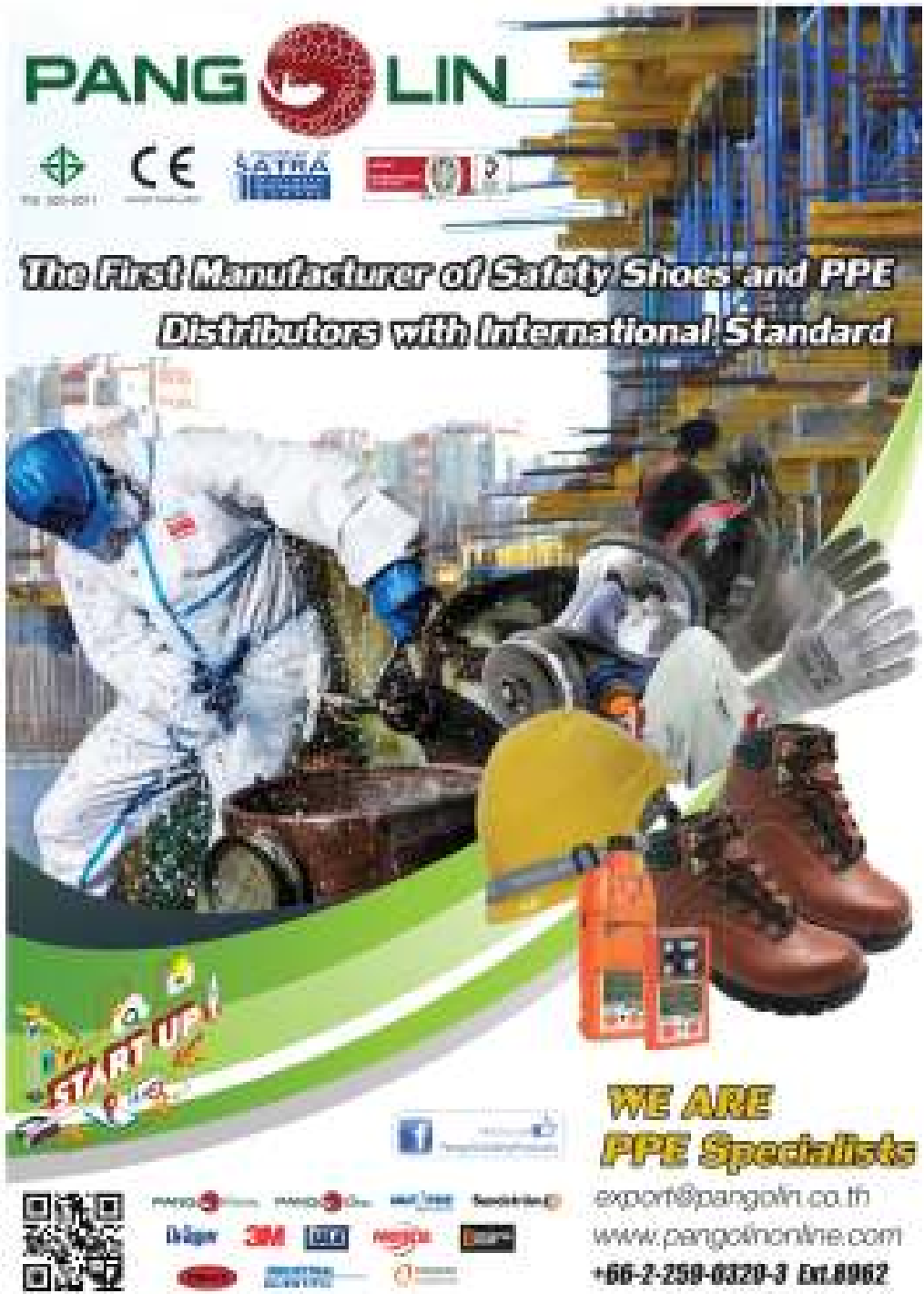
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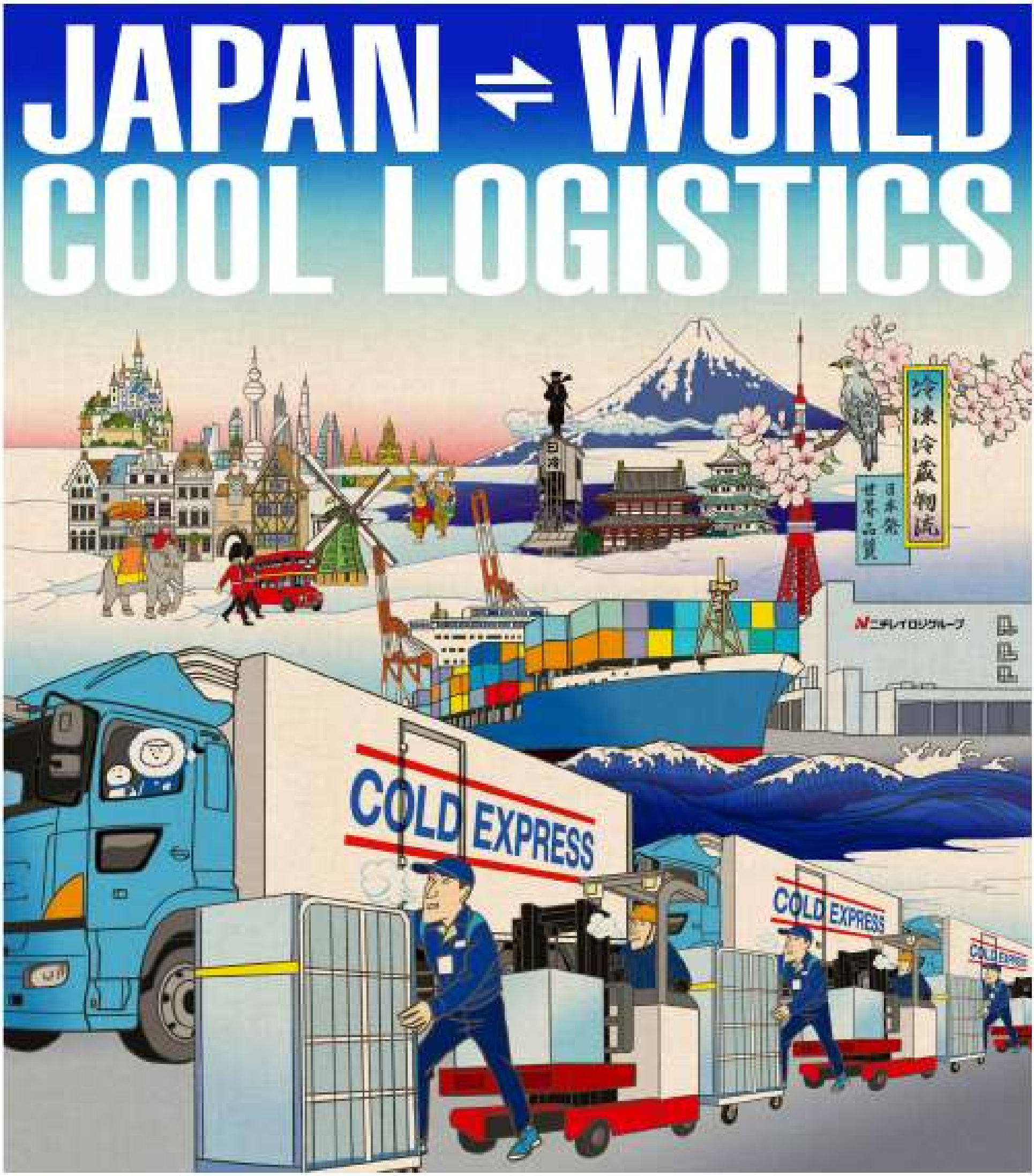

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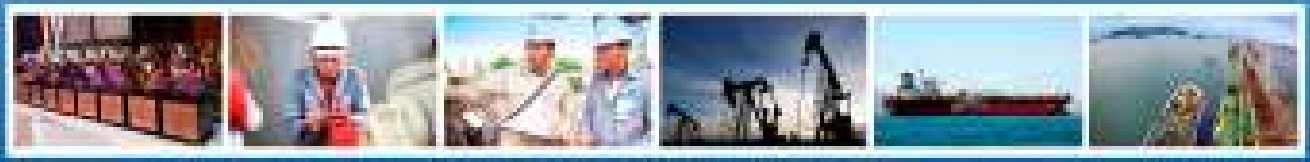

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