

**Sustainability in Times of Crisis:
Planning Disaster Responses Based on Scientific Data**

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Abstract

Sustainability is important in all aspects of human development and at all times, even in times of crisis. Therefore, countries need to make every effort to continue following Sustainable Development Goals even in times of disasters. It is well known that sustainability can only be achieved if policies and interventions are based on scientific data. In this respect, countries affected by any kind of disaster need to rely on scientific data for an effective and sustainable response, which should stand side by side with continuous developmental efforts.

Disaster responses need to be based on real needs of affected populations and real needs can only be assessed by collecting data, using the most convenient scientific methods. In doing this, combining quantitative data with qualitative data often gives the best picture.

Forced migration has been one of the most significant result of man-made disasters throughout history. Refugees and asylum seekers, who are among the most vulnerable populations, face challenges with respect to healthy living conditions, access to health care, social care, education and employment opportunities. The civil war in Syria, which started in 2011, have caused one of the biggest humanitarian crisis in the world and Turkey, as one of affected countries, hosts the largest number of refugees in the world. The response of Turkey combines governmental efforts with efforts of the universities, national and international NGOs as well as other international support. As part of the non-governmental response, a needs assessment study was conducted by collaboration of national NGOs (Community Volunteers Foundation and Yuva Association), UNFPA and academia. This mixed methods study was conducted in 2015-2016 in Hatay, which is one of the provinces with the highest per capita concentration of refugees in Turkey, and aimed to assess the current situation of young refugees for planning evidence based interventions with respect to health, education, employment and gender issues. The quantitative needs assessment included a household survey of 251 young refugees between the ages of 18-30 years and the quantitative part was combined with a qualitative photovoice study to have a more detailed picture of living as a young refugee in Turkey.

The findings of the study indicated that young refugees in Turkey are in need of multidimensional and multisectorial interventions regarding health, education, employment and gender issues. In this respect, health education and health promotion interventions on health and wellbeing, raising awareness on available health services, increasing access to essential medicines, interventions to reduce poverty related problems, increase access to healthy housing conditions, regulate working conditions and prevent unhealthy work environments, increase awareness on gender issues, decrease gender inequities and interventions aiming to decrease stigma and discrimination against migrants seem to be especially important for young migrants in Turkey. The scientific data driven from the study were used to develop specific interventions, that are tailored to the real needs of refugees,

that harmonize local youth with refugee youth, and aim to combine the current disaster response with the long-term sustainable development in the region.

INTRODUCTION

Three key elements underpin the concept of sustainable development: economic, environmental, and social well-being.¹ On September 25th 2015, countries adopted Sustainable Development Goals (SDGs), which are a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda.² Sustainability is important in all aspects of human development and at all times, even in times of crisis. Therefore, countries need to make every effort to continue following Sustainable Development Goals even in times of disasters.³

Studies indicate that disaster risk is on the rise throughout the world. The physical, social and economic losses caused by these disasters are particularly harsh for developing countries since they affect the sustainable development process.⁴ In return, lack of sustainable development makes a country even more vulnerable to hazards.⁵

Disaster management involves prevention, mitigation, preparedness, response and rehabilitation efforts. In short, such management stages can be classified into before, during and after event activities.⁶ Activities before disasters are already expected to be in line with SDGs; however, disaster response and rehabilitation phase can also include elements of sustainable development. Williams C. (2012) reported that sustainability should not be an afterthought — rather, it should be incorporated as a part of the emergency management community's best practices. In order for this to occur, we must change the way we think about sustainability.⁷

Societies looking for sustainable development are characterized as being resilient, responding in an organized manner and recovering more efficiently from a disaster. Incorporating risk management into the planning process allows those countries with public policies orientated towards development and growth to have a better chance of success than those which do not take them into account.^{8,9} In 2014, suggested guiding principles for the

¹ WSA Saunders and JS Becker. "A discussion of resilience and sustainability: Land use planning recovery from the Canterbury earthquake sequence, New Zealand". *International Journal of Disaster Risk Reduction* 2015; 14(1):73–81.

² "Sustainable Development Goals: 17 Goals to Transform our World", United Nations, accessed July 26, 2016, <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

³ "Transforming Our World: the 2030 Agenda for Sustainable Development." Resolution adopted by the General Assembly on 25 September 2015. United Nations General Assembly (A/RES/70/1), October 2015.

⁴ MM Rajeev. "Sustainability and Community Empowerment in Disaster Management". *International Journal of Social Work and Human Services Practice* 2014; 2(6):207-212

⁵ Adam Z. Rose. "Resilience and sustainability in the face of disasters." *Environmental Innovation and Societal Transitions* 2011; 1: 96–100.

⁶ Ibid, 2.

⁷ Charisma Williams. "Why emergency managers should focus on sustainability?" *Emergency Management*, July, 2012, accessed July 26, 2016, <http://www.emergencymgmt.com/disaster/Why-Emergency-Managers-Should-Focus-Sustainability-Opinion.html>

⁸ Ibid, 2.

⁹ Joaquin Toro. "Disaster Risk Management-Europe and Central Asia Region", Conference / meeting document, World Bank, 2014.

Hyogo Framework for Action included that “The sustainability of development depends on its ability to prevent new risk creation and the reduction of existing risk”.¹⁰

It is well known that sustainability can only be achieved if policies and interventions are based on scientific data. In this aspect, countries affected by any kind of disaster need to rely on scientific data for an effective and sustainable disaster response, which should stand side by side with continuous developmental efforts.

Disaster responses need to be based on real needs of affected populations and real needs can only be assessed by collecting data, using the most convenient scientific methods. In doing this, combining quantitative data with qualitative data often gives the best picture. Although there is extensive international literature on the need to use scientific methods to build evidence-based interventions in disaster responses, issues of sustainability in these efforts are rarely addressed.

Forced migration has been one of the most significant result of man-made disasters throughout history. Refugees and asylum seekers, who are among the most vulnerable populations, face challenges with respect to healthy living conditions, access to health care, social care, education and employment opportunities.¹¹

The migration flow that started in March 2011 as a result of the civil war in Syria has been described by the United Nations High Commissioner for Refugees (UNHCR) as the greatest migration wave seen in recent history. Since then, a great number of people have been displaced and/or been forced to flee their country. People fleeing from Syria have sought protection in five countries primarily (Turkey, Lebanon, Jordan, Iraq and Egypt). Among these, Turkey, with its open door policy since 2011, hosts the largest number of Syrian refugees.¹²

For centuries, Turkey has been both a destination and transit country for international migrants and migration flows were more or less stable, but the last migration wave included millions of migrants and therefore has led to a humanitarian crisis, where the needs of migrants surpassed available resources. According to data from Department General of Migration Management (June, 2016), there are 2,733,044 Syrian refugees in Turkey. Of those, 256,300 Syrians are residing in 26 temporary protection centres (camps) located in 10 provinces and nearly 2.5 million Syrians are dispersed in host communities in 81 provinces. It is worth noting that almost half (49.4%) of the Syrians (1,349,775 people) are children and adolescents (under 19 years old).¹³

In this crisis situation, the response of Turkey combined governmental efforts with international support as well as efforts of universities, national and international non-governmental organizations (NGOs). As part of the non-governmental response, a needs assessment study was conducted with the collaboration of two national NGOs (Community Volunteers Foundation and Yuva Association), UNFPA Turkey Office and academia.

While everyone is somehow vulnerable in disaster situations, some population groups such as children, young people, women, elderly, and people with disabilities are known to be more vulnerable than others. Therefore, the needs of these vulnerable groups should be

¹⁰ Ibid, 1.

¹¹ Ozge Karadag and Kerim Hakan Altintas. “Refugees and Health”. *TAF Prev Med Bull.* 2010; 9(1): 55-62.

¹² “World Migration Report”, International Organization for Migration, Geneva, 2015.

¹³ “Migration Statistics 2016”, Turkish Ministry of Interior, Department General of Migration Management, accessed July 30, 2016, http://www.goc.gov.tr/icerik6/gecici-koruma_363_378_4713_icerik

addressed more specifically.¹⁴ In this regard, the current study aimed to assess needs of young Syrian refugees with respect to health, education, employment and gender issues to develop needs-based interventions. This paper highlights the importance of using scientifically driven data in disaster responses and to continue development efforts even in times of crisis.

METHOD

This mixed methods study was conducted between December, 2015 - March, 2016 in Hatay, which is one of the provinces with the highest per capita concentration of refugees in Turkey. The study aimed to assess the current situation of young refugees for planning evidence based interventions with respect to health, education, employment and gender issues. Before data collection, official approval was received from the Ministry of Interior, and local authorities were informed about the study.

The quantitative needs assessment included a household survey of 251 young refugees between the ages of 18-30 years and the quantitative part was combined with a qualitative photovoice study to have a more detailed picture of living as a young refugee in Turkey.

The field work for the survey, which lasted for seven days, consisted of visiting all households and workplaces in the selected districts. In order to avoid selection bias, only one male and one female young refugee from each household or workplace were invited to take part in the survey. In total, 254 young refugees were contacted, where three of them refused to take part in the study. Finally, data from 251 young refugees were analysed.

The survey was conducted anonymously and contact details were provided for the participants to learn the results of the study. The participants were informed about the services provided at the community center for refugees and were directed to other services available within the region in case of identified need.

The field study was completed by five field workers including one supervisor, all of which were fluent in both Arabic and Turkish. Field workers received a one-day training including theoretical and practical sessions. The survey form consisted of 31 questions and face-to-face data collection lasted around 30 minutes for each participant. The survey form was pilot-tested during the field training and was revised according to the feedback received from both participants and the field workers.

Data analysis was completed using a statistical package program. After descriptive statistics, chi-square test and Fisher's exact test were used to compare groups, where p values lower than 0.05 were considered significant.

This study also included a qualitative part and used photovoice methodology, as one of the Community-Based Participatory Action Research (CBPAR) approaches. CBPAR has been recognized as an approach to conduct research with -rather than on- communities. It is a unique approach, which involves researchers, community and decision makers, and aims to combine research with advocacy and action for achieving change. As a practice based in the production of knowledge, photovoice has three main goals: i) to enable people to record and reflect their community's strengths and concerns, ii) to promote critical dialogue and

¹⁴ Ibid, 2.

knowledge about important issues through large and small group discussion of photographs, and iii) to reach policymakers to change policies and/or programs.¹⁵

In this respect, the qualitative part of this study aimed to have a more detailed picture of living as a young refugee in Turkey. The methodology involved reflection of problems through photographs taken by participants, followed by group discussions and production of advocacy materials and activities like photo exhibitions that brought together policy makers, service providers, civil society organizations, host communities as well as refugees themselves to achieve change through joint action. Qualitative data driven from this methodology were analysed using content analysis.

A note is to be made regarding the use of the term “refugee” in this paper. While Turkey has ratified the 1951 Convention Relating to the Status of Refugees, it limits its obligations under the Convention to refugees from events occurring in Europe. Legally speaking, people who originate from countries outside of Europe and seek asylum in Turkey are not named as refugees. Notwithstanding, Turkey has provided all Syrians with a special status known as ‘Temporary Protection’, which gives Syrian people free access to healthcare, education and employment opportunities. This paper uses ‘Syrian refugees’ to make it in line with international terminology and ease the reading. The ‘Syrian Refugees’ referred to in this document shall be understood as ‘Syrian people under temporary protection’.¹⁶

¹⁵ C Wang and MA Burris. “Photovoice: concept, methodology, and use for participatory needs assessment”. *Health Educ Behav.* 1997 Jun;24(3):369-87.

¹⁶“Temporary Protection Regulation”, No: 2014/6883 (in Turkish), October, 2015, accessed July 28, 2016, <http://www.resmigazete.gov.tr/eskiler/2014/10/20141022-15-1.pdf>

RESULTS

The quantitative study included 251 young refugees, where 54.2% were male and 59.7% were between the ages of 18-30 years. Most widely spoken languages other than Arabic were Turkish (27.5%) and English (27.1%) (Table 1).

The proportion of young refugees who were willing to continue their education was 52.2%, whereas only 3.2% were found to go to school in Turkey. Among the participants, the top four reasons for not being able to go to school in Turkey were i) economic problems (56.3%), ii) the need to work for earning money (33.3%), iii) language problems (15.9%) and iv) other obligations at home (15.9%). Of the participants, 53.0% were employed, where most of them were employed as factory/construction workers (28.0%), food industry workers (17.4%) or agricultural workers (16.7%).

Table 1. Frequency and percentage distribution of survey participants with respect to their sociodemographic features (Hatay/Turkey, Dec 2015)

Features	n	%
Gender (n=249)		
Male	135	54.2
Female	114	45.8
Age (years) (n=248)		
18-24	148	59.7
25-30	100	40.3
Marital status (Lifelong) (n=249)		
Married at least once	144	57.8
Never married	105	42.2
Civil marriage (n=67)		
Yes	41	61.2
No	26	38.8
No. of children (n=137)*		
0	22	16.1
1	58	42.3
2	26	19.0
3	20	14.6
≥4	11	8.0
Duration of residence in Turkey (n=248)		
First year	68	27.4
2 nd year	37	14.9
3 rd year	81	32.7
4 th year	52	21.0
5 th year	10	4.0
Spoken languages (n=251)**		
Arabic	251	100.0
Turkish	69	27.5
English	68	27.1
Kurdish	8	3.2
Other	5	2.0

*Out of married participants

**Column total exceeds 100.0% since some participants were multilingual.

A significant proportion of young refugees (70.2%) reported their willingness to attend vocational courses to have better employment opportunities. For nearly half of the refugees (45.5%), individual monthly income was below 500 Turkish Liras (below 150 USD) and 54.7% reported their economic status of households as either poor or very poor.

Nearly eight out of ten refugees (79.5%) reported their health status as bad or very bad, while 19.7% reported to have a chronic disease or health problem. Of the young refugees, almost half (46.4%) reported to have used at least one type of health service in Turkey, where the general satisfaction level was found to be high (86.8%) (Table 2).

Table 2. Frequency and percentage distribution of participants with respect to their perceived health status and utilization of health services (Hatay/Turkey, Dec 2015)

	n	%
Perceived health status (n=249)		
Very good	7	2.8
İyi	15	6.0
Medium	29	11.6
Poor	144	57.8
Very poor	54	21.7
Chronic disease/ health problem (n=249)		
No	200	80.3
Yes	49	19.7
Health problem (n=47)		
<i>Musculoskeletal system problems</i>	14	29.8
<i>Respiratory system problems</i>	7	14.9
<i>Chronic head ache</i>	5	10.6
<i>War wounds / bullet in the body</i>	4	8.5
<i>Skin problems</i>	4	8.4
<i>Eye problems</i>	3	6.4
<i>Psychological problems</i>	3	6.4
<i>Other</i>	7	14.9
Utilization of health care services in Turkey (n=248)		
No**	133	53.6
Yes	115	46.4
Service provider (n=98)*		
<i>State hospital</i>	73	74.5
<i>Syrian hospital (Orient)</i>	15	15.3
<i>Family health center</i>	8	8.2
<i>Private physician</i>	4	4.1
Satisfaction with service provided (n=106)		
<i>Satisfied</i>	92	86.8
<i>Not satisfied</i>	14	13.2

*Column total exceeds 100.0% since some participants visited more than one health care provider.

**Barriers for access to health care were reported as economic problems (10 refugees), lack of information on available health services (5 refugees), long working hours (3 refugees), language barriers (2 refugees) and other barriers (3 refugees).

According to the participants, the top health priorities for young refugees were psychological problems (34.1%), upper respiratory tract infections (24.4%), hypertension/cardiac problems (19.9%) and musculoskeletal problems (17.0%). The top three expectations with respect to the current health services in Turkey were i) access to free or low cost medications (45.2%), ii) the migrant health centers to be more widely available (17.6%), and iii) the physicians to better understand and respond to the problems of refugees (13.1%) (Table 3).

Table 3. Frequency and percentage distribution of participants with respect to their perceived health problems and expectations regarding health care services for refugees in Turkey (Hatay/Turkey, Dec 2015)

	N	%*
Perceived Health Priorities for Young Refugees (n=176)		
Psychological problems	60	34.1
Upper respiratory tract infections	43	24.4
Hypertension / Cardiac diseases	35	19.9
Musculoskeletal system problems**	30	17.0
Cancer	17	9.6
War wounds / loss of extremities	14	8.0
Diabetes	14	8.0
Dental problems	14	8.0
Stomach problems	14	8.0
Lung diseases	13	7.4
AIDS / STIs	12	6.8
Skin problems	10	5.7
Other***	22	12.5
Expectations Regarding Health Care Services in Turkey (n=199)		
Access to free or low cost medications	90	45.2
The migrant health centers to be more widely available	35	17.6
The physicians to better understand and respond to the problems of refugees	26	13.1
Expanding the scope of health care services (preventive-curative)	19	9.5
Translators	10	5.0
Psychological support	10	5.0
Living in clean environments and in good conditions / nutrition support	9	4.5
Prioritization of children	6	3.0
Cash and in-kind support	6	3.0
Accessible/ nearby health centers	6	3.0
Provision of medical supplies, wheelchair etc.	5	2.5
Improvement of working conditions / occupational health	5	2.5
Solving the problem with identification cards	5	2.5
Do not know	9	4.5
Other	15	7.5

* Column total exceeds 100.0% since some participants gave more than one answer.

** Back and waist pain, pain in the extremities, joint pain, muscle pain

*** Blood disorders, childhood diseases, poisoning, tobacco use, kidney diseases, allergies

Of the participants, 15.1% reported to face some form of stigma and/or discrimination while in Turkey. Out of the reported cases, the most reported negative experiences were street harassment / physical violence (64.7%) and being disliked, accused or mocked by the locals (38.2%) (Table 4).

The qualitative findings showed that young refugees face language, economic, social, cultural, educational and stigma-related barriers, as well as problems like inadequate sources of information and lack of awareness among service providers on specific needs of refugees.

DISCUSSION

This study was a mixed methods study to assess the needs of young refugees with respect to health, education, employment and gender issues in Turkey. The findings of the study, which was conducted with young refugees aged 18 to 30 years in Hatay, indicated that refugees face serious problems regarding health, education, employment and gender issues and that there are significant differences between the challenges faced by refugee women and men.

The findings showed that refugees and their families have significant economic problems; more than half of the young refugees would like to continue their education, but cannot go to school mainly due to economic problems; more than half of the young refugees work as labourers; and that seven out of ten young refugees would like to receive vocational training in Turkey. Young refugees' perceived health status were generally very poor and one out of five young refugees had a chronic health problem. Although general satisfaction with health care services seemed high, there were significant problems, especially with access to medication. Young refugees' awareness and knowledge on available services were inadequate. Nearly one out of seven refugees reported to have experienced some form of stigma or discrimination in Turkey.

The findings of this study needs to be interpreted by taking into consideration both the strengths and limitations of the study. One of the limitations was that the study had a descriptive nature and did not necessarily represent all young refugees in Turkey. On the other hand, the study had a mixed methods approach, which included data collection and analysis methods that were complementary.

Using qualitative methods is especially important in as sense that qualitative research seeks to understand a given research problem or topic from the perspectives of the local community it involves. This kind of research is especially effective in obtaining culturally specific information about the values, opinions, behaviors, and social contexts of particular populations and can sometimes be more helpful than quantitative research when dealing with development and sustainability issues. When used along with quantitative methods, qualitative research can help us to interpret and better understand the complex reality of a given situation and the implications of quantitative data. For instance, another mixed methods study by Erdogan M., et al. (2014) on the social acceptance and integration of Syrians in Turkey revealed that despite the occasional negative attitudes, the level of general social acceptance was unusually high for Syrians in Turkey. The study, however, concluded that this social acceptance may not be open-ended, infinite and sustainable in its current form. The same study revealed that there was a huge cultural gap between Turkish society and Syrians and therefore, it is of utmost importance to gather more data through scientific methods and base policies on such knowledge. The report concluded that considering many

Syrians are going to stay in Turkey permanently, policies of integration should start synchronously.¹⁷

In summary, sustainability in disaster situations can only be achieved through continuous and close monitoring of certain indicators, such as social indicators, economic indicators, health, education and gender related indicators to be able to plan ahead and act in a timely manner. In doing this, intersectoral collaboration is of utmost importance.

In line with the above discussion, the findings of the current study indicated that young refugees in Turkey are in need of multidimensional and multisectorial interventions regarding health, education, employment and gender issues. In this respect, health education and health promotion interventions on health and wellbeing, raising awareness on available health services, increasing access to essential medicines, interventions to reduce poverty related problems, increase access to healthy housing conditions, regulate working conditions and prevent unhealthy work environments, increase awareness on gender issues, decrease gender inequities and interventions aiming to decrease stigma and discrimination against migrants seem to be especially important for young refugees in Turkey.

Community involvement, on the other hand, should be an integral part of all the above-mentioned interventions for the response efforts to be successful and to combine with sustainable development efforts in the long term. Community involvement is usually described as the involvement of individuals/communities in planning, implementation and evaluation of policies and practices.¹⁸ Many programs implemented by governments and non-governmental organizations have been found successful during the initial phase of disaster responses, but their success were found to gradually decrease as time passes. There can be many reasons for this phenomena, however, lack of effective participation and capacity building of the affected communities remains a major factor for lack of sustainability.

In the past, top decisions came from higher authorities based on their perception of the needs, where the affected communities served as mere “victims” or receivers of aid. This approach was found to be ineffective, because it failed to meet the real humanitarian needs. Therefore disaster management efforts should focus on individuals and communities and be sustainable. People need to be involved from the initial phase of responses and continue to be involved in later stages including the long term development efforts.¹⁹ Photovoice, as a CBPAR methodology, enable researchers, community, and policy/decisionmakers to work in a collaborative manner to achieve social change through photography. Therefore, photovoice, as well as other CBPAR approaches, can be used more widely in disaster research, especially among more vulnerable/disadvantaged groups as an empowerment and advocacy tool.

CONCLUSION

In conclusion, scientific data driven from this study were used to develop specific interventions, that were tailored to the real needs of refugees, harmonize local youth with refugee youth as well as empower both refugee and host communities in Turkey. The main aim of the interventions was to combine current disaster response with the long-term integration efforts and sustainable development in the region.

¹⁷ “Syrians in Turkey: Social Acceptance and Integration Research”. Hacettepe University Migration and Politics Research Center, Ankara: HUGO Publications, 2015.

¹⁸ *Ibid*, 2.

¹⁹ *Ibid*, 2.

Despite large scale global efforts, issues concerning refugees and asylum seekers will continue to be among the most significant global challenges as a consequence of increasing inequalities, conflicts and climate changes in the world. Therefore, governments, nongovernmental organizations, universities and other actors need to continue to find new resources, invest in research and scale up their efforts both at the country and global level for disaster responses to be integrated with sustainable development efforts in the long run. It is of utmost importance to decrease the burden of disasters, including the burden of humanitarian crisis through increased research, which should aim to combine early phase disaster responses with long term sustainable solutions.

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