

Executive Summary

Since the latest outbreak of violence in Myanmar on August 25th 2017, over 615,500 Rohingya have crossed into Bangladesh, joining some 300.000 refugees in Ukhia and Teknaf who fled in earlier waves of violence. The scale and magnitude of the influx created a critical humanitarian emergency and placed an immense strain on the host community, available resources and environment.

WFP's October 2017 SAFE Rapid assessment observed that Rohingya refugees are mostly dependent on the distribution of non-cooked food items, including rice and pulses, to cover their meals. With only few organizations supplying cooking fuel, this set-up leaves substantial gaps for both refugees and the local population in the Cox's Bazar district. Here hundreds of thousands of people are facing a severe shortage of cooking fuel. Especially in emergencies, insufficient access or unsustainable natural resource management can lead to a number of nutrition, safety and environmental risks.

Key findings

Firewood is the main source for cooking fuel for most refugee households (91%).

Sustainable wood-fuel management was already challenging before the crisis. The influx of new refugees has exacerbated this problem, leading to large-scale deforestation.

Cooking fuel shortages and concerns take different forms among communities in makeshifts, new sites, and registered camps.

Some 66% of households in makeshift settlements face cooking-fuel shortages, followed by 55% in host communities and 47% percent in new spontaneous sites. In new sites, 20% of households even face severe shortages.

Refugee and host communities indicated high prices as a main obstacle to buy cooking fuel (95%).

Firewood prices are increasing rapidly due to a dwindling supply. Fuel scarcity is resulting in increased tensions with threats from host communities raised as a main concern..

Women also indicate trafficking (66%), GBV (65%), and physical assault (62%) risks during firewood collection. Men are most worried about wild animal attacks (71%).

People have reported to be unable to cook their rations and resort to skip meals multiple times a month or eat undercooked food. Both new arrivals and host communities sold part of their food (rations) to purchase fuel.

There is space for stove and fuel production to address livelihood and energy needs.

Recommendations

Given the unsustainable and worsening, cooking-fuel crisis, recommendations call for a holistic and coordinated humanitarian response to address the energy and environmental challenge in the Cox's Bazar district. WFP and partners should consider:

- Implementation of immediate, mid-term and long-term interventions including fuel distribution, increased access to fuel alternatives, production of alternative fuels and stoves, fuel-efficient cooking practices, self-reliance and livelihood activities and natural resource management.
- A technical mission is required to support the quality and feasibility of identified interventions including testing of fuel recipes and stove design.
- Continued monitoring to assess the effectiveness of interventions and identify reoccurring energy-access gaps in the response mechanism.
- Scaled-up and continued coordination among actors through the stakeholder coordination-working group and appointed sector to oversee cooking fuel concerns.



Introduction

WFP recognizes the crucial role cooking fuel access plays in supporting food-insecure, crisisaffected populations. WFP's Safe Access to Fuel and Energy Initiative (SAFE), addresses the numerous challenges people face when lacking sufficient and safe access to cooking fuel.

In October 2017, a SAFE rapid assessment was conducted to understand and respond to the current cooking energy needs, risks, capacities and vulnerabilities of Rohingya refugees and host communities. As SAFE programmes should be based on a sound understanding of the situational context, the scoping mission therefore planned to i) identify people's immediate risks and concerns when preparing WFP rations hindering their safety and nutritional outcomes and ii) address the gaps among previous energy access, wood fuel & deforestation assessments (FAO and IOM, 2017). These outcomes aimed to assess the severity of the energy-access crisis, provide recommendations for beneficiary targeting and help design appropriate and complementary SAFE interventions for WFP and stakeholders. This report presents the baseline findings from the scoping mission.

Situational background

Bangladesh is one of the most densely populated countries in the world, with 1142 people per square kilometre. The country moved up to a lower-middle-income status in 2015 with poverty and extreme poverty among its population declining sharply. Nonetheless a quarter of the population remains food insure with levels of vulnerability and food insecurity particularly high in the Cox's Bazar district.

This region is also home to the Rohingya population, one of the most persecuted minorities in the world who fled successive waves of violence in the Northern Rakhine State of Myanmar since 1992. New acts of violence in Myanmar erupted on August 25th, driving an estimated 615.500 Rohingya¹ across the border into the Cox's Bazar district.

These new arrivals joined some 300.000 refugees in the Ukhia and Teknaf upzilas whom fled in earlier waves of violence. This led the Bangladesh Government to announce plans to build one of the world's largest refugee camps housing more than 800,000 stateless Rohingya, and replacing many makeshift camps spread through the region.

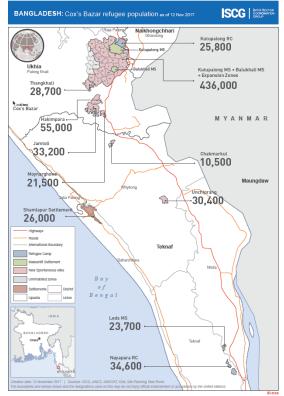


Figure 1: ISCG map of Cox's Bazar Refugee population

The Rohingya population is extremely vulnerable, having fled conflict and experienced severe trauma. Now living in extremely difficult conditions, most are reliant on humanitarian assistance for food. Access to other basic needs are strained due to the high population density on the small strip of land.

¹ ISCG Situation Report: Rohingya Refugee Crisis, - 12 Nov 2017



The tremendous pressure on often already scarcely available resources, such as firewood, results in equal suffering from the host communities. Many countries hosting refugees or IDPs already experience energy challenges due to the increased pressure on dwindling natural resources, leading to massdeforestation, high fuel costs and fuel pollution. Increased pressure from large groups of displaced persons can aggravate these issues and create or intensify tensions or conflict².

A 2017 FAO/IOM report stipulated the already severe fuel wood scarcity in the Cox's Bazar district contextualized by increasing demand and a reduced supply prior to the influx. At the same time most displaced households are wood fuel dependent for cooking³ with only few agencies distributing cooking fuel or firewood to address this disparity.

Some 95% percent of staple foods provided in humanitarian assistance, such as rice and pulses, require cooking. Without sufficient access to cooking-fuel, people are unable to take full benefit of their food rations. Even when aid agencies are suppling fuel, this is often not to cover all meals and the displaced populations continue to harvest natural resources to fulfil their energy needs (FAO/IOM 2017, WFP 2012).

Rohingya refugees have reportedly cleared about 2,000 acres of forestland in Ukhiya and Teknaf upzilas burning about 750,000kg of firewood as fuel every day⁴. This is particularly concerning as Bangladesh is greatly susceptible to natural disasters and the effects of climate change. The Cox's Bazar Regional Forests function as a primary buffer against cyclones, storms and surges for millions of people living in the vulnerable coastal zone of Bangladesh and offers protection to wildlife residing in these forests. The current situation is not only a concern for people's safety and nutrition, but poses risks for irreversible environment damage, caused by massive deforestation. The stripping away of the forest buffer on the Teknaf peninsula could potentially affect millions of people in Bangladesh in the case of floods, and cyclones. Against this backdrop, the current set-up leaves considerable gaps in energy access for the inhabitants of Cox's Bazar and the displaced populations.

Methodology

Qualitative and quantitative research compiled from primary and secondary sources provided data for the SAFE rapid assessment. Sourcing included secondary data research, key stakeholders consultations, semi-structured interviews, participant observation and a SAFE Household assessment aimed to assess:

- The risks and challenges new arrivals, refugees and host communities face when sourcing and using cooking-fuel, and other uses of fuel (such as to generate income);
- Cultural cooking habits including the types of food cooked, stoves used and the roledivide among different activities linked to collecting firewood and meal preparation;
- Types of cooking fuels used, locations where fuel is sourced or purchased, prices and quantities available;
- Negative coping mechanisms and risks in response to of the type of fuel or cooking technology used, fuel sourcing method or access to fuel or stove technologies;
- Type of interventions currently implemented and impacts, and the acceptance, knowledge and preference towards different cooking methods and fuels.

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² UNHCR, The Environment and Climate Change, October 2015

³ IOM/FAO Assessment of fuel wood supply and demand in Cox's Bazar District, June 2017 / Rapid assessment October 2017

http://www.dhakatribune.com/bangladesh/2017/10/21/rohing ya-influx-15-year-old-forestation-project-destroyed-57-days/



Research method

Table 1: Research methods	
Type of research	Approach
Secondary data research	Reports, case studies and guidelines published by humanitarian organisations and research institutions were consulted, specifically the Safe Access to Firewood and Alternative Energy Handbook (WFP, 2012). Up-to-date assessments on wood fuel and deforestation patterns in Bangladesh (FAO, IOM 2017) were available and supported the rapid assessment design, avoiding duplication of efforts.
Direct observation	Field visits to Kutapalong and Leda camp allowed monitoring and examination of cooking practices, cooking-fuel collection and access to markets. Visits to the local market in both Kutapalong and Teknaf provided insights in purchasing practices and impacts on local markets.
Semi-structured interviews and consultations with key- stakeholders Semi structured interviews refugees	Consultations with SREDA (Sustainable and Renewable Energy Development Authority), the Refugee Relief and Repatriation Commissioner (RRRC), WFP country office staff, (implementing) partners, fuel and stove sellers at Kutapalong and Teknaf market and a briquette manufacturer helped understand the context, energy challenges, regulations and opportunities for SAFE activities. Ten interviews took place in Kutapalong and Leda, following a semi-structured approach to allow comparison and support questionnaire development for the HH assessment. The interviewees comprised of six women, three men and one 11-year-old girl (appointed head of household) with arrival dates varying between one day, 2-3 months, 10 years and 25 years back.
SAFE HH assessment	In Kutapalong a SAFE rapid survey was organized. Questions were taken from the SAFE handbook and adapted to the local context based on consultations with stakeholders. A team of 5 enumerators conducted the assessment for a period of 5 days among 242 peoples with a 52% male and 48% female divide. A random selection sample was used. The assessment was categorized in different target groups including i)host communities, ii) refugees in makeshift camps, iii) refugees in new spontaneous sites and iv) refugees in registered camps (Annex I).

Findings and implications

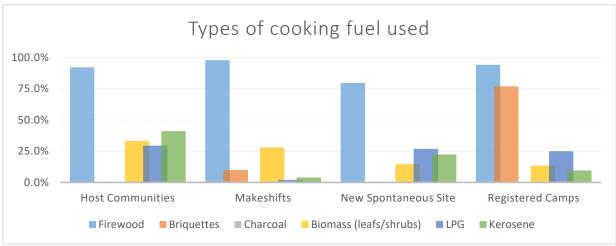
We repeatedly see when cooking fuel is scarce and the main source of income is food rations, portions of these rations are sold and exchanged to meet unmet needs, including cooking energy to be able to prepare the remaining rations. These types of coping mechanisms together with several protection, health, environmental and livelihood concerns are recognized by the SAFE rapid assessment and have been expressed by refugees, host communities, the Government and humanitarian agencies on the ground.

Stove and fuel technologies

Cooking-fuel access is emphasised as a concern by all relevant sectors and agencies, with increased and safe access to fuel or stove technologies highlighted as an essential and immediate need.

With few exceptions, all Rohingya households use firewood to prepare their meals (91%), oftentimes supplemented with other fuel types including other types of biomass (shrubs and leaves), kerosene to get the fire started, LPG or briquettes.

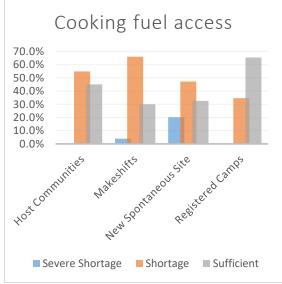




Graph 1: types of cooking fuel used

LPG use was seen in households who either had some financial means, as the initial purchase price is too steep for most households to obtain. Briquettes are distributed through UNHCR in registered camps with some spillover to makeshift settlements. This could possibly be explained through bartering briquettes for other basic needs. The types of fuel used has hardly changed from before the crisis and after, and only communities seemed to have increased the use of LPG from 16% to 30% in the past two months.

The host community is as dependent on firewood as Rohingya refugees, illustrating the large-scale increase of wood-fuel dependency in the region and subsequent shortages.



Graph 2: Severity of cooking fuel shortage among communities

Some 20% of households in the new spontaneous sites indicated an extreme shortage of fuel with 47% indicated a 'normal' shortage. At the same time 66% of households in makeshift settlements faced shortages in cooking fuel, followed by 55% in host communities, and almost 35% in the registered camps. Larger households (>8) more often have sufficient fuel than smaller households (<3). This could be caused by the fact that more family members are available for firewood collection, have savings or a form of income.

The type of fuel used is directly linked with the stove model as most fuels require a complementary stove technology. Globally we still see most firewood users cook on an open fire. However, in Bangladesh the majority of refugees and the local population use a selfmade artisanal stove, built in their homes from mud and clay. While knowledge on stove building is present, a technical assessment would need to proof its efficiency, as the stove appears very rudimental, lacking the proper combustion chamber for increased fuel efficiency or an exhaust to minimize smoke production. This also provides opportunity for local stove production or improvement as opposed to stove distribution.

In makeshift settlements and registered camps, all but few households use this stove, with a little less than 80% of host communities and refugees in new spontaneous sites indicated they had this stove.



In host communities, this gap was anticipated by the use of LPG stoves (33%) while in new spontaneous sites there was no alternative stove model used. It could be that those without a stove either prepare their meals on a threestone fire or do not prepare meals at all.



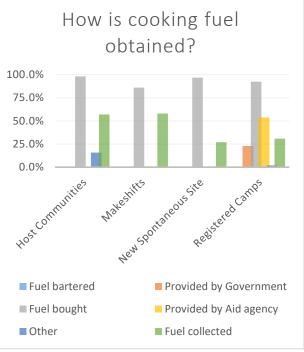
Image 1: Sawre Hassan prepares his meal over a self-constructed firewood stove in his shelter. He has been in Bangladesh for two months. Every five days he collects wood in the nearby forest, taking him a full day to make the trip. "We cook inside the house, it is hard because smoke gets in our eyes and we can't breathe".

Beyond stoves and fuel, people need access to pots and pans to prepare meals. The type of pot or pan used it important to understand the stove model needed.

In new spontaneous sites almost 60% of households indicate that they do not have sufficient pots and pans to cook, followed by 22% in makeshifts camps and 13% in host communities. Only in registered camps access seems sufficient. Most commonly used is the traditional pot or pan (Image 1) with about 88% of households using this model. When looking at identifying appropriate stoves, the rounded shape of this pot needs to be taken into account as it could affect a stove's fuel efficiency.

Stove and fuel access challenges

With a high dependency on firewood for cooking on rudimentary stoves, in a densely populated area, the firewood supply is currently insufficient for many households. While in registered camps some fuel is supplied by either the Government or humanitarian agencies, most households are dependent on either purchasing fuel at the market (93%) or collecting fuel in nearby forests (57% host communities and makeshifts and 28% registered camps and spontaneous sites). among Firewood collection is highest households in host communities and makeshift settlements.

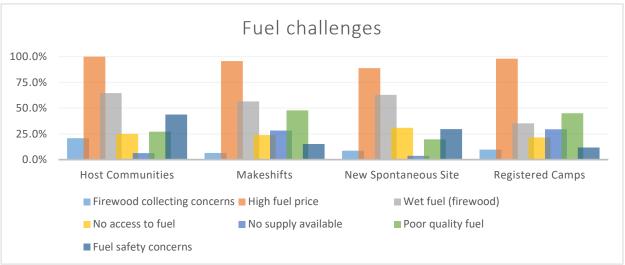


Graph 3: How cooking fuel is obtained.

There are markets near most camps and makeshift settlements where cooking fuels and stoves are sold. Currently only LPG and LPG stoves, firewood and kerosene have been identified to be sold at the market. However, there are challenging factors that can hinder households to access these technologies:

- There is restricted movement for refugees which makes accessing markets difficult;
- The current distribution of NFI-products makes it difficult to assess true capacity for traders to scale up and meet demand;
- Due to an increase in demand, prices have gone up rapidly making fuel unobtainable.





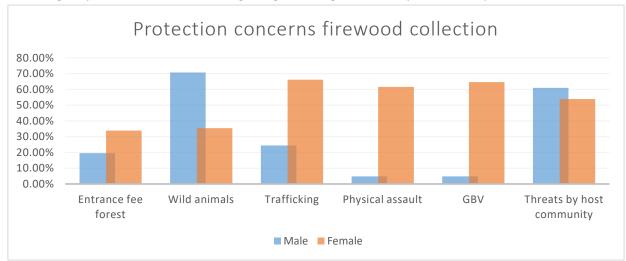
Graph 4: Challenges experienced when collecting and using cooking fuel

Almost all households (95%) indicated high fuel prices as their number one concern with access to fuel, including households purchasing fuel as well as the ones collecting firewood. Another concern shared across the board was wet firewood, which is especially concerning during the rainy season from April to October.

The type of stove currently used also proved numerous challenges when preparing meals. Poor stove quality and poor safety features are listed as the top two concerns with the stove model currently used. These concerns were especially high in new spontaneous sites (quality 78% and safety 69%) and among host communities (quality 62% and safety 75%). Women were also more likely to indicate a poor stove quality (71%) and safety concerns (78%) compared to men (respectively 46% and 44%) likely this is because they are often the ones using the stove to cook and experiencing the challenges first hand.

Protection concerns

The method of obtaining the fuel, especially collection of firewood, leaves people prone to several protection risks. Due to the dual dependency of firewood between host communities and refugees, resistance from host communities is developed. Threats from host communities are named as the most urgent protection concern among refugees in registered camps and new spontaneous sites.

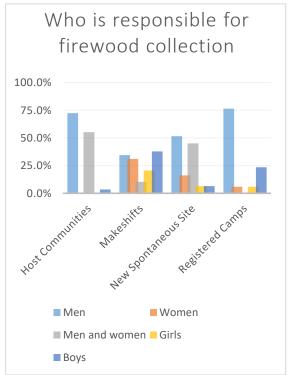


Graph 5: protection concerns during firewood collection for men and women



Threats from host communties were especially high in new spontaneous sites (93%) and makeshift settlements (63%). Protection concerns showed to differ largely between men and women. Whilst women indicated their concerns for trafficking (66%), GBV (65%), and physical assault (62%), men answered to be most concerned about wild animal attacks (71%), especially from elephant herds. In some areas, shelters have been built on elephant walkways while firewood collection leads people further into the elephant's natural habitat, increasing exposure to attack.

All groups, including host communities, indicated sometimes having to pay an entrance fee for the forest. Given that across communities, roughly 75% of the population is poor to very poor, many don't have the financial means to pay these fees⁵. It is reported that firewood collection is used as a livelihood opportunity; when an entrance fee is to be paid, no little profits are actually made.



Graph 6: Role divide for firewood collection



Image 2: Eleven-year-old Munu came to Bangladesh as a refugee child. Here she is preparing firewood to cook which was collected in a forest at Thangkhali Makeshift in Ukhiya, Cox's Bazar.

Worldwide it is often women and girls who are responsible for firewood collection, however the situation in Bangladesh paints a slightly different picture. In registered camps it is mostly men and boys who are collecting firewood. In other settlements and host communities there is an equal divide with women also participating in the firewood collection. In some cases in in makeshifts, new spontaneous sites and registered camps, girls also participate with the collection. The latter can be caused by the fact there is no capable men, or woman, in the household which requires a shift in the gender-role divide.

Nutrition and health concerns

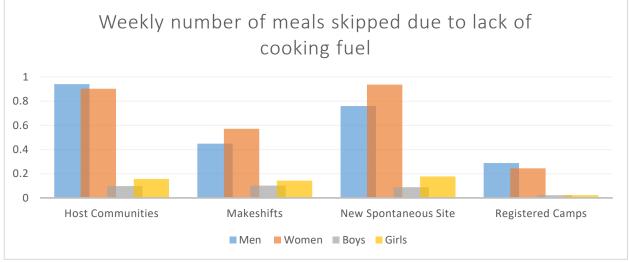
With a high dependence on firewood, in a densely populated area, the firewood supply is insufficient for many households. To cope with the lack of cooking fuel access, a number of mechanisms are adopted among households. On average households in Cox's Bazar effectively cook 4 to 6 hours a day. This includes reheating pulses, vegetables and meat or fish. The time spent cooking requires considerable amounts of firewood, as the average household consumes 4.3kg a day⁶.

⁵ Livelihoods in the Teknaf – Ukhia peninsula WFP/ECHO, 2017

 $^{^{\}rm 6}$ IOM/FAO Assessment summary of fuel wood supply and demand in Cox's Bazar District, June 2017



WFP is currently providing, micronutrient fortified biscuits to families as they arrive, followed up with 25 kg of rice every two weeks per household until February 2018. While tying-over new arrivals with high-energy biscuits, together with hot meals provided by ACF supported with WFP supplied rice, products in the WFP food basket (rice, lentils and yellow split and oil) require a long and fuelconsuming preparation time. To anticipate their cooking fuel consumption in the light of firewood scarcity, households have answered to avoid certain types of food given its high fuel consumption. At times, Rohingya refugees have been unable to prepare their rations, skipping meals multiple times a month or eating undercooked food in response to the increasing wood fuel shortage. Some 45% of households in new spontaneous sites and 15 % of households in registered camps indicated they sold part of their rations to purchase cooking fuel. Host communities are also affected, as they are unable to prepare meals, exchanging food for fuel (33%) and undercooking meals (28%). At the same time 43% of households in new, spontaneous sites answered to exchange part of their rations for fuel. This almost did not occur in makeshifts and registered camps. Undercooking meals also happened often in makeshifts and spontaneous sites.



Graph 7: meals skipped per week in response to fuel deficiencies

Skipping meals occurs mostly in new sites and within host communities in response to the cooking fuel shortage and is usually absorbed by adult men and women. It must be noted that not all households are skipping meals, skewing the picture. Only taking into account households who skip meals, this results in an average of 2.3 meals a week for both men and women in host communities followed by respectively 1.4 and 1.8 meals per week for men and women in new spontaneous sites. Further health implications mentioned are caused by burning over open fires inhaling the smokes and causing eye-irritation. This is mostly because the cooking takes place in poor ventilated dwellings on rudimentary stoves. The Shelter/NFI sector assessment of shelter upgrade needs, echoed these concerns and mentioned children suffering from smokefilled shelters when food is prepared as there is currently no space available for outdoors cooking⁷. FAO's wood-fuel and deforestation rapid assessment showed that some 90% of population experienced difficulties caused by excessive smoke from cooking from cooking.

⁷ Shelter / NFI Sector, Cox's Bazar Rohingya Refugee Crises Assessment of Shelter Upgrade Needs October 2017



Livelihood concerns

Beyond firewood collection for personal use, bundles of firewood are sold by refugees to generate income, undercutting the prices of host communities involved in firewood collection as a livelihood activity. While further market assessment is needed, firewood salesmen, refugees and host communities have indicated that prices are increasing due to the unprecedented demand and quick dwindling of natural resources including firewood. Especially those very poor are more dependent on firewood collection as an income generating activity.



Image 3: 13 year-old Ibrahim on his way to the bazaar to sell firewood collected from forest at Thangkhali, Makeshift in Ukhiya, Cox's Bazar

There is a severe gap in sufficient livelihood opportunities, creating (potential) conflict between host and refugee communities vying for the same scarce firewood sources and wood fuel-dependent livelihoods. Stove and alternative fuel production could provide new income generating options for both host- and refugee communities, enhancing self-reliance.

Environmental Risks

The forest areas around Kutapalong camp are rapidly depleting and the environmental degradation is immediately apparent as you approach the vicinity of the camp. The erosion caused by deforestation combined with heavy rains can set the stage for localized mudslides. This is a severe threat as Bangladesh is prone to natural disasters and the effects of climate change, with the regional forest in the Cox's Bazar district functioning as a primary buffer against cyclones, storms and surges for millions of people living in the vulnerable coastal zone of Bangladesh. The same forests also have been proven detrimental for biodiversity and for income generating activities and offer protection to wildlife residing in these woods⁸.

Strategic approach

Access to cooking energy is a critical, life-saving component of humanitarian response as it can address all aspects of food security given the importance of energy for the utilisation of food, diversification of livelihood activities and powering agriculture. WFP must ensure that rations can be cooked and consumed safely and provide assistance in ways that aim to support the protection of conflict- and disaster-affected populations without exposing people to further harm. This means WFP mindful of protection that is considerations, such as the case with accessing firewood and cooking-fuel for meal preparation. Assistance strategies for energy challenges should be conflict-sensitive while contributing, to the extent possible, to a peaceful coexistence between refugee and host communities⁹.

The Safe Access to Fuel and Energy initiative aims to mitigate risks associated with cookingfuel access and meet cooking energy needs, recognising a number of negative food security implications that a lack of safe access to cooking fuel can have. SAFE activities engage with communities in pursuit of long-term resilience-building strategies with the overall objective to increase efficient and alternative fuel use and energy technologies for food security at the household, community, and national levels.

⁸ Haque et all, Bulletin of the World Health Organization, 2011

⁹ WFP Refugee Assistance Guidance Manual Emergencies and Transitions Unit (OSZPH) Programme and Policy Division, 2017



Opportunities

To help reverse the impact of cooking fuel scarcity and deforestation, interventions should aim to reduce firewood needs, provide alternatives and rehabilitate degraded forests and land. The approach should incorporate sustainable solutions benefitting both the refugee and host community. Given the population's poor household economic status, concerns must be raised when looking at the distribution of stoves, given its potential to be sold, affecting local markets and not achieving the desired outcomes of reducing people's cooking fuel needs. This requires a tailormade, context appropriate model, comprised of a set of energy-related livelihood and selfreliance interventions, including:

- Enabling people to make full use of their rations through reducing firewood needs; providing immediate access to firewood and alternative fuels; stove and fuel production training; fuel inclusion for evouchers and 'stop-gap' solutions;
- Reducing protection concerns during firewood collection through the provision of alternative fuel sources and reducing firewood needs, minimizing collection and exposure time;
- Mitigating indoor-air-pollution and heat concerns while cooking inside shelters through education, the use of cleaner stoves, communal cooking spaces and alternative fuel options;
- Mitigating negative environmental impacts by promoting fuel-efficient stoves, alternative fuel and sustainable natural resource investments;
- Supplementing the loss of firewood dependent livelihoods through livelihood diversification for refugee and host communities through energyrelated CFW and FFA activities;
- Curtailing potential conflict between host and refugee communities through introduction of alternative fuels and livelihood diversification.

Coordination mechanism

The Inter-Sectoral Coordination Group (ISCG) is appointed to supervise the humanitarian response in Cox's Bazar, Bangladesh. This includes the activities under the first phase of the Humanitarian Response Plan (HRP), which are rolled out until February 2018. The second phase will start in March 2018, focusing on medium to long-term interventions increasingly targeting host communities.

The issue of cooking fuel access is placed under the responsibility of the NFI-Shelter sector while much interest has also been showed by the Food Security sector. Complementary programming and collaboration among actors and sectors is crucial as activities implemented without coordination can cause reverse impacts or undermine efforts. There must be a cross-sectoral approach for fuel-related interventions over the short, medium and long term closely following the IASC Task Force on SAFE Matrix¹⁰. To enhance coordination and avoid duplication efforts, a stakeholder coordination network was introduced by the GACC, SREDA, WFP, FAO, IOM and BRAC, to ensure further interventions remain in line with the sector-wide approach.

While serious cooking-energy access concerns have been raised by humanitarian actors, government departments, beneficiaries and host communities, few organizations started response interventions. Taking the lead in coordinating efforts, FAO, IOM and WFP drafted a joint concept-note to identify the most viable pathways for efficient and complementary programming for the immediate-, short-, medium- to long-term based on the respective agencies' assessment recommendations. The project will; follow as phased approach set for three years and closely follows the 2-phase layout of the HRP.

¹⁰ IASC Matrix on Agency Roles and Responsibilities for Ensuring a Coordinated, Multi-Sectoral Fuel Strategy in Humanitarian Settings, 2009



The current energy set-up in the Cox's Bazar district leaves severe gaps affecting the wellbeing of Rohingya refugees and host communities. Without immediate and appropriate coordinated response, severe outcomes can ensue for people's nutrition, health, safety and environments.

Targeting

Given the magnitude of the influx, a response must be facilitated to address the needs of an estimated 1 million affected persons, including new arrivals, people who arrived before the new influx, registered refugees and the host communities¹¹. The scale of the crisis requires a targeted approach to roll-out interventions. Provided that most negative coping mechanisms and protection concerns where seen in I) new spontaneous sites, II) host communities and III) makeshifts. Targeting should focus on supporting those most vulnerable in both host and refugee communities. including female-headed. elderly-headed, and child-headed households, very poor households, and those dependent on firewood as a form of income generation.

Intervention recommendations

A combination of interventions, including:

- 'Stop-Gap' solutions where appropriate solutions such as high-energy biscuits (HEBs) and ready-to-eat meals;
- Immediate distribution of cooking fuels (firewood, briquettes, pellets);
- Testing and development of i) appropriate alternative fuels, such as briquettes and biogas, and ii) traditionally used stoves;
- Alternatives access for food consumption and preparation through pre-cooked meals, and communal cooking facilities;

- Self-reliance support for women's and vulnerable groups through the production or utilization of alternative fuel sources, including business plan development;
- Natural resource management and land rehabilitation to address environmental degradation and improve woodfuel supply;
- A technical mission is required to support the quality and feasibility of identified interventions including testing of fuel recipes and stove design.

Monitoring and evaluation

Access to M&E data to address gaps in the response system and where needed alter interventions is required, this includes:

 Continued monitoring to assess the effectiveness of interventions to adjust programme designs where needed and identify reoccurring energy-access gaps in the response mechanism.

Coordination

Advice for continued coordination, including:

- Scaled-up and continued coordination among actors through the stakeholder coordination-working group and NFI-Shelter sector. Coordination should commence with UN-agencies, NGO's, private sector and Government agencies.
- WFP, FAO and IOM, with support from the Global Alliance for Clean Cookstoves, is recommended to continue to function as coordinating body of the stakeholder working-group based on their work, expertise and respective oversight of Global and National SAFE Working Groups.
- Attune all levels of work and proposed interventions with relevant Government partners specifically looking at the legal and policy frameworks through which the needs of refugees are met.

¹¹ WFP, October 2017



ANNEX I



Figure 2: Makeshift settlements and new spontaneous sites map since the August 2017 influx in Cox's Bazar district Bangladesh