Fighting Hunger Worldwide

Basic Needs Programming in Turkey

Establishing Targeting Criteria and a Minimum Expenditure Basket

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Cover Photo: WFP/Berna Cetin

This mission and subsequent analysis took place in March-April, 2016. In the following months, substantial additional analysis and consultations have led to further refining of both the Minimum Expenditure Basket and the proposed targeting criteria. As such, the contents of this report may not reflect the most up to date technical work of WFP Turkey and partners.

Executive summary

WFP is scaling up its operations from 70,000 to at least 585,000 off-camp refugees in Turkey. The purpose of the report is to give recommendations on (1) targeting for the scale-up; (2) determining the transfer value for food needs; and (3) establishing a minimum expenditure basket (MEB) to inform programming for a potential basic needs approach.

Based on the secondary data analysis and literature review, the recommended vulnerability-based targeting approach is based on a two-stage process: prioritizes the locations; and within those, identifies the most vulnerable households based on three concrete demographic criteria.

Of the approximately 2.7 million registered Syrian refuges in Turkey, 80 percent are concentrated in 10 out of 81 provinces and 95 percent in 20 provinces. Scaling up of WFP assistance is recommended to prioritize the four southern provinces of Gaziantep, Hatay, Sanliurfa and Kilis. They host 45 percent of the refugees, rank low in the national well-being index and have WFP presence. Starting the initial scale up in those provinces will help test demographic patterns (refugee presence) and optimize resources by concentrating on areas where refugee numbers are the highest. The three demographic criteria proposed are extreme vulnerabilities, dependency ratio and length of stay in Turkey. These criteria will not capture all the vulnerable households. For this reason, proxy "economic" indicators such as housing characteristics will have to be introduced into the verification exercise (e.g. square metres occupied by household and amount of rent paid). A referral system will also be needed for the most destitute.

A major challenge for the targeting is that roughly 30 to 40 percent of the households are registered on several household numbers in the registration database. Making verification a prerequisite for applying for assistance is recommended. WFP should work closely with partners and other UN agencies to empower the Directorate General of Migration Management, the Ministry of Family and Social Policy and the Turkish Red Crescent during the process.

Given that the harmonisation of the food reference basket was an audit recommendation for the Syrian refugee operation, a change of the reference basket is not recommended. Price-monitoring exercises reveal that the current value of TL 62/cap/month is appropriate thus far but should be monitored closely. This value might have to be re-evaluated based on the incoming post-distribution monitoring data for off-camp refugees.

In establishing a MEB, the starting point is to value an explicit bundle of foods typically consumed by the poor at local prices (i.e. WFP's reference basket) and then add a specific allowance for non-food expenditures, consistent with the spending by the poor. Given that needs of a household grow with each additional member but, due to economies of scale in consumption, not in a proportional way, MEBs are typically defined by household size. Analysing pre-assistance baseline data collected by WFP shows that households on average spend 36 percent on food, 33 percent on rent and 31 percent on other expenditures. This gives us a MEB of TL 178/cap/month for a five-person household. Comparisons with MEBs for Syrian refugees in Jordan and Lebanon and for Turkish citizens confirm that these estimates are low but fairly similar in the spending categories on food and non-food. Post-distribution monitoring data will be an additional useful source of information to adjust the value if needed.

Background

In view of the increased attention on the needs of the Syrian refuges in Turkey, WFP will scale up the current WFP/Turkish Red Crescent operations from 70,000 to at least 585,000 off-camp refugees. WFP is also preparing for a refocus of the assistance from restricted to multipurpose cash as a result of a desire from the government and other stakeholders to move to a basic needs approach. Developing a common aid delivery system with an integrated basic needs response requires a high level of coordination across sectors and actors. Relevant Turkish authorities need to be fully associated from the start with any such scheme, as currently under development between WFP and the Turkish Red Crescent (TRC). Other organisations such as specialized UN agencies and (I)NGOs must also have a key role in beneficiary identification, targeting and monitoring. The basic needs package should be determined by the minimum expenditure basket while targeting should be based on an assessed vulnerability framework.

Objectives and methodology

Given the aim to scale-up and refocus WFP assistance, the purpose of this report is to give recommendations on 1) targeting for the scale-up; 2) the transfer value for food needs by revisiting the reference basket and its cost; and 3) explore ways to establish a minimum expenditure basket (MEB) for a basic needs approach.

Several data sources are used to establish vulnerability criteria, revisit the reference food basket and explore ways to define a MEB. Basic information about refugees and their location are obtained from the registration data collected by the Directorate General of Migration Management (DGMM). Household level data on the Syrian refugees are based on a WFP pre-assistance baseline survey (PAB)[1] and a so called "short form"[2] used for assessing household needs by WFP and TRC for the first off-camp caseload. These datasets cover populations from the five provinces where WFP is currently active. Vulnerable households are over-represented in the datasets. In addition, the analysis draws on price-monitoring data collected by WFP and data available from the Turkish Statistical Institute. The study also relies on information collected through discussions with WFP staff, field monitors, NGOs and other key stakeholders.

This report starts by discussing the current refugee situation in Turkey, including most recent figures, geographic distribution across the country and an overview of their food security and poverty situation. Then a brief review of the structure of social assistance in Turkey is provided. The next section highlights the limitations of WFP's current targeting approach and recommends amendment for the planned scale-up. The current reference food basket and its cost are then revisited and different approaches to set a MEB are presented. The study ends with recommendations on the way forward.

Syrian refugees in Turkey

According to the DGMM data from May 2016, Turkey is host to 2.7 million Syrians refugees. Of these, 80 percent are concentrated in 10 out of 81 provinces and 95 percent in 20 provinces. As the crisis approaches its sixth year, 269,150 refugees reside in 25 camps,[3] while the majority live within host communities in mostly urban areas in the southern parts of the country. Turkey has implemented a temporary protection regime since June 2011 granting Syrians access to basic services such as health care and education. The country changed its Syria visa policy to curb illegal entries, while still

[1] The survey was undertaken by WFP June- October 2015 and included a sample of 1563 households.
[2] The short form includes approximately 22,000 households.
[3] DGMM website, 12 February 2016

maintaining an open door policy.[4] As of January 2016, Syrians are allowed to apply for work permits. However, since the informal employment sector in Turkey is large, the law change is not expected to increase the number of formally employed Syrians dramatically.

The Turkish Government has been recording refugees since 2012, naturally not being able to foresee the proportions that the crisis would take. Provinces have had uneven capacity to cope with the registration burden, resulting in some inconsistencies in the database. It is estimated that in roughly 30 to 40 percent of registered households, members may not have been registered under the same household number as they have arrived in Turkey or registered at different times.[5] Also, a lot of refugees have moved from or within Turkey, making both aggregated and provincial numbers uncertain. In principle refugees should reregister in the provinces where they currently live to maintain access to services, but this rule has been unevenly implemented. Thus, current figures and simple statistics on Turkey's refugee population should be used and interpreted with care.

Table 1 shows the top ten provinces in terms of refugee numbers as reported by the DGMM. While seven of the ten provinces are located in the south of the country close to the Syrian border, three are located in the west. The southern provinces are the ones that rank relatively low in the national well-being index[6] while the western provinces rank relatively high.

Table 1 Top ten provinces in terms of refugee numbers and rank in national well-being index

Province	N of refugees	Rank in national well-being index (out of 81)*	WFP presence
Sanliurfa	399,208	73	Yes
Istanbul	392,642	5	
Hatay	383,660	64	Yes
Gaziantep	323,687	60	Yes
Adana	150,835	61	
Mersin	139,363	59	
Kilis	128,488	67	Yes
Mardin	97,383	80	
Bursa	97,212	19	
Izmir	91,385	21	

* While this ideally would use poverty rates, these are not available on province level.

The WFP PAB survey undertaken in June to October 2015 in the southern provinces of Hatay, Kilis, Gaziantep and Sanliurfa, hosting almost half of the Syrian refugees, sheds some light on the situation of the Syrians in southern Turkey. Thirty percent of households are food insecure and 66 percent vulnerable to food insecurity. The distribution of food insecure households varies across provinces: higher rates of food insecure refugee households are observed in Sanliurfa (43 percent) and Hatay (38 percent) compared to the two other provinces. Measured by a consumption-based poverty line in

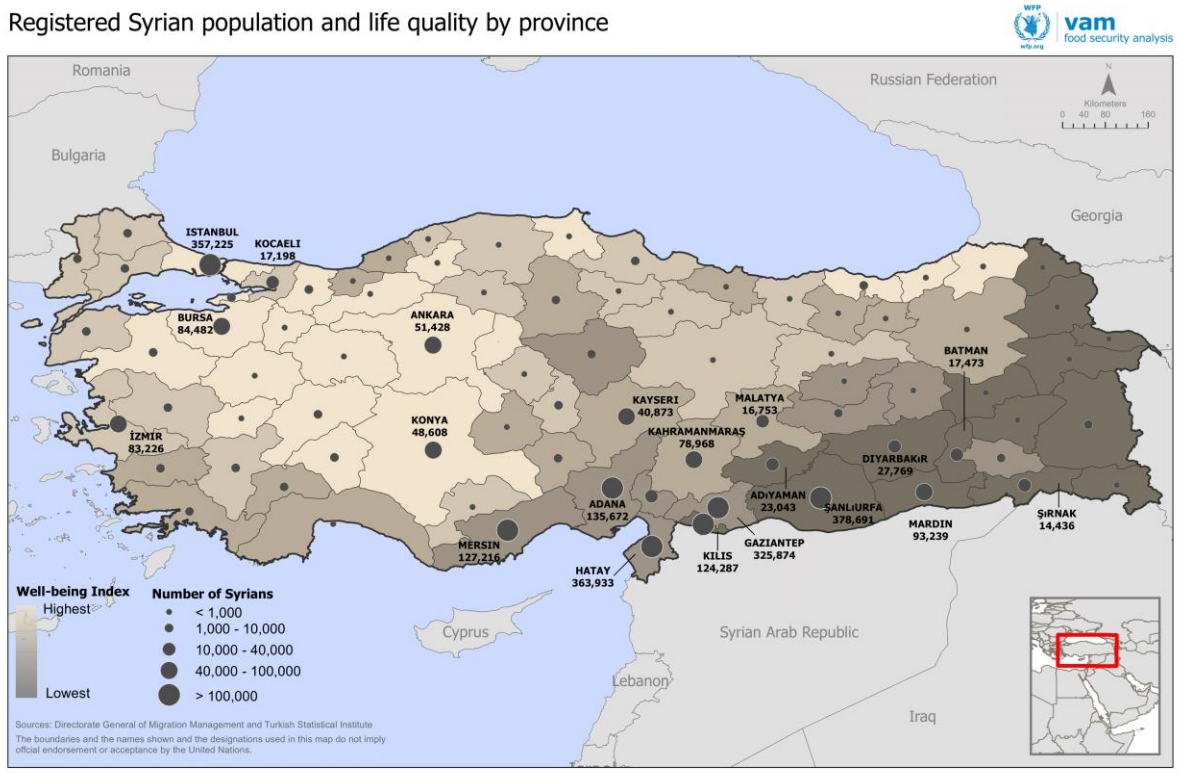
[4] Source: http://reliefweb.int/sites/reliefweb.int/files/resources/WFP_TR_OIM%20Country%20Brief%202016%20January%20FINAL.pdf

[5] This estimate is based on discussion with WFP field monitors, DGMM and comparisons between the short form and the PAB data in terms of registered and real household composition.

[6] The well-being index includes 11 dimensions: housing, work life, income and wealth, health, education, environment, safety civic engagement, access to infrastructure services, social life and life satisfaction. It is based on various data sources.

Turkey, 19 percent of the households are below the food poverty line and as many as 93 percent of interviewed households below the complete poverty line. As a comparison, the last time this poverty line was used in Turkey (in 2009), 0.5 percent of the Turkish citizens were under the food poverty line and 18 percent under the complete poverty line.[7] The survey also finds that more than 80 percent of the interviewed households have at least one working member, out of which only 16 percent are employed regularly. In other words, most refugee households rely on incomes from seasonal/irregular employment.

Figure 1 Registered Syrians in Turkey and Turkish well-being index



Social assistance in Turkey

Social protection entitlements in Turkey are divided into two exclusive categories: 1) social security entitlements for those working in the formal sector and 2) social assistance for all other categories. The social assistance consists of both centralised and decentralised schemes as shown in Table 2. Fragmented categories of assistance make it difficult to assess how much the poorest Turkish citizens actually receive as they may benefit from several schemes depending on income, presence of children, elderly, handicapped etc. Approximately 3 million Turkish citizens or 16 percent of the population benefit from at least some type of social assistance.

[7] This poverty line is used since a consumption-based poverty line is more reliable than an income based poverty line in a refugee setting.

Table 2 Social assistance schemes in Turkey

Central / decentralised	**Scheme**	**Frequency**	**Amount**
Centrally managed regular payments	Conditional health assistance for children in households with no regular income; conditional on regular health checks (no disability criteria)	Monthly	35 TL per child
	Conditional education assistance for children in households with no regular incomes; conditional on school attendance	Monthly	Primary school 35/40 TL Secondary school 40/60 TL
	Conditional pregnancy assistance	Monthly	35 TL/month during pregnancy, 75 TL one-time payment
	Widows assistance	Every two months	500 TL
	Army personnel assistance	Every two months	500 TL
	Disability assistance	Monthly	283/425 TL depending on disability
	Senior citizen assistance	Monthly	142 TL
Decentralised irregular payments	Food assistance	Twice a year	In-kind food worth 335 TL per household
	Heating assistance	One-off payment	Minimum 500 kg coal per household
	Shelter assistance	One-off payment	4556 TL paid on average per household for repair, rent, and appliances
	Education assistance	One-off payment	277 TL per household
	School lunch assistance		School lunch
	School books assistance	Every two months	Books
	Disabled children transportation		Cash

Source: building on work done by Umit Mansiz, WFP Turkey

An important element of the social protection system in Turkey is Soybis, an online platform of applicants of social assistance managed by the Ministry of Family and Social Policy, enabling different government agencies to assess eligibility and manage different schemes. Information such as incomes, taxes paid, vehicles registered, real estate ownership and access to different assistance schemes are registered here. Every application is checked against the information in this system.

One key eligibility criterion for social assistance among the poorest Turkish citizens is the minimum wage (also called minimum standard income) that recently was increased from TL 949/month to TL 1300/month. The so called G0 group are those individuals earning up to 1/3 of the minimum standard income while those belonging to the G1 group earn 1/3 to 1 of minimum standard income. The G0 and G1 groups are eligible for social assistance schemes provided to the poorest groups, such as irregular food assistance, heating assistance and shelter assistance.

The structure of the social assistance in Turkey has two important implications in the refugee context: 1) the targeting criteria for Turkish citizens cannot be transferred to the refugees since the very rich database that underlies the eligibility assessments is not available for Syrians; and 2) Syrians who access formal employment in Turkey will become registered in the database. The recent change in law gives Syrians an ID number starting by "99" as any other foreigner in Turkey. In principle this enables the Soybis and DGMM database to communicate with each other, which eventually can prove helpful for targeting. This feature is also useful if and when the refugee caseload is handed over to the government.

Vulnerability-based targeting of WFP assistance to Syrian refugees

Principles of vulnerability-based targeting

WFP is currently adapting its targeting approach corporately in response to a drastically changing refugee landscape globally. With unpreceded numbers of refugees - more than half of whom live out-of-camp in mostly urban or peri-urban settings - and a shift in focus from solely addressing food insecurity to covering basic needs, WFP is increasingly targeting its assistance to refugees based on assessed levels of household vulnerability, instead of refugee status alone.

WFP defines vulnerability as exposure to risk and the lack of ability to cope with its consequences. Thus, vulnerability-based targeting provides a principled and robust basis to identify and prioritize the most vulnerable and in greatest need of assistance. Vulnerability-based targeting is also sufficiently sensitive to strike a balance between meeting humanitarian needs and promoting self-reliance whenever appropriate and feasible.

The approach is based on a context-specific food security/vulnerability analysis (either quantitative, qualitative or a combination of both) that sheds light on the scope and depth of food insecurity/vulnerability. On the basis of the resulting vulnerability profile, proxy indicators are identified that best predict the level of food insecurity/vulnerability at household level. These indicators need to be validated in each context and be as observable and objectively verifiable as possible, so as to facilitate the actual identification of the eligible households. The process of identifying the eligible households is further facilitated, if the targeting criteria are based on information that is captured in the refugee registration database.

Checks and balances are required (e.g. complaints and feedback mechanisms in the form of hotlines, help desks, regular community meetings, etc.) to help in making the necessary adjustments and refine the targeting strategy if and when required. Similarly, given that the initially used targeting criteria may lose their relevance over time while vulnerabilities change and evolve, a clear monitoring plan is an essential element of vulnerability-based targeting that needs to be put in place.

Limitations of WFP's current vulnerability-based targeting approach in Turkey

Since July 2015 WFP has been conducting a joint door-to-door identification exercise with TRC. By February 2016, 22,000 refugee households had been visited of whom 18,000 were found eligible to receive assistance against the following six vulnerability criteria:[8]

[8] Source: Standard Operating Procedures for Household visits and identification of vulnerable Households, August 2015, WFP

HH demographics/Dependency:

- Female Headed Household
- Widow Headed Household
- Elderly Headed Household (60+ years of age)
- Child-headed Household
- Households with one or more person with chronic illness or disability that excludes work opportunity

Economic vulnerability:

- Households with a monthly per capita budget (based on the self-reported income) equal or below 62 TL[9]

Given that 83 percent of households visited matched at least one of the above targeting criteria, the current approach is too inclusive and not sufficiently robust for singling out the most vulnerable. In fact, the proxy for measuring households' economic vulnerability, was the most encompassing, with 81 percent of the sampled population found to be vulnerable. At the same time, this criteria is impossible to verify given that the monthly per capita income is self-reported. In other words, the likelihood of income being under reported cannot be ruled out.

Also, though a commendable achievement, it has taken WFP and TRC eight months to conduct 22,000 household visits across four provinces which is just about 19 percent of the total household visits required to reach the targeted 585,000 refugees (117,000 households) under the planned scale-up. With the current rate of 2,750 household visits per month, it would take 3.5 years to interview the households that are envisaged to be reached by the end of 2016. Similarly, while the costs incurred have not been calculated, it is safe to assume that the current means of identifying eligible households is not cost-efficient and not sustainable over time. In a WB/UNHCR evaluative study, it was estimated that each household visit in Jordan and Lebanon costs approximately USD 20.[10]

In sum, the planned scale up of assistance is calling for a revision of how to identify eligible refugee households. The limitations of the currently used targeting approach are as follows: (1) not sufficiently

[9] The monthly per capita budget of the household members is calculated by subtracting the amount of the rent and average fixed costs of 200 TL from the total income of the household and dividing the remaining amount by the number of family members: Income - rent – 200TL / HH members ≤ 62 TL → vulnerable; Income - rent - 200 TL / HH members > 62 TL → not vulnerable

[10] WB/UNHCR (2016. The welfare of Syrian refugees – Evidence from Jordan & Lebanon. https://openknowledge.worldbank.org/bitstream/handle/10986/23228/9781464807701.pdf?sequence=21&isAllowed=y)

discriminative in distinguishing between the various levels of vulnerability; (2) applies a proxy indicator for economic vulnerability that is based on self-reported income which has proven to be unreliable and in no way verifiable; and (3) operationally too challenging, time-consuming and costly.

Proposed vulnerability-based targeting approach for basic needs

The upcoming scale up demands a targeting approach that is operationally feasible, least time-consuming and based on vulnerability targeting criteria that can reliably identify those households in greatest need of assistance. In order to design a targeting strategy for basic needs, WFP focussed on both poor and food insecure households.

Since, according to the PAB data, poverty is widespread among Syrians (93 percent) targeting below the poverty line would mean a blanket approach. The rationale behind the recommended targeting strategy was to look at the poorest groups among the poor (the poorest quintile). These are below the food poverty line and also unable to cover their basic needs.

In settings like Turkey – with a large, sudden influx of refugees with numbers rising, the pressure to scale up assistance over a short period of time and the obligation to operate cost-effectively to ensure that limited resources reach those in greatest need – straight forward demographic criteria are strongly recommended for targeting. In fact, this suggestion is supported by the recent WB/UNHCR evaluative study on targeting Syrian refugees in Lebanon and Jordan. In this case, household size and paying rent/ owning the place in which the household lives, are key household level predictors of vulnerability/poverty of Syrian refugees in Lebanon and Jordan – while all other factors, with the exception of housing area per person (crowding index), were not proven to explain vulnerability/poverty to any large extent. The report recommends targeting refugee populations based on a "restricted number of indicators, irrespective of how the samples, questionnaires and data sets are constructed." Thus, time-consuming and costly household visits to measure income and expenditure and determine which households are and are not eligible for cash assistance must be avoided. The recommended approach is based on a two-stage process: at first it prioritizes the locations and within those, identifies the most vulnerable households based on three concrete demographic criteria.

To ensure fast and accurate identification of the most vulnerable refugee households, information for the three demographic targeting criteria should be recorded at the time of refugee registration. Given that DGMM's registration database does not consistently record household data, a verification exercise is strongly recommended to address the issues mentioned above and capture the necessary information for the proposed targeting.

Geographic focus

Scaling up of WFP assistance is recommended to start in the following four provinces: Gaziantep, Hatay, Sanliurfa and Kilis. They host the highest concentration of refugees (47 percent), rank low in the national well-being index and have WFP presence. Assistance should then be prioritized in the provinces of Istanbul, Adana and Mersin with over 100,000 registered refugees.

Starting in the provinces with WFP presence will ensure better operational coverage as the capacity is already on the ground. Additionally, it will help validating the number of refugees currently residing in those provinces. While the DGMM has been recording refugees since 2012, it is assumed that a large number may have moved outside Turkey or to areas further north, in particular to Ankara or Istanbul, possibly in search for better working opportunities. Limiting the initial scale up to those provinces will help test demographic patterns (refugee presence) and optimize resources by concentrating on areas where refugee numbers are highest.

The downside of limiting assistance to those five provinces in the beginning may be a slight risk of a "pull factor", whereby refugees may deliberately move to those areas in which assistance is provided. The only possibility to avoid a potential "pull factor" is to provide assistance nationally, ideally covering all 20 provinces with substantial refugee presence. This will require a consistent and rapid scale up of capacity, presence and operational coverage over time.

Household vulnerability characteristics

Based on internationally used vulnerability criteria and a regression analysis on the PAB data (see Appendix I), three concrete, objectively verifiable targeting criteria are considered to be the most straightforward predictors of poverty and food insecurity: (1) households affected by extreme vulnerabilities as detailed in Table 3, (2) dependency ratio and (3) the date of arrival in Turkey.

Extreme vulnerabilities (Table 3) are "universally accepted" targeting criteria and known to show a high correlation with food security and poverty. Pregnant and lactating women were included in line with WFP policy to reduce malnutrition within the first 1000 days. While this criteria cannot be based on the registration data, it can be verified when people register for assistance.

Table 3: Households affected by extreme vulnerabilities (EV)[11]

EV Targeting criteria	**Description**	**% HHs identified**
Female headed HH	Not accompanied by other adults (18-59yrs) and with at least 2 dependents	6.8%
Widow Headed HH	Not accompanied by other adults (18-59 yrs) and with at least 2 dependents (<18 yrs)	3.5%
Elderly headed HH	Not accompanied by adult (18-59)	2.2%
Child HHH	Unaccompanied children (<18 yrs) without adult (18-59 yrs)	0.3%
Pregnant and lactating women until the baby is 23 months[12]	Pregnant/lactating women with at least 2 dependents (<18 yrs) in the HH (medical certificate or birth certificate of the child needed to support application.	2.6%
All criteria combined		**11.8%**

NOTE: *Adults (18-59)* include male and female; *Dependents* include children 0 -17 yrs and people over 60 yrs.

[11] Except disabilities/chronic illnesses due to the inconsistent nature of how recordings were done in the DGMM.

[12] This is in line with WFP 1000 days policy

The dependency ratio is also widely recognized to be a predictor of poverty.[13] It is an age-population ratio of household members typically not active (the dependent part people aged between 0-15 years and above 60 years) and those typically active (the productive part people aged 16 to 59) in the labour force. While the dependency ratio in Syria before the crisis was 0.65, the average dependency ratio in the PAB data is 1.38. The World Bank/UNCHR report confirms that the Syrian refugee population is younger and has a larger share of young children that the pre-crisis population. In other words a deterioration has happened in the dependency ratio. The dependency ratio threshold of 1.5 was selected considering the current average dependency.

Poor households tend to have higher dependency ratios, a common rule that was found to be highly prominent among the Syrian refugee population: larger households have higher poverty rates and the poverty rates increase with every additional dependent. For example, households with dependency rate between 1.5 and 2, the food poverty rate stands at 16 percent, while HHs with a dependency rate higher than 2 the food poverty rate increases to 34 percent.

Thirty-three percent of households in the PAB database had a dependency ratio of higher than 1.5. When combined with one or a combination of the extreme vulnerability criteria (considering potential overlap), 37 percent of refugee households were selected (Table 4).

If, for operational or financial reasons, it may be necessary to reduce the number of assisted households, the ratio's threshold could be increased to 2 (i.e. two dependents per 1 potential working member) which would reduce the proportion of vulnerable households to 25 percent.

The scale up should cover all new arrivals by default. During the first six months after arrival, household vulnerability levels can be assumed to be particularly high, as refugees adapt to their new circumstances, trying to meet their basic needs, including food, shelter, health, education, etc. In fact, households that have been less time in country are more likely to be food insecure and poor. While 48 percent of those that arrived less than 6 months ago were found to be food insecure, the proportion drops to 30 percent of households for those that had been spending 12 or more months in Turkey. Also, with the new legislation, refugees can apply for a working permit in Turkey only if they have been registered for at least six months, so it is likely that recent arrivals face more difficulties is accessing employment.

This targeting criteria is easily applied and communicated to all stakeholders involved, including the refugee community itself. While the potential for inclusion and exclusion errors is inherent, verification is crucial starting from six months in country at which point households' vulnerability status need to be re-assessed.

The combination of the three vulnerability criteria provides the percent of households that could potentially be reached under the scale-up. Depending on available resources, the most appropriate and feasible targeting option can be applied (Table 4).

[13] Recently on the World Bank report "Welfare of Syrian refugees" household size and housing are *indicted as the best predictor of poverty. See:* https://openknowledge.worldbank.org/bitstream/handle/10986/23228/9781464807701.pdf?sequence=21&isAllowed=y

Table 4: Possible targeting approaches: Percent of HHs identified by each set of vulnerability targeting criteria

Combination of vulnerability-based targeting criteria	% of Identified households
All 5 EV criteria together	11.8
Dependency ratio (> 1.5)	33.0
Length of stay (< 6 months)	10.6
EV criteria + Dependency Ratio (> 1.5)	37.4
EV + Dependency Ratio (>1.5) + Length of stay (< 6 months)	44.2
Dependency ratio (> 2)	18.8
EV + Dependency ratio (> 2)	24.8
EV + Dependency Ratio (> 2) + Length of stay (< 6 months)	33.0

Source: Authors calculations based on WFP Pre-assistance baseline

Exclusion and inclusion errors

There are two types of errors in targeting: predict vulnerable as non-vulnerable (under-coverage rate or exclusion error); and predict non-vulnerable as vulnerable (leakage rate or inclusion error). The first type of error (exclusion error) is more problematic from the humanitarian perspective, while the second type of error (leakage) is more problematic from a budget perspective. An optimum set of criteria is to bring a minimum exclusion error for the poorest quintile and a smaller inclusion error among the better off.

Reasons for potential exclusion and inclusion errors are threefold in the context of Turkey: First, in the registration data captured by the DGMM, this analysis estimates that in 30 to 40 percent of the cases, family members are registered under different household numbers. This means that the demographic criteria, such as the dependency ratio, cannot be run against the database. A household may be officially registered as female headed but in reality have a husband registered on a different household number. Secondly, there is a risk that the three recommended targeting criteria do not capture all vulnerable Syrian households as vulnerability has many faces and may manifest itself differently between households. Thirdly, the most vulnerable of the vulnerable (i.e. the sick, chronically ill, etc.) may be (physically) unable to or too apprehensive to come forward to (re-)register and apply for assistance. A referral system is therefore also necessary.

The analysis was able to test the impact of exclusion errors based on the available data. Since such a large proportion of the households are poor or vulnerable in the PAB data according to different criteria, inclusion errors are harder to assess. The analysis tests the level of accuracy of the proposed sets of criteria in predicting the most vulnerable using the poorest quintile.

It is worth noting that the exclusion error for the bottom quintile is around forty percent when any of the sets of criteria are applied. Thus it is recommended that proxy "economic" indicators are introduced into the verification exercise. These could include housing characteristics e.g. square metres occupied by household, amount of rent paid, etc. A complex vulnerability assessment, measuring the FCS, expenditure, coping, etc., is to be avoided. It is also critical to set-up mechanisms for complaints/appeal for those who are excluded based on the criteria defined.

Revisiting current food basket and defining a MEB for Syrian refugees in Turkey

Current reference food basket used by WFP in Turkey

The current reference basket used of the WFP assistance in Turkey is shown in Table 5. This corresponds to the food basket agreed upon in October 2014 by the Regional Emergency Coordinator's Office and the country offices assisting Syrian refugees. The main changes in the reference basket in comparison with the previous one was the inclusion of eggs, cheese, and vegetables, while canned meat was replaced with fresh poultry. These changes reflected the actual purchase patterns as well as the availability of items in the host economies. The harmonisation of the basket across the countries assisting Syrian refugees was an audit requirement.

To be able to properly analyse what Syrian refugees actually consume would require detailed expenditure and consumption data, typically not collected by WFP. However, analysis of itemized receipts data from two contracted shops in Jordan accessed by the refugees give some insights of expenditure patterns. The data shows that eight of the eleven items in the reference basket are among the 15 top selling items (bulgur, pasta and salt are not). Top selling items missing from the reference basket are mainly dairy products (yoghurt, labneh, powdered milk) along with fresh meat, tinned fish, tea and coffee. While some adjustments could be made based on the purchasing patterns in Jordan, particularly regarding the amounts of cereal purchased, this decision has to be taken on a regional level. The revision of the reference basket is therefore not recommended.

Table 5: Daily ration (g/person/day)

Items	Grams	Kcal	Rank of item in shops in Jordan
Rice	150	540	5
Bulgur	200	680	
Pasta	50	186	
Pulses	40	142	14
Sugar	33	128	7
Veg Oil	33	284	2
Salt	5	0	
Poultry	30	43	3
Egg	19	27	4
Cheese	8	28	9
Cucumber	20	3	13*
Total		2060	

*vegetables (not specifically cucumbers) are aggregated to a top selling item

Source: Shop data from Jordan

Cost of current reference basket

The cost of the reference basket is currently set at TL 62 /cap/month. Since October 2015 WFP monitors the price of the items in the reference food basket in shops accessed by the off-camp population and a small number of control shops. In February 2016, 28 WFP shops were monitored. The price of the cheapest brand of any given item is monitored. According to the monitoring, the food basket value in February 2016 was TL 64.9 while it was TL 62.2 in the period from October 2015 to February 2016 (Table 6). The latter period is too short to detect any clear price trends although food is normally more expensive during the winter. An average is taken in order to even out any noise in the data.

Table 6: Price of WFP basket in off-camp WFP shops

Province	Average price of ref. basket Oct 2015 - Feb 2016	Average price of ref. basket Feb 2016	Kcal covered with 50 TL Feb 2016	Kcal covered with 62 TL Feb 2016
Gaziantep	61.1	62.7	1642	2036
Hataya	62.9	62.6	1644	2039
Sanilurfa	66.8	66.3	1553	1926
Kilis	58.2	72.1	1429	1772
Kahramanmaras		60.8	1693	2099
Average	**62.2**	**64.9**	**1592**	**1972**

Source: WFP shop monitoring

Because of lack of data for a longer period for the off-camp populations, it is useful to study price trends from other sources. Data from shops serving the camp population is available from January 2015. Studying the price series of these data suggest that prices indeed have been rising in late 2015 and early 2016. However, the value of the food basket was at TL 57 in January 2015 and at TL 62 in February 2016 indicating that the current market prices are closer to the reference basket cost. The Turkish Statistical Institute (TSI) also collects data on a number of commonly consumed food items. While the commodities are not exactly corresponding to the ones monitored by WFP, a WFP-like basket can be constructed from this data (excluding cheese and fresh poultry). Weighting the price trends by the importance of the commodities in the WFP food basket shows a year-on-year price increase of 4.4 percent between January 2015 and January 2016. The consumer price index for food and non-alcoholic beverages during the same period (February 2015-February 2016) increased by 8.83 percent. This is largely in line with the general increase in consumer prices that stands at 8.78 percent.

It can also be instructive to look at how much people report that they spend on food if they have an acceptable food consumption score. According to the WFP PBA data, while the per capita spending on food for those with an acceptable food consumption score is TL 72 /month, the median is TL 50 /month.

This analysis leads us to conclude that the current price of the food basket at TL 62 /cap/month is still acceptable. However, markets must be closely monitored. If and when the actual cost of food basket exceeds the current reference basket cost by more than 10 percent (higher than TL 68), it is advisable to increase the value. Table 5 also shows that with the current transfer size of TL 50 to off-camp refugees, approximately 1592 Kcal per capita per day are covered. Given the high food insecurity among the refugees, it is recommended that the actual transfer value is set at TL 62.

Basic needs of the refugees

The International Humanitarian and Human Rights Law protects crisis-affected persons' right to food, drinking water, soap, clothing, shelter and life-saving medical care. Humanitarian Sphere Standards define basic needs as the above plus basic water and sanitation, non-food items, contagious disease prevention and education.[14]

Services accessed by registered refugees living off-camp through the Turkish government include basic health and education services. To cover other basic needs, refugees engage in informal employment but as documented above, a large part of the refugees are poor and food insecure. As of January 2016, the refugees have the right to receive work permits. This should in principle entitle formally employed refugees to social security benefits (insurance, pension etc.). Whether or not that is the case remains unclear.

Minimum expenditure baskets: concepts and approaches

A Minimum Expenditure Basket (MEB) is defined as what a household requires in order to meet basic needs, on a regular or seasonal basis, and its average cost. As the World Bank Poverty Manual outlines,[15] the starting point for establishing a MEB is to value an explicit bundle of foods typically consumed by the poor at local prices and then add a specific allowance for non-food expenditures, consistent with the spending by the poor. The 'poor' are often defined as those close to or slightly above the poverty line. By doing so one avoids the use of expenditure patterns of those who do not have enough resources to live a dignified life. Adding a specific allowance for non-food expenditures is typically done by using the share of food in total expenditure to calculate the non-food component or by using the actual value of non-food consumption expenditures of the poor. Alternatively, a bundle of goods and services can be selected and priced. A combination of these approaches can also be taken. In refugee settings, specific basic needs are often distinguished because of sector-specific interventions.

The Turkish Statistical Institute used to report poverty figures based on a cost of basic needs approach but has recently moved to an income-based poverty line. The old approach was very much in line with the above and started by constructing a food poverty line based on the minimum caloric intake (2,100 Kcal per person). To determine the food basket that would deliver the required caloric intake, the consumption habits of a reference group corresponding to the consumption of the third and fourth decile groups of per capita food expenditure was used. The cost of the basket was calculated on the

[14] UNHCR, CaLP, DRC, OCHA, Oxfam, Save the Children, WFP: Operational Guidance and Toolkit for Multipurpose Cash Grants; see http://www.cashlearning.org/mpg-toolkit/

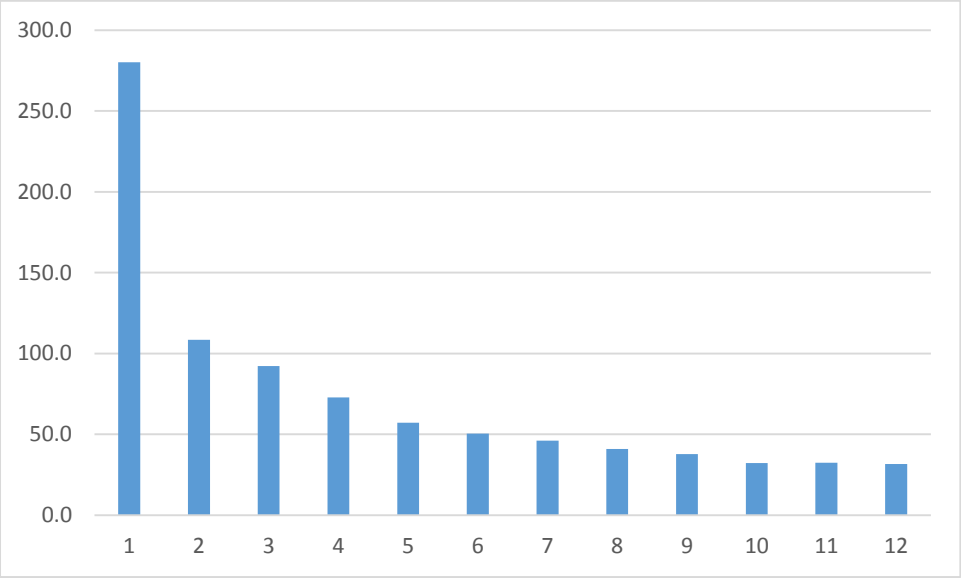
[15] See http://siteresources.worldbank.org/PGLP/Resources/PovertyManual.pdf

basis of the prices reported in the household budget survey. Once the cost of this basket was derived, the complete (food plus non-food) poverty line was derived by dividing the food expenditures by total expenditure of the reference group. The cost of the food basket was then topped up corresponding to the share that the households on average use for non-food expenditure.

While in non-crisis settings, the MEB is often established through household income and expenditure surveys, as in Turkey, refugee settings often call for consulting the affected populations themselves regarding their minimum expenditures requirements. Often two different MEBs are defined: a MEB and a survival MEB (SMEB). The former is the monthly cost per capita which allows a refugee to live a dignified life. This implies the full access to all rights and represents the minimum needed to lead a dignified life (outside camps). The latter is the monthly cost per capita which is the minimum needed for physical survival and implies the deprivation of a series of rights.

In the context of food assistance, households are most often given assistance according to their household size on a per capita basis. When establishing a MEB this is challenging. The needs of a household grow with each additional member but, due to economies of scale in consumption, not in a proportional way. Needs for housing space, electricity, etc. will not be three times as high for a household with three members than for a single person. This can be solved by examining the expenditure patterns of differently sized households or with the help of equivalence scales where different household types in the population is assigned a value in proportion to its needs. The fact that needs are not proportional to household size is demonstrated in Figure 2 with the per capita rental costs by household size from the PAB data (here the rent for one person households is implausibly high).

Figure 2 Per capita rental costs by household size



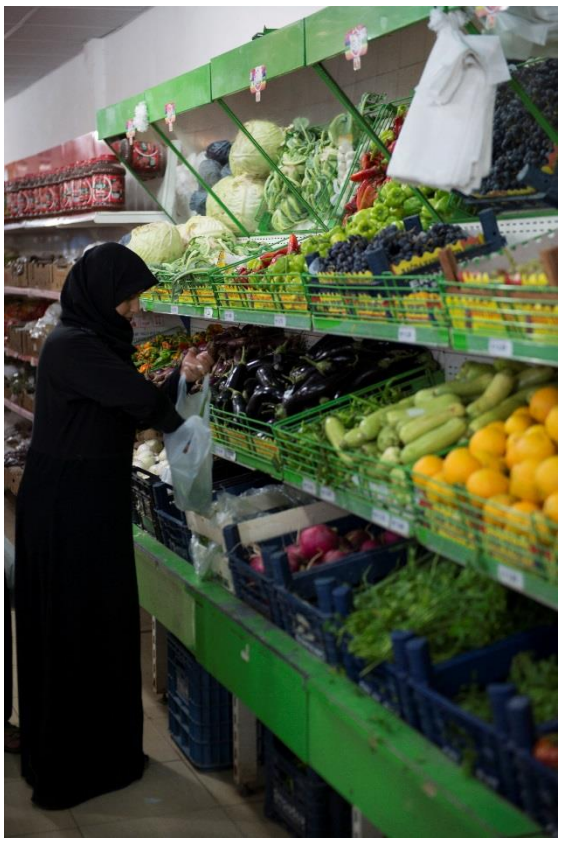
Source: WFP Pre-assistance baseline

MEBs and SMEBs have been established both in Jordan and Lebanon for Syrian refugees. The approaches used in the two countries are somewhat different. In Lebanon, the baskets are defined for a household of five while in Jordan the baskets are different depending on household size. In both countries non-food expenditures are established using a combination of household data on non-food expenditures and prices on individual items. In Jordan, the SMEB only includes expenditures on food, shelter, and water and sanitation, while the MEB includes food, shelter, utilities, water and sanitation, education, health, and transport and communication. In Lebanon, both baskets cover the same basic

categories (the same as the Jordan MEB) but while the MEB has a more diverse food basket, the SMEB has a less diverse basket. Also NFIs and other needs are covered by smaller amounts in the SMEB compared to the MEB.

Defining a MEB for Syrian refugees in Turkey

The starting point for establishing the MEB for Syrian refugees in Turkey is to analyse the composition of expenditure of Syrian refugee households, based on the PAB data. Note that this is a pre-assistance baseline for WFP. This does not mean that the households do not receive any assistance, only that they have not received it from WFP. In fact, 44 percent report to have received some sort of assistance (mostly ad-hoc assistance). This is important since both the level and composition of expenditures might be affected by assistance. Since relatively little data is available at this point, the current analysis opts for only establishing a MEB.



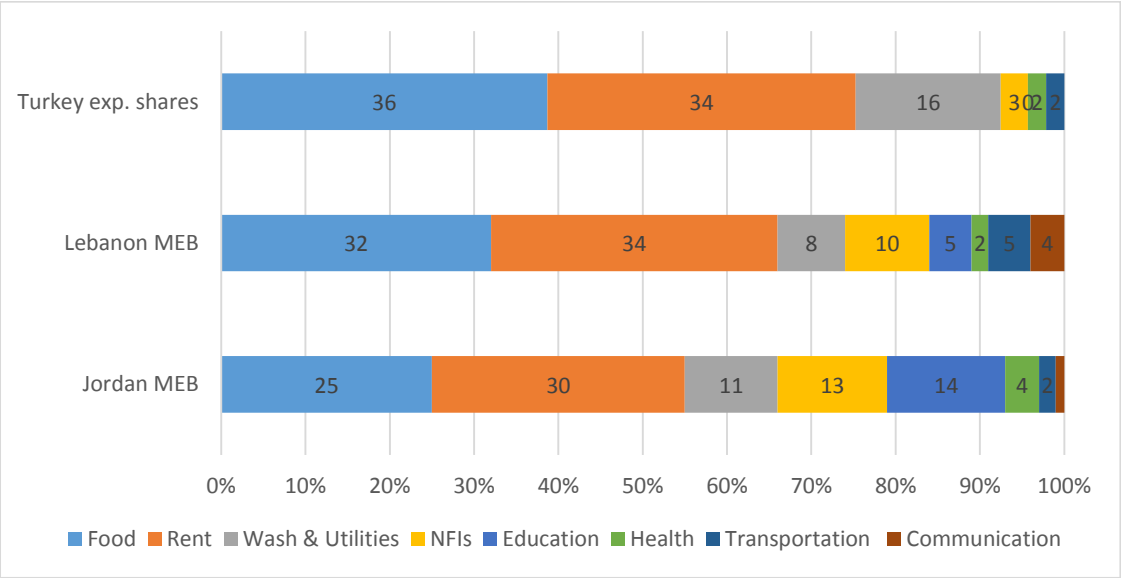
As is evident in Figure 3, food is the biggest expenditure (36 percent) but an almost equal share goes to rent payments (34 percent). Utilities (electricity, gas) and wash (water and sanitation) is covering 16 percent. The data was collected during the summer so the utilities are likely to be higher during the winter because of heating costs. The rest of the categories cover less than 15 percent of the household expenditures. Some further analysis confirmed that the composition of expenditures do not vary hugely between different types of households. One explanation for this is that all the households interviewed are relatively poor. Those that are food poor according to the Turkish poverty line consume slightly more on food (42 percent).

For reference, the composition of expenditures is compared to the composition of the MEBs in Lebanon and Jordan.[16][17] This is one way to verify that this data can be used for constructing a MEB, recognising that price differences and availability of free public services (such as education and health) will affect the composition of expenditures. For all countries five person households are used since MEBs are not proportional to household size. The expenditure shares used on food, and WASH and utilities are higher in Turkey in comparison with the MEBs in Lebanon and Jordan and the households use less on expenditures other than food, rent, and utilities and WASH. Still the comparison gives us confidence that the data is useful for constructing a MEB.

[16] Note that the MEBs in Jordan and Lebanon do not completely correspond to the household expenditure data collected in these countries. According to different rounds of vulnerability assessments of the Syrian refugees in Lebanon, food expenditures stand at 40-45 percent of total expenditures. According to different rounds of the Jordan home visit database, households only spend 19-20 percent on food.

[17] The SMEB in Lebanon has a food share of 36 percent while the SMEB in Jordan has a food share of 41 percent.

Figure 3 Composition of expenditures of Syrian refugees in Turkey and composition of MEBs in Lebanon and Jordan, five person households



Source: WFP Pre-assistance baseline for Turkey, Cash Working Group documents for Lebanon and Jordan

Table 6 demonstrates two different approaches to establish a MEB in Turkey. As explained above, a straightforward way to stablish the MEB is to identify the minimum food basket (WFPs reference basket at 62 TL) and increase it by using the share of food in total expenditure (0.36) to calculate the total MEB, including the non-food component. This would give us 62 TL / 0.36= 172 TL in per capita per month terms. Instead, taking the average of the actual expenditures spent on non-food items would give a slightly higher value of 184 TL. In the upper panel of Table 6 results are presented of expenditures on food, rent and other items by only selecting the households that live in proper housing (not tents or unfinished shelter, basement, garage, storage warehouse or worksite) and taking the actual average expenditures on rent and other expenditures for this group. This gives us a MEB of 191 TL / capita.

The lower panel in Table 6 is based on calculations of actual per capita expenditure on rent and other expenditures for different household sizes in the PAB data. The expenditures per capita drops as the household size increases. For food 62 TL/per person is still accounted for as per current practise. While food expenditures also could be equivalised, food needs are not only related to household size but also age, sex and activity level of persons. Thus, for simplicity the current practise is maintained. Using this method, the per capita MEB for a five person household is 178 TL/month.

Table 6: MEBs by household size, equivalised and per capita

Hh size		1	2	3	4	5	6	7	8	9	10
Per capita	Food	62	124	186	248	310	372	434	496	558	620
	Rent	68	136	204	272	340	408	476	544	612	680
	Other exp.	61	122	183	244	305	366	427	488	549	610
	Total	191	382	573	764	955	1146	1337	1528	1719	1910
	Per capita	191	191	191	191	191	191	191	191	191	191
Equivalised	Food	62	124	186	248	310	372	434	496	558	620
	Rent	160	220	280	280	300	300	320	320	340	340
	Other exp.	100	180	240	240	280	280	320	320	360	360
	Total	322	524	706	768	890	952	1074	1136	1258	1320
	Per capita	322	262	235	192	178	159	153	142	140	132

How does this compare with the Turkish poverty line and MEBs in other contexts? Using the Turkish MEB that no longer is used for poverty statistics[18] and making projections for 2015 based on the CPI, gives a MEB of 302 TL/cap/month for a household of 5 in 2015 (the Turkish MEB is equivalised). This is significantly higher and relates to the fact that the food basket in Turkey is much richer, including over 80 items, and therefore more expensive. The cost for this basket is 107 TL. However the percentage of the food in the total MEB is almost identical to ours and stands at 35.4 percent (107/302). In Jordan the MEB is around USD 117 for a five person household (compared to ours at USD 67). In Lebanon it was USD 114 in 2014. For Lebanon and Jordan it is important to remember that as the interventions are sector and organisation specific, the incentives to keep the cost estimates down for each of the sectors are low. Comparisons with household data provided to WFP by an active NGO in Turkey suggest that both the composition and level of expenditures are of the right magnitude. However, very vulnerable households are overrepresented in these dataset. This means that the MEB established here might be below the actual value.

Table 7: Price indices by region

Region	General index 2014	Food and non-alc. beverages 2012	Housing, water, electricity, gas & fuels 2012
Gaziantep, Adiyaman, Kilis	1.00	1.00	1.00
Sanliurfa, Diyarbakir	0.99	1.01	0.97
Mardin, Batman, Sirnak, Siirt	0.95	1.01	0.89
Istanbul	1.18	1.14	1.53
Izmir	1.09	1.08	1.25
Bursa, Eskisehir, Bilecik	1.04	1.07	1.05
Ankara	1.10	1.05	1.19
Adana, Mersin	1.03	1.03	1.08
Hatay, K.maras, Osmaniye	0.98	1.01	0.96

Source: Turkish Statistical Institute

[18] The Turkish MEB has never been used as a basis for social assistance benefits in Turkey.

The MEB should not be confused with the actual transfer value. Ideally, the transfer values should depend on household vulnerability but a tiered system will not be practical in a dynamic refugee situation where people move in and out of poverty depending on availability of employment, remittances etc. It is also noted that price levels are substantially higher in a few regions (Table 7), particularly in Izmir and Istanbul with high refugee presence. This implies that higher transfers should be considered in these regions. It is recommended that the transfer size is set based on analysis of household needs, availability of resources for the operation and negotiations with the Turkish government of a suitable level of assistance given what Turkish citizens receive.

Recommendations for the way forward

Considering the above, the mission is making the following recommendations for the upcoming scale-up of assistance to the Syrian refugee population in Turkey:

1. Given that the registration database is the backbone of the intervention's scale up, highest priority must be put into the verification of already collected information by the DGMM. This could be done by asking refugees to re-register, making it a prerequisite for applying for any assistance. WFP and other UN agencies must work very closely with and empower the TRC and the DGMM during the process, revamping the old database in order to avoid the above mentioned issues and ensure the reliability of data at all costs.
2. It is essential to find out the exact transfer value that the poorest Turkish citizens (category G0-G1) are entitled to under the national social protection system. On the basis of this information, WFP, TRC and the Ministry of Family and Social Affairs will be in the position to establish the most feasible and appropriate transfer value for the basic needs approach.
3. At this point in time, the current value of the food reference basket value does not need to be changed. However, due to the recently increasing pressure on prices, the ongoing PDM exercises should be carefully and regularly analysed to help decide when and how the reference value may have to be adjusted. Because of the high food insecurity among Syrian refugees, the actual transfer value should be raised from 50 TL (80 percent of the food basket) to 62 TL (100 percent of the food basket).
4. The MEB in this report is to be considered as a starting point but should be re-evaluated as more data becomes available. A price-based MEB should be calculated. Further analysis on the actual transfer value should also be made.
5. Efforts to put in place complaints and feedback mechanisms should continue and be expanded in order to ensure accountability to the affected refugee population. These mechanisms will also be essential in adjusting the proposed targeting approach over time by regularly verifying household vulnerability levels and by assessing the validity and relevance of the three proposed targeting criteria.
6. To facilitate a scale-up of assistance in provinces where WFP is currently not present, a representative household survey in these provinces is recommended. This would verify the need of assistance and facilitate targeting.
7. In collaboration with the Turkish government it could be explored if call detail records could be used to track refugee movements. This could improve knowledge about where the refugees live and the assistance provided to them. HQ VAM could help facilitate this process.

ANNEX-I REGRESSION ANALYSIS

For predicting household welfare using per capita expenditure, a number of variables are expected to be correlated with per capita household consumption. These variables are: household demographics (household size, dependency ratio, characteristics of household heads), timing of arrival, geographical locations, access to labour market, housing conditions, and asset holdings.

In the initial regression model, all the potential variables are entered. The results of the initial model are presented in the **Table-1,** where dependent variable is monthly per capita consumption (log). Out of the forty-two independent variables, twenty-nine were used in the model. Among the independent variables, household size, dependency ratio, education attainments of household heads, access to employment, and governorate (Sanliurfa), per capita living space are important in explaining changes in per capita consumption, while others are not statistically significant. The model explains 41 percent of the variation in per capita consumption in the sample (R-squared is 0.411).

The second model (**Table-2**) only uses those indicators that can be captured through the DGMM registration data. Note that the timing of arrival, as well as the extreme vulnerability do not demonstrate significant correlation with the dependent variable and therefore they are dropped in the model. The weak association may be attributed to the small number of cases that fall under each of the categories: arrival timing less than six months is at 9.0%, whereas each of the EV categories is at 1.5 percent, 1.7 percent, and 7.6 percent for elderly-headed households, child-headed households, and households with pregnant and lactating women respectively. In this model, household size, dependency ratio and geographical locations demonstrate a larger contribution to the changes in the dependent variable. The model explains 28 percent of the variation in per capita consumption in the sample (R-squared is 0.278).

Table-1. Initial model

	Mean	Min	Max	Unstandardized Coefficients	Standardized Coefficients	t statistics	Sig.
Household size	5.67	1	17	-0.042	-0.414	-16.837	0.00
Dependency ratio (ref. 0.5 or less)							
dummy - dependency ratio > 0.5, ≤ 1.0	0.25	0	1	-0.043	-0.077	-2.967	0.00
dummy - dependency ratio > 1.0, ≤ 1.5	0.15	0	1	-0.088	-0.132	-5.22	0.00
dummy - dependency ratio > 1.5, ≤ 2.0	0.15	0	1	-0.075	-0.112	-4.407	0.00
dummy - dependency ratio more than 2.0	0.19	0	1	-0.122	-0.198	-7.364	0.00
Sex of household heads (1=female)	0.24	0	1	-0.028	-0.05	-1.84	0.07
Education attainment of household heads (ref. university or higher)							
hhh_education_no	0.35	0	1	-0.081	-0.161	-3.152	0.00
hhh_education_primary	0.44	0	1	-0.067	-0.139	-2.668	0.01
hhh_education_secondary	0.16	0	1	-0.064	-0.099	-2.387	0.02
Marital status (ref. married)							
hhh_maritalstatus_single	0.05	0	1	0.015	0.013	0.63	0.53
hhh_maritalstatus_seperated	0.02	0	1	-0.066	-0.038	-1.72	0.09
hhh_maritalstatus_widowed	0.10	0	1	0.012	0.015	0.587	0.56
Employment - at least one member employed	0.85	0	1	0.081	0.119	5.215	0.00
Regular employment - at least one member regular job	0.14	0	1	0.053	0.076	3.381	0.00
Governorate (ref. Gaziantep)							
Hatay	0.26	0	1	-0.053	-0.096	-3.275	0.00
Kilis	0.08	0	1	-0.041	-0.047	-1.994	0.05
Sanliurfa	0.19	0	1	-0.069	-0.113	-3.759	0.00
Housing - per capita living space (in square meter)	11.73	0.05	100	0.004	0.136	5.77	0.00
Housing type (ref. apartment/villa)							
Unfinished shelter	0.28	0	1	-0.038	-0.072	-2.721	0.01
Collective Shelter	0.01	0	1	-0.005	-0.002	-0.1	0.92
Separate Room	0.09	0	1	-0.049	-0.057	-2.553	0.01
Household asset ownership							
Heating for house	0.24	0	1	0.045	0.08	3.161	0.00
Car/motorbike	0.02	0	1	0.148	0.083	3.806	0.00
Fan/ventilation	0.30	0	1	0.047	0.089	3.919	0.00
TV	0.84	0	1	0.045	0.067	2.999	0.00
Sofaset	0.25	0	1	0.028	0.051	2.124	0.03
Kitchen utensils	0.69	0	1	0.024	0.047	1.768	0.08
Washingmachine	0.62	0	1	0.015	0.03	1.287	0.20
(Constant)				2.397		63.422	0.00

N=1394
Dependent Variable: log_exp_total_percapita
R square = 0.411 (Adjusted R square = 0.399)
Method: forward stepwise

Excluded variables: asset ownership (mattress, beds, blanket, refrigerator, kitchen, water-heater), extreme vulnerability - elderly/child headed hhs, use of improved toilet, timing of arrival

Table-2. Second model

	Mean	Min	Max	Unstandardized Coefficients	Standardized Coefficients	t statistics	Sig.
Household size	5.67	1	17	-0.039	-0.384	-16.026	0.00
Dependency ratio (ref. 0.5 or less)							
dummy - dependency ratio > 0.5, ≤ 1.0	0.25	0	1	-0.053	-0.096	-3.523	0.00
dummy - dependency ratio > 1.0, ≤ 1.5	0.15	0	1	-0.104	-0.154	-5.847	0.00
dummy - dependency ratio > 1.5, ≤ 2.0	0.15	0	1	-0.108	-0.161	-6.086	0.00
dummy - dependency ratio more than 2.0	0.19	0	1	-0.165	-0.263	-9.485	0.00
Sex of household heads (1=female)	0.24	0	1	-0.052	-0.092	-3.905	0.00
Governorate (ref. Gaziantep)							
Hatay	0.26	0	1	-0.061	-0.113	-4.465	0.00
Kilis	0.08	0	1	0.031	0.034	1.471	0.14
Sanliurfa	0.19	0	1	-0.108	-0.176	-7.344	0.00
(Constant)				2.544		144.547	0.00

N=1394
Dependent Variable: log_exp_total_percapita
R square = 0.278 (Adjusted R square = 0.274)
Method: enter

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