

WFP



wfp.org

BÉTOU & IMPFONDO MARKET ASSESSMENT IN LIKOUALA – REPUBLIC OF CONGO

This market assessment assesses the feasibility of markets in Bétou and Impfondo to absorb and respond to a CBT intervention aimed at supporting CAR refugees' food security in The Republic of Congo's Likouala region. The report explores appropriate measures a CBT intervention in Likouala would need to adopt in order to address hurdles limiting Bétou and Impfondo markets' functionality.

*Cash Based
Transfer
Market
Assessment:
December
2015*



Contents

Executive Summary:	4
Section 1: Introduction and Macro-Economic Analysis of RoC	5
1.1: Introduction	5
1.2: The Economy	6
Section 2: Market Assessment Introduction and Methodology.....	9
2.1: Market Assessment Introduction	9
2.2: Market Assessment Methodology.....	9
Section 3: Limitations of the Market Assessment	10
Section 4: Market Assessment Findings	11
4.1: Bétou.....	11
4.2: Impfondo	12
4.3: Source of food.....	13
4.4: Trader constraints.....	14
4.5: Food prices.....	15
4.6: Infrastructure / Road Network	18
4.7: Storage facilities.....	18
4.8: Telecommunications.....	21
4.9: Security	21
Section 5: CAR Refugee Food Security in RoC and the implications on the most appropriate intervention modality	22
5.1: CAR Refugee Food Security.....	22
5.2: Implications of CAR Refugees’ food security trends on Likouala intervention modality	24
5.3: Omega and Alpha Values	26
Section 6: Conclusions	29
Section 7: Recommendations	30
Annex	32
Annex 1: Map of trade routes and volumes in Likouala and Sangha Departements.....	32
References	33

Acronyms

CAR	Central African Republic
CARI	Consolidate Approach for Reporting Indicators
CBT	Cash Based Transfer
C&V	Cash and Vouchers
CFSVA	Comprehensive Food Security Vulnerability Assessment
CO	Country Office
CPI	Consumer Price Index
DRC	Democratic Republic of Congo
ECI	Economic Complexity Index
FAO	United Nations Food and Agriculture Organization
FCS	Food Consumption Score
GAM	Global Acute Malnutrition
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IMF	International Monetary Fund
IYCF	Infant and Young Child Feeding
Kg	Kilograms
KCal	Kilocalorie
Km	Kilometers
JAM	Joint Assessment Mission
Lt	Litres
M	Meters
MAM	Moderate Acute Malnutrition
MDG	Millennium Development Goal
Mt	Metric Tonne
NGO	Non-Governmental Organization
NVS	Nutritional Value Score
ORA	Observer, réfléchir, agir
PDM	Post-Distribution Monitoring
RBJ	Regional Bureau Johannesburg
RoC	The Republic of Congo
RUSF	Ready-to-Use Supplementary Food
SAM	Severe Acute Malnutrition
SMART	Standardized Monitoring and Assessment of Relief and Transitions
US \$	United States Dollars
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
VAM	Vulnerability Analysis and Mapping Unit of WFP
WASH	Water Sanitation and Hygiene
WFP	United Nations World Food Programme
XAF	Central African French Franc
°C	Degrees Centigrade
Ω	Omega Value

Acknowledgements:

This market Assessment would not have been possible without the support of the WFP RoC Country Office as well as WFP's Sub-Office Staff in Bétou who provided time and energy to collect, analyze the market data and write the report. Special thanks go to Gautier Massamouna, Gildas Mouhouelo, Aloys Robin, Noe Packoua and Jan Michiels. Our thanks also go to UNHCR for having provided us with a vehicle during field work. Our sincere gratitude also go to the traders and key informants in the markets who generously gave their time to provide the required information; without their input this report would not have been possible.

Cover Photo: Josias Gautier MASSAMOUNA – Impfondo, Republic of Congo

Executive Summary:

- Focus group discussions with Central African Republic (CAR) refugees indicated that a majority of the refugees prefer to receive food assistance through cash based transfer (CBT) rather than in-kind. The main reasons for their preference were that: the refugees feel the in-kind food WFP provides is not sufficient to meet their household's needs, and that the food distributed does not meet their traditional culinary habits. As a result, around 3.2% of CAR refugees mentioned selling all of the WFP rations they received and another 41.8% of the CAR refugees mentioned selling part of the WFP rations they received compared to 54% of CAR refugees who mentioned consuming the totality of the WFP rations they received (JAM, 2014). The reason behind the monetization of WFP's food was notably to use the money to buy food which better matched their food preferences as well as to buy non-food items their households' required.
- WFP interventions supporting CAR refugees in the region (notably in DRC) have already started providing refugees with food assistance through CBT. These CBT interventions do not seem to have negatively impacted the local market. Local authorities in Bétou and Impfondo have also given their approval for a CBT intervention and there seem to be no major security risks.
- Nutritional status of CAR refugees in Likouala is often poor especially when they have just arrived in RoC from CAR. As a result WFP is intervening by providing in-kind general food distribution rations together with Supercereals to all CAR refugees. Supplementary feeding programmes for pregnant and lactating women as well as for children between 6 – 59 months of age are also being provided. The CBT will have to ensure that refugees can access the required nutritious foods (and variety of food commodities) to meet their nutrition requirements. This is not simple considering the remoteness of Bétou and Impfondo from urban centres in the region.
- Likouala is heavily affected by transport constraints. The region is highly food deficit, having to import most of its food. Seasonality heavily impacts transportation of food to Bétou and Impfondo's markets especially in the dry season (January to June) when the Ubangi River water levels are too low to facilitate food to be supplied to the region. However, local trade in fresh food commodities is unaffected during this period as small boats (pirogues) are used for retail level food commodity trade between DRC and RoC.
- Functioning markets for fresh food commodities, adequate storage capacity and traders' food availability as well as interest in CBT in Bétou and Impfondo, means that a CBT intervention in support of CAR refugee food requirements in Likouala is feasible.
- Monitoring of food prices is a must especially seeing the lack of adequate reliable food price data for Bétou and Impfondo. Close monitoring of the volumes and types of food stored at the markets stalls/shops also needs to be undertaken.
- Initial analysis has found that given the remoteness of Bétou and Impfondo, a hybrid food assistance modality will likely provide the best nutritional value score per US Dollar invested. Through the hybrid intervention modality, CAR refugees will continue to receive WFP fortified and Specialized Nutritious Foods (fortified cooking oil, Supercereal, Plumpy Sup and iodised salt) in addition to being given the ability to purchase local foods which more closely resemble their traditional diets such as fish, cassava, *saka saka*², local beans and ground nuts. A hybrid food assistance intervention will increase the diversity of the foods CAR refugees will have access to as well ensuring foods consumed remain close to traditional food habits.

² *Saka saka* are cassava leaves

- The next step is to conduct the remaining CBT sectoral capacity assessments (Programme, Finance, Supply Chain, ICT and Security) to complete the CBT feasibility study.

Section 1: Introduction and Macro-Economic Analysis of RoC

1.1: Introduction

The Republic of Congo (referred to as Congo, The Congo or RoC in this report) is a central African country lying in the central Western part of sub-Saharan Africa. The Congo shares borders with five countries: Angola, The Democratic Republic of Congo (DRC), The Central African Republic, Cameroon and Gabon as well as with the South Atlantic Ocean.

The country has a young and mostly urban population with more than half of its 4.1 million inhabitants under 20 years of age and 63% of the population living in cities. The Congo is one of the most urbanized countries in Africa, with 70% of its total population living in a few urban areas, namely in Brazzaville, Pointe-Noire or in one of the small cities or towns lining the 534-kilometre railway which connects the two major cities of the country. About 2% of the population are indigenous and live in the heavily forested area, mostly in the north of the country.

Pointe Noire, is the country's economic capital and is located in the south West of the country while Brazzaville, the bureaucratic and official capital, is located in the South of the country just 8kms away from Kinshasa, the capital of DRC. The concentration of investment to these two cities has led to significant geographical imbalances, in particular between rural and urban areas. According to the 2011 Congolese National Household Survey (Enquête Congolaise auprès des ménages, ECOM) poverty in rural areas is 74.8% compared to 32.3% in urban areas.

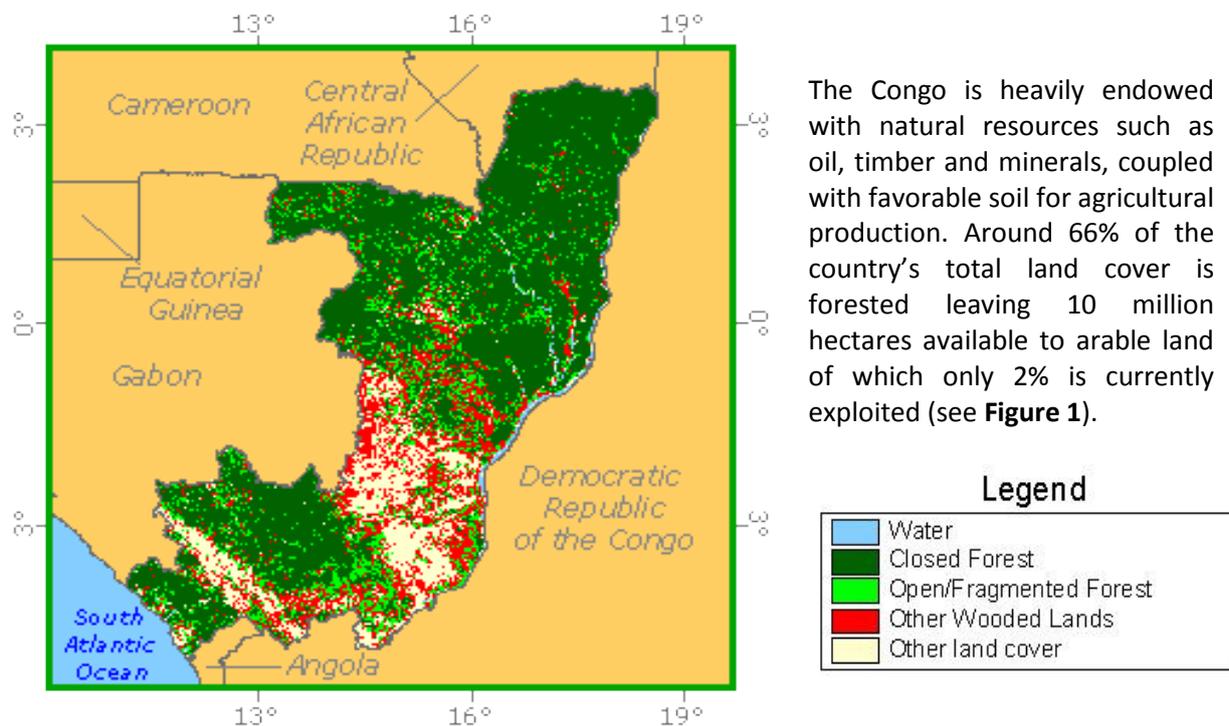
According to the UNDP Human Development Report of 2015, the Republic of Congo is counted among the middle income countries and ranks 136th on the Human Development Index out of 188 countries. The mortality rate for children under-five is 49.1 per 1,000 live births, below the African WHO average of 81 per 1000 live births and just under half (46.5%) of the overall population is living below the national poverty line of 839 XAF or US \$1.6.

Republic of Congo Fact File

Population	Just over 4.15 million, over 70% live in urban areas
Climate	Tropical all year round. Day temperatures are a humid 24°C and night between 16°C and 21°C. Average annual rainfall 1,100mm in the south and over 2,000mm in the center and north. Dry season is from June – August while peak rainfall occurs in March – May (center and South) and September – November (North)
Political administration	The country is divided into 12 Departments: 2 urban (Brazzaville and Pointe Noire) and 10 rural (Bouenza; Cuvette; Cuvette-Ouest; Kouilou; Lekoumou; Likouala; Niari; Plateaux; Pool; and Sangha). Each Department is further divided into Communes and Districts.
Currency	The country is part of the Economic and Monetary Community of Central African countries and uses the shared Central African French Franc (XAF) as official currency.
GDP Total:	US \$14.705 billion (IMF, 2013)
GDP Per Capita:	US \$3,400 (IMF, 2013) – Lower Middle Income Country
HDI:	0.564 – 140 th (medium, HDR 2014)
Gini Index:	40.2 (medium – WB, 2015)

According to the 2015 State of Food Insecurity (SOFI), The Congo has 1.4million malnourished people in the country representing 30.5% of the total population. This is down from 43.2% in 1990-92. Chronic malnutrition however, remains a significant problem with more than 30% of children stunted in some districts (Lekoumou, Plateaux, Sangha and Kouilou – DHS, 2012). The pace and quality of growth over the past years has not been sufficient to significantly reduce poverty, which declined from 50.7% in 2005 to 46.5% in 2011, well above the 35% target for 2015 set in the Millennium Development Goals (MDGs). According to the 2010 WFP Comprehensive Food Security and Vulnerability Assessment (CFSVA), in two departments (Lekoumou and Plateaux) more than one family in four has poor or limited food consumption rates and in another three departments – Cuvette, Pool and Niari, more than 10 percent of families suffer from food insecurity.

Figure 1: Land cover in RoC 2013



Source: FAO 2015b <http://www.fao.org/forestry/country/en/cog/>

1.2: The Economy

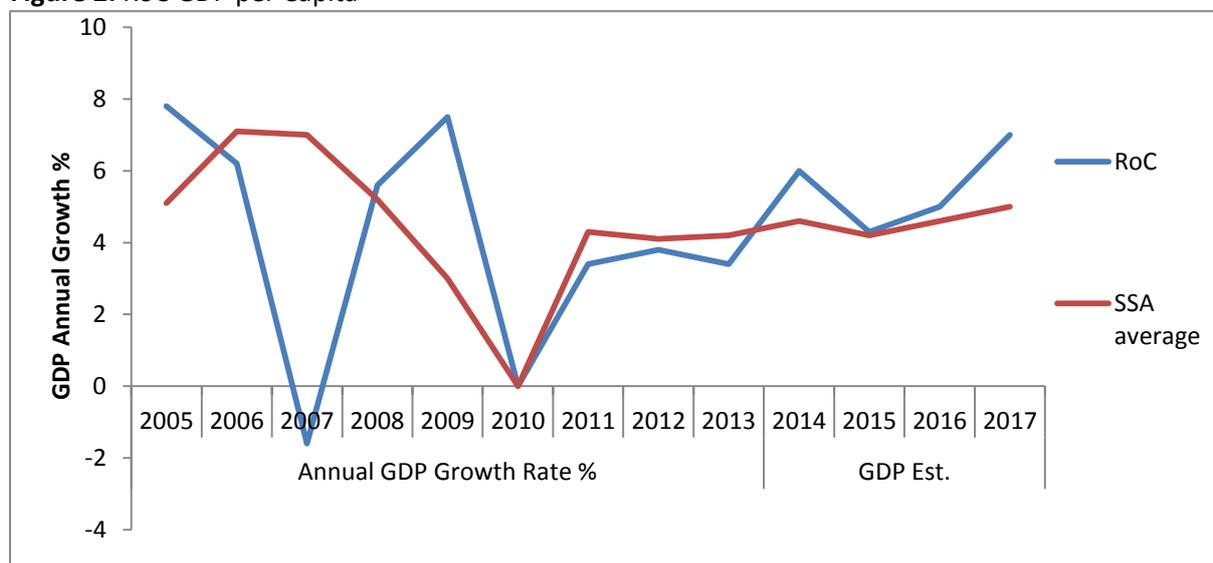
The Congo is the 87th largest export economy in the world and 101st most complex economy according to the Economic Complexity Index (ECI). In 2013 The Congo exported US \$12.2 billion worth of traded goods and imported US \$9.6 billion, for a positive trade balance of US \$2.62 billion. The country's top exports are crude petroleum (US \$8.09 billion), passenger and cargo ships (US \$1.04 billion), refined copper (US \$534 million) and refined petroleum (US \$417 million). Its top imports were passenger and cargo ships (US \$2.31 billion), special purpose ships (US \$2.19 billion), other sea vessels (US \$437 million), tug boats (US \$378 million) and refined petroleum (US \$144 million)³.

³ The Observatory of Economic Complexity http://atlas.media.mit.edu/en/profile/country/cog/#Trade_Balance

Due to weak domestic crop production vis-à-vis national requirements over 70% of all food needs in the country are imported, thus resulting in high local food prices vis-a-vis international prices and high dependence on international food markets to meet national food requirements. The top ten food imports in 2011 amounted to 378,298MT for a total value of US \$317,732,000 compared to 47,402MT for top food exports in 2011 and total value of US \$23,596,000 (FAO, 2015b⁴). Moreover, specifically regarding cereals, approximately 94% of Congo’s total cereal utilization is imported through commercial channels. For the 2016 marketing year, the cereal import requirement, mainly wheat and rice, is forecast at around 300,000MT, similar to 2015 (FAO, 2015c⁵).

The government’s recent expansionary budgetary policy and the drop in oil prices has increased the current account deficit of Congo’s balance of payments to 6.3% of GDP in 2014 from 4.7% in 2013. Moreover, Congo’s fiscal deficit, a measure of annual national expenditure compared to generated revenue rose to 8.5% of GDP in 2014 from around 5% in 2013. The country’s GDP deficit stood at 26.8% of GDP in 2012.

Figure 2: RoC GDP per Capita



Source: WB 2015 <http://data.worldbank.org/country/congo-republic>

Economic growth reached 6% in 2014 picking up from 3.3% in 2013. GDP is heavily influenced by national oil production making up over 60% of national annual GDP. However, even though the weak value of oil on international markets may likely dampen the expected surge in economic growth in the coming years the public investment programme, the country’s recent mining production projects and the growing importance of the service and agricultural sectors to overall GDP are expected to keep the country growing at 6.8% in 2015 and 7.3% of GDP in 2016 (African Economic Outlook, 2015⁶) – see **Figure 2**. The breakdown of the sectors of the economy by financial contribution to overall GDP in 2011 was as follows: Agriculture 4.2%, Services 25.1% and Manufacturing and Industry 70.7%. Yet, notwithstanding the high economic growth rates national unemployment rates remain high at 46% in 2013 even though decreasing from 60% in 2009 (Banque Centrale du Congo).

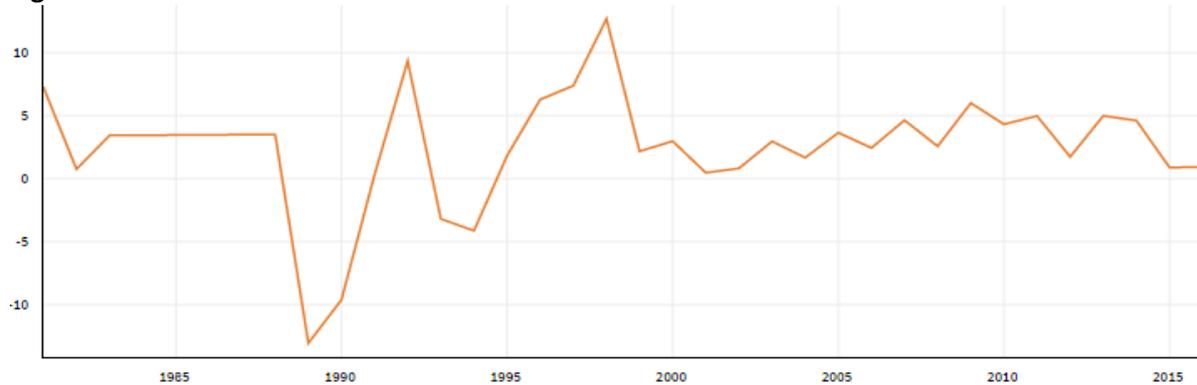
⁴ FAO 2015c, FAOSTAT http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=46

⁵ FAO 2015d, FAO Country Briefs <http://www.fao.org/giews/countrybrief/country.jsp?code=COG>

⁶ <http://www.africaneconomicoutlook.org/en/country-notes/central-africa/congo/>

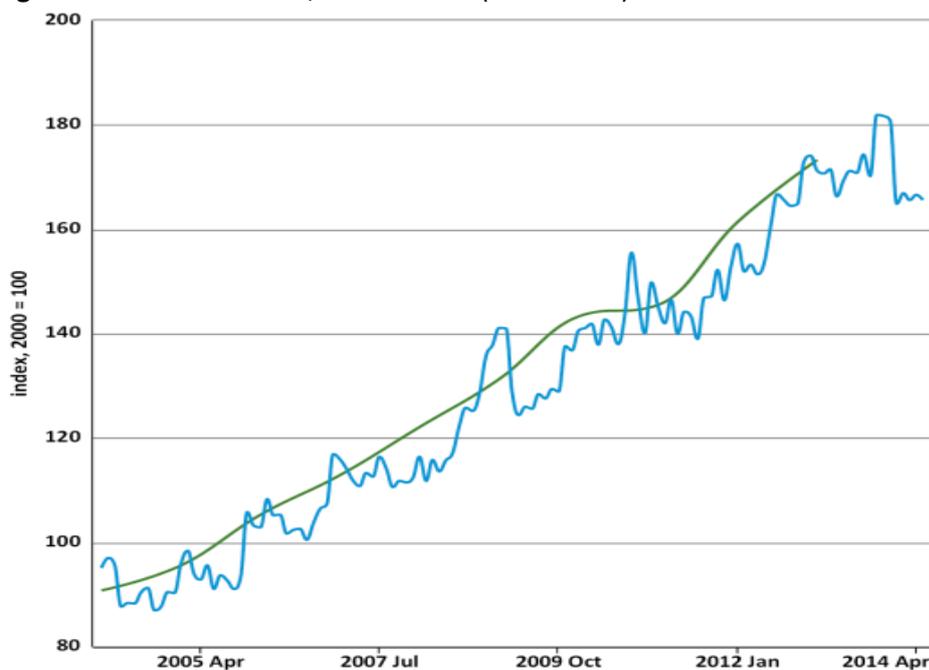
Congo's inflation rate has been fluctuating heavily between lows of -3% and highs of 11% but with a general increasing trend between 2010 and 2015 (**Figure 3**). Inflation between 2013 and 2015 has remained around 3% largely as a result of falling global food prices (IMF⁷).

Figure 3: RoC Inflation rate trend 2010-2015



Source: Quandl and Open Data for Africa⁸

Figure 4: Consumer Prices, Food Indices (2000 = 100)



The price of food has been rising steadily in The Congo overtime and even though it saw a slight dip in 2014, food related CPI has continued to rise in 2015 and is expected to continue rising further in 2016 (**Figure 4**).

Source: FAOSTAT⁹

The country is familiar with civil unrest and armed struggle as it lived through a series of violent conflicts just over a decade ago. From 1997 to 2003 the country experienced civil war (July 1997 – September 1997) where tens of thousands of people died and a rebel uprising (between 2002 and 2003). Both armed conflicts were instigated by power struggles around national presidential elections. Recently, in early November 2015, civil unrest took place in urban areas across the country

⁷ <http://allafrica.com/stories/201507231194.html>

⁸ Quandl https://www.quandl.com/data/ODA/COG_PCIPCH-Republic-of-Congo-Inflation-change-Average-Consumer-Prices?utm_medium=graph&utm_source=quandl

⁹ FAO 2015e FAOSTAT: <http://knoema.com/FAOCPI2015Jan/fao-consumer-price-indices-may-2015?country=1000500-congo-brazzaville&action=export>

as the current President, Denis Sassou Nguesso, had the constitution changed so that he can run for a third term. Congo's next national presidential elections are set to take place in early 2016.

Section 2: Market Assessment Introduction and Methodology

2.1: Market Assessment Introduction

Since the December 2012 violence in the Central African Republic (CAR) when Seleka forces captured Bangui and ousted the government of President Francois Bozize, an estimated 600,000 people were displaced from their homes in the country and another 100,000 people were forced into exile to neighbouring countries. At the end of 2013, further attacks on and execution of civilians in hospitals and worship places were also reported, which led to major fighting in CAR and prompted more people to flee the country. Four years later the conflict in CAR continues with no close end in sight.

Currently 12,672¹⁰ people from CAR are seeking refuge in The Congo, mainly in the Likouala Departement (District). The CAR refugees in RoC are mostly located in the Likouala Province, more specifically in two sites close to the CAR border on the Ubangi River: Bétou (11,530 refugees) and Impfondo (1,142 refugees). The influx of refugees from CAR added to an already significant refugee population from the DRC in Likouala, where more than 117,000 had people fled the Equateur Province in 2009 to Likouala, following tribal clashes. The process of repatriation of DRC refugees is ongoing and currently 12,432 DRC refugees remain in the country awaiting repatriation in the coming months.

Due to difficult access to the region throughout the year, high cost of transportation and beneficiary preference, WFP is considering using cash based transfers (CBT – a variety of cash and voucher options) rather than in-kind distributions to support the refugee food requirements. This would mean using the local market to support the refugees' food requirements. The added benefit of using local market actors rather than bringing food into the region from outside would be that WFP beneficiaries would have access to greater variety of local produce which more closely resembles the refugees' culinary habits and that the CBT would stimulate growth in the local economy through the multiplier effect.

In order to assess the feasibility of CBT for CAR refugees in Likouala WFP's RoC Country Office requested that a market assessment be conducted to validate local and regional markets' capacity to support and respond to an increase in demand for key local food commodities. Notwithstanding further assessments which remain to be undertaken to complete a full CBT feasibility study¹¹, the market assessment is key towards providing insight on whether cash-based transfers using local markets are an advisable and appropriate means for humanitarian intervention in the region.

2.2: Market Assessment Methodology

From 26th November to 1st December 2015 a team of 4 WFP Staff (1 Regional Market Analyst from the Regional Bureau in Johannesburg), the RoC VAM (Vulnerability Analysis and Mapping Unit) Officer, The Head of WFP Sub-Office in Bétou and WFP's Bétou Sub-Office Field Aid Monitor, undertook a market study in Likouala. The market assessment team visited three different markets to assess local capacity and trade routes to and from Bétou and Impfondo. Three questionnaires

¹⁰ Official figure as of October 2015

¹¹ In addition to a markets assessment a full CBT feasibility study also requires financial, IT, security and supply chain sector assessments.

were collected by trader type (wholesaler and retailer) across the different markets for a total of 17 traders interviewed covering aspects of volumes of food traded, trader's storage capacity, food source, food prices, key trade constraints affecting traders, security and the repercussions of seasonality on trade. The market assessment built on secondary data from previous market and food security assessments in the region¹².

The overall objective of the market assessment is to validate if a CBT intervention is possible in Likouala without leading to negative side-effects. The main objective was broken down into the following sub-objectives:

- To assess seasonal implications on market access, food availability and trade volume in Likouala.
- To assess the number of food retailers, the type and quantity of food traded, storage capacity as well as retailers' capacity to increase trade on short notice.
- To assess the number of wholesalers, the type and quantity of food traded, storage capacity as well as wholesalers' capacity to increase trade on short notice.
- To collect and analyze monthly prices for key food commodities along year.
- To identify retail and wholesale traders' food source markets.
- To verify viability of food supply routes throughout the year in Likouala.
- To verify traders' willingness to participate in a WFP supported CBT for CAR refugees, and
- To identify key traders' constraints affecting a CBT intervention in Likouala outlining solutions to how these can be overcome.

Section 3: Limitations of the Market Assessment

Even though the market assessment undertook a thorough investigation of market functionality in Likouala it was not an exhaustive assessment. Below are limitations of the report readers are to make note of when making sense of the data presented:

- The market assessment has not covered all of Bétou and Impfondo's food sourcing markets due to lack of time. Markets in DRC which are heavily used by retailers in Bétou and Impfondo to source their fresh products (such as vegetables, beans, cassava and ground nuts) from were not directly covered by the market assessment. Secondary data was available but more recent reports than 2012 were not reviewed.
- During the Impfondo market visit the Impfondo market had been temporarily relocated to allow for cleaning and maintenance at the old market site. Traders were to return to their old location two days after the market assessment team's visit. Consequently many wholesalers were unavailable during our visit. The market assessment team managed to speak to 3 wholesalers, however, the team may have missed speaking to possibly some important and influential (in-terms of trade volumes) wholesalers in the region.
- The market assessment could only manage to estimate warehouse sizes. If a CBT is to take place in Likouala an accurate measurement of the warehouses is required to be undertaken to accurately confirm the full available storage capacity.
- Accurate food price data was only available for the week that the Market Team was visiting the markets in the region (25th November to 2nd December 2015). For food price data relating to other months of the year we had to ask traders to remember as best they could the price per kilo of a commodity they sold. Bi-monthly/monthly food price monitoring is currently not undertaken in Likouala and Sangha as well as many other regions of RoC.
- The lack of historical food price data meant that:
 - No analysis on market food price integration could be conducted which limits understanding on whether the assessed markets can absorb an increase in demand.

¹² UNHCR/WFP JAM 2014; WFP PDM September 2015; WFP CFSVA 2014

- The CBT transfer value mentioned in the report does not accurately reflect seasonal food price trends
- Due to weak secondary market information for the region and that the market assessment took place in November-December, it was only possible for the Assessment Team to get a guided approximation from the traders as to the full impact/limitations of the low river water levels during the dry-season on food trade volumes to Bétou and Impfondo.

Section 4: Market Assessment Findings

4.1: Bétou

Bétou is a small town located in the north of RoC on the banks of the Ubangi River, some 50kms south of the border with CAR. It has a total population of around 25,000 people of which 11,530 are CAR refugees and 3,235 are DRC refugees. The town (Bétou) lies in a food deficit region depending heavily on imported tubular (cassava) and grains such as rice and ground wheat to support the staple diet. Farming of land is scarcely undertaken and most of the locally produced food is wild bush meat, fish or minimal interaction farming such as wild fruits and nuts. Few vegetables are cultivated. Lack of appropriate food farming knowhow and a restrictive local government directive impeding refugees from farming fallow land are limiting food productivity in Bétou.

A large majority of Bétou's local population fall in the poor and very poor income level category. Many are unemployed and most households try to be self-sufficient by farming small plots of land, collecting wild fruits and undertaking artisanal fishing. Those few who do undertake salaried work, tend to be employed by the government, NGOs/UN and by the wood-mill factory. The wood-mill factory is the only industry present in the town and often has problems paying its workers' salary. Refugees have limited income and since they are not formally permitted to farm land, they are heavily depended on WFP food distributions to meet their daily nutritional requirements. Even though some refugees do buy goods from the market, this tends to be with money generated from selling WFP distributed food or with the little money they have earned through small errands.

Two types of private actors operate on the Bétou food market: retail and wholesale traders. There are approximately 10 wholesalers and 30 retailers operating in Bétou year-round. Even though 10 wholesalers are known to operate in Bétou, they all fall under 3 main wholesalers who organize most if not all transportation of wholesale imported goods to Bétou. All wholesale traders are related (family or close friends) and they are all originally from Mauritania having moved to Bétou over the last 10 years or so. The wholesalers control over 75% of the commercial food trade entering Bétou, the rest is controlled by the retailers. Wholesale traders are found mainly by the port and surrounding the main market area and they deal directly from their shops. On the other hand retailers tend to be by-and-large CAR refugees and tend to sell through stalls in the main central market which are rented from Bétou's wholesale traders. It is not an overstatement to assume that wholesalers have complete control of the commercial food market in Bétou.

All traders have to pay taxes (fixed costs) to sell on the Bétou market. These taxes refer to patents for wholesalers at 900,000 XAF per year, sales tax of 1,500 XAF per month, market tax for retailers at 100 XAF per day, and stall rental costs for retailer at 100 XAF per day. These taxes act as a barrier to entry to trade on the market and limit the amount of traders thus also limiting the amount of food on the market.

Bétou retailers mentioned that WFP distributed rice heavily affects their sales of rice. When WFP provides rice to the refugees, the price of rice on the market falls by a third. Wholesale traders mentioned that they stopped selling rice when WFP started its distributions in Bétou a few years

back as WFP's rice was undercutting their sales of the commodity. Wholesalers do have some stocked polished rice but they mentioned that they don't sell more than a bag of 20kg per month.

Monetization of WFP distributed food only seems to affect the price of rice on Bétou's market. No other WFP distributed food commodity (green peas, cooking oil and salt) was mentioned to have a similar effect on the price of food on the local market. Ready-to-Use Supplementary Food (RUSF also known as Plumpy Sup) though was also mentioned to be sold on the market following WFP distributions from health centres.

4.2: Impfondo

Impfondo lies approximately 285km downstream from Bétou on the Ubangi River. Impfondo is a marginally more populous town than Bétou with a total population of 49,000 of which 8,742 are refugees (1,142 CAR refugees and 7,600 DRC refugees). Impfondo has a similar market structure and surrounding context as Bétou as it is also found in a food deficit region depending heavily on imported cassava and grains such as rice and ground wheat to support the staple diet. Farming of land is also scarcely undertaken and most of the locally produced food is wild bush meat, fish or minimal interaction farming such as wild fruits and nuts. Few vegetables are cultivated in its surroundings. There is also a general lack of appropriate food farming knowhow and a restrictive local government directive impeding refugees from farming fallow land which is also implemented in Impfondo, limiting the town's food productivity.

Similar to Bétou, a large majority of the local population fall in the poor and very poor income bracket. Many are unemployed and most households try to be self-sufficient by farming small plots of land, collecting wild fruits and undertaking artisanal fishing. Those few, who do undertake salaried work, tend to be employed by the government, NGOs/UN, and by an international cocoa company with a branch in Impfondo. Refugees have limited income and since they are not formally permitted to farm land, they are heavily depended on WFP food distributions to meet their daily dietary requirements. Even though some refugees do buy goods from the market this tends to be with money generated from selling WFP distributed foods or with the little money they have earned through small errands.

Impfondo has around 12 wholesalers and 20 retailers who operate year-round. The wholesalers are found mainly by the riverside of the town and they deal directly from their shops. On the other hand retailers are closer to the center of town and sell products from their stalls.

Similar to Bétou, all traders in Impfondo have to pay taxes (fixed costs) to sell on the market. These taxes refer to patents for wholesalers at 900,000 XAF per year, sales tax of 1,500 XAF per month, market tax for retailers at 100 XAF per day, and stall rental costs for retail traders at 100 XAF per day. The taxes act as a barrier to entry to trade on the market and limit the amount of traders thus also limiting the amount of food on the market.

4.3: Source of food

Impfondo and Bétou's food sources are similar. Traders in these markets source the foods they sell from different markets. Food commodity source depends on the type of trader (retailer or wholesaler) and the season of the year (**Table 4**).

Table 4: Commodities sold by trader type in Bétou and Impfondo

Location	Retailer	Wholesaler
Bétou	Tubers, vegetables, fruits, fish, meat, beans, split peas, ground nuts and small quantities of salt, oil, sugar and rice	Large quantities of cooking oil, salt, and sugar
Impfondo		

Source: WFP RoC

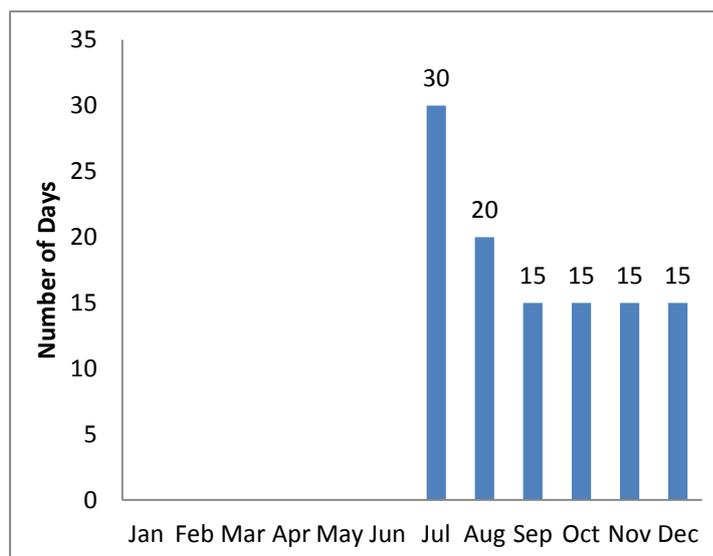
Highly perishable goods such as vegetables, fruits, fish and meat as well as tubers/tuber products (cassava and fofou), pulses (such as beans and split peas) in addition to ground nuts are sold solely by retailers in Bétou and Impfondo. Retailers source these commodities locally; mainly from markets across the river in DRC within a radius of 5-10kms from the town centres (see **Annex 3**). The supply markets for Bétou are: Zambie (a small village on the Ubangi River), Mawuya, and Goma (a small village on the Ubangi River) in DRC for brown beans and ground nuts; Brazzaville for salt, sugar and cooking oil. The supply markets for Impfondo are: Dongo in DRC for green beans, peas and ground nuts; Brazzaville for salt, sugar, cooking oil and rice while Cameroun for white beans. These DRC markets are in close proximity to Impfondo and Bétou and supply these towns with fresh produce year-round.

Fish, bush meat, cassava and cassava leaves (*saka saka*) are largely sourced locally even though some can come from nearby markets in DRC. These commodities (bush meat, cassava and *saka saka*) are available year round; however, the cassava harvested in the dry season is preferred by the CAR refugees in taste than that which is harvested in the wet season altering the commodity's desirability during different seasons of the year. Rice is also sold by retailers; however, to note in Bétou rice is only sold by retailers in small quantities and is only available during WFP food distributions when some of WFP's donated rice to the CAR refugees finds its way to the market stalls. Instead in Impfondo rice is more readily available on the local market. Another important commodity is caterpillars (both fresh and smoked), an important source of protein and a local delicacy. Caterpillars though are only readily available during the start of the wet season (August – October). Fish are more widely available in the wet season when the Ubangi River's water levels are higher than in the dry season.

Rice, cooking oil, salt and sugar in Bétou are mainly sold by wholesalers; however, as mentioned earlier in the report, wholesalers have stopped selling rice due to WFP's food distributions. The wholesalers' source for rice, cooking oil, salt and sugar is primarily from Brazzaville even though they are also known to procure from Cameroon through Bangui (capital of CAR found at around 150kms from Impfondo). Nevertheless, the main source remains Brazzaville 563kms away. Due to the high fluctuations in the Ubangi River's water levels between different seasons of the year wholesale restocking is only undertaken in the rainy months (July till December). Wholesaler pre-positioning of food is undertaken in December/January before the dry season (February – June) starts as the river is not navigable then for big boats/ships.

Wholesalers sell cooking oil, salt and sugar in wholesale quantities using 18kg (for salt and sugar) or 25 liters (for cooking oil) sizes. Retailers, also sell these goods on the local market but in smaller quantities. The retailers will buy the commodities from the wholesalers and re-package them into smaller quantities for retail sale.

Figure 8: Average no. of days it takes Bétou and Impfondo wholesalers to restock during the year



The proximity of the retail, fresh food source markets to Bétou and Impfondo allows restocking to be uninterrupted through-out the year and for it to take only between 1 to 3 days to deliver.

Instead wholesalers for both Bétou and Impfondo have mentioned that due to the large volumes they require they have problems restocking during the dry season due to the low levels of the Ubangi River. For about 6 months of the year (January – June) wholesale supply of food does not take place.

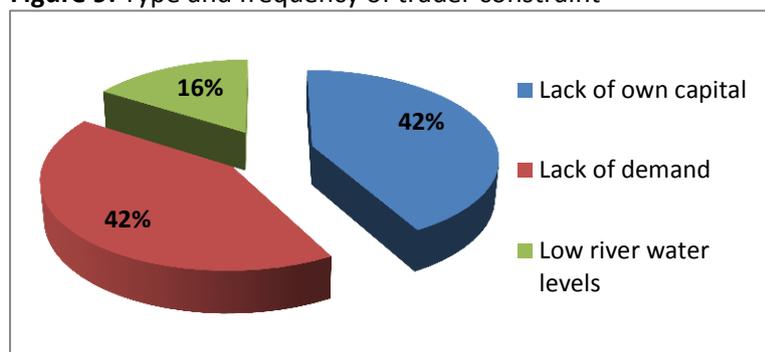
Source: WFP RoC

Moreover, during the wet season when the river is navigable, it takes approximately 15 to 30 days for wholesalers to restock from the moment they call their suppliers in Brazzaville and Bangui to the moment the supplies arrive in Bétou and Impfondo (**Figure 8**). ‘Raking’ of the river bed, a practice of removing silt from the river bed, would allow the river to be navigable for bigger ships throughout the full length of the year. Raking was undertaken on a yearly basis in the past (1990s) but was stopped due to excessive costs. The Congolese Minister of Environment however, has recently mentioned on broadcast TV that he is looking into restarting raking of the river in order to support the livelihoods of people living along the Ubangi River.

4.4: Trader constraints

The top constraints affecting trade were lack of own capital and lack of demand (**Figure 9**). Forty-two percent of traders, all of them retailers, mentioned lack of capital as their top constraint. On the other hand another forty-two percent of traders, this time all of them wholesalers, mentioned lack of demand as the top constraint affecting their trade. Other responses provided mentioned the low-lying river with 16% of traders as a key constraint to trade.

Figure 9: Type and frequency of trader constraint



A CBT intervention can address the top two constraints by providing refugees with extra capital to buy goods from the market. Hereby providing the traders with extra cash to run their business and support their livelihoods which in turn would create more demand for wholesaler products.

Source: WFP RC

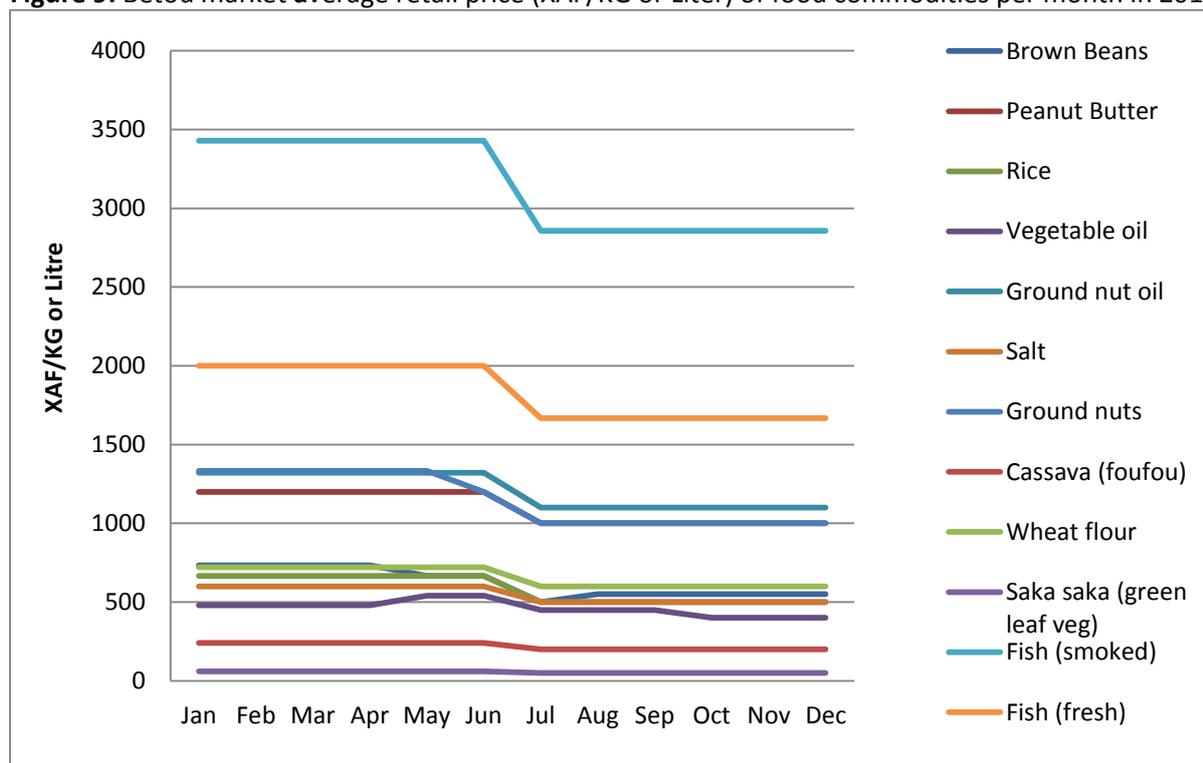
All wholesalers in Bétou and Impfondo mentioned to have a bank account. On the other hand two-thirds of Impfondo’s retailers mentioned to have a bank account compared to none for Bétou’s retailers. Impfondo has a bank based in the town while Bétou has no bank.

4.5: Food prices

Due to the lack of secondary food price data available for Bétou and Impfondo markets, the assessment sought to ask traders the typical prices they had charged per unit (kg or liter) by month in 2015. The results were rather surprising as both wholesalers and retailers mentioned that they keep their food prices constant throughout the year and that they would keep the prices the same even if demand for specific commodities would increase by 25% or more. When questioned further, it was clear that even though prices were staying constant quantities sold to the customers were not. This was especially evident for retailers who were employing a method they referred to as 'razement' when commodities were scarcer in the market. *Razement* translates to a process of under-weighing the product sold to the customer without the customer being aware of it. The most often used *razement* method was to level-off excess food bulging over the container. Some retailers though noted to prefer other ways of *razement* which were to use slightly smaller containers during dry-season months than in the rainy season or to fill the bottom of the container with some crumpled paper (effectively making the container smaller) when a commodity was scarce on the market.

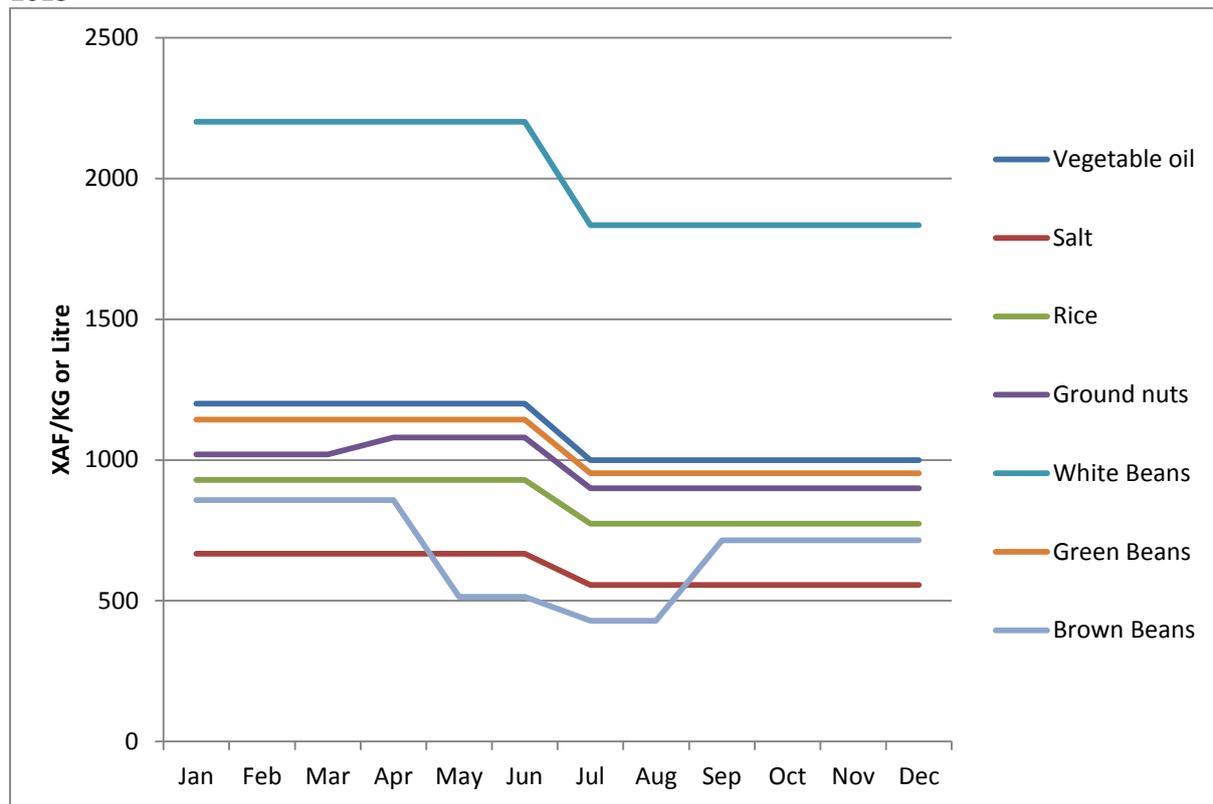
Through guided tests, *razement* reduced the weight by about one fifth or 200 grams per kg of beans sold. Wholesalers mentioned that they kept prices stable and that they did not undertake any forms of *razement*; however, this is not verified and monitoring of prices by weight should be conducted on both retailers and wholesalers. **Figures 9** and **10** (below) are graphs which depict the *razement* effect by increasing retail food commodity prices by 20% during the dry season (January – June).

Figure 9: Bétou market average retail price (XAF/KG or Litre) of food commodities per month in 2015



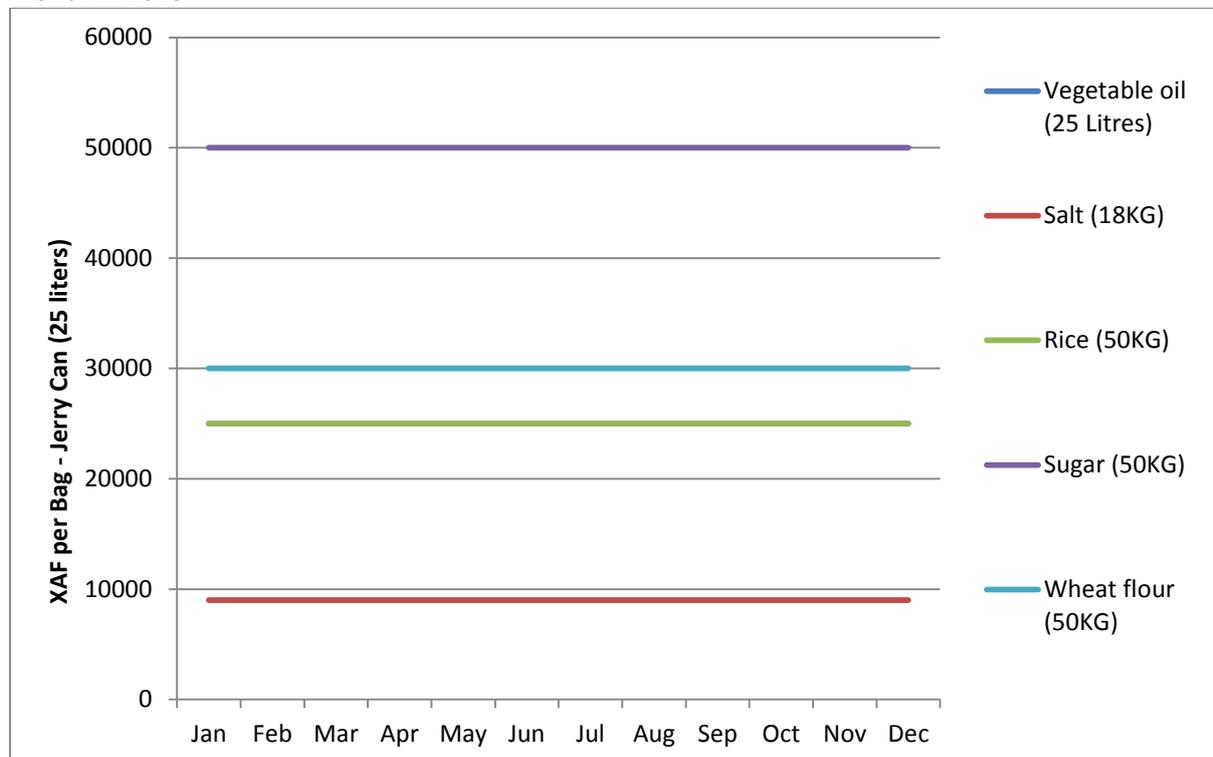
Source: WFP RoC

Figure 10: Impfondo market average retail price (XAF/KG or Liter) of food commodities per month in 2015



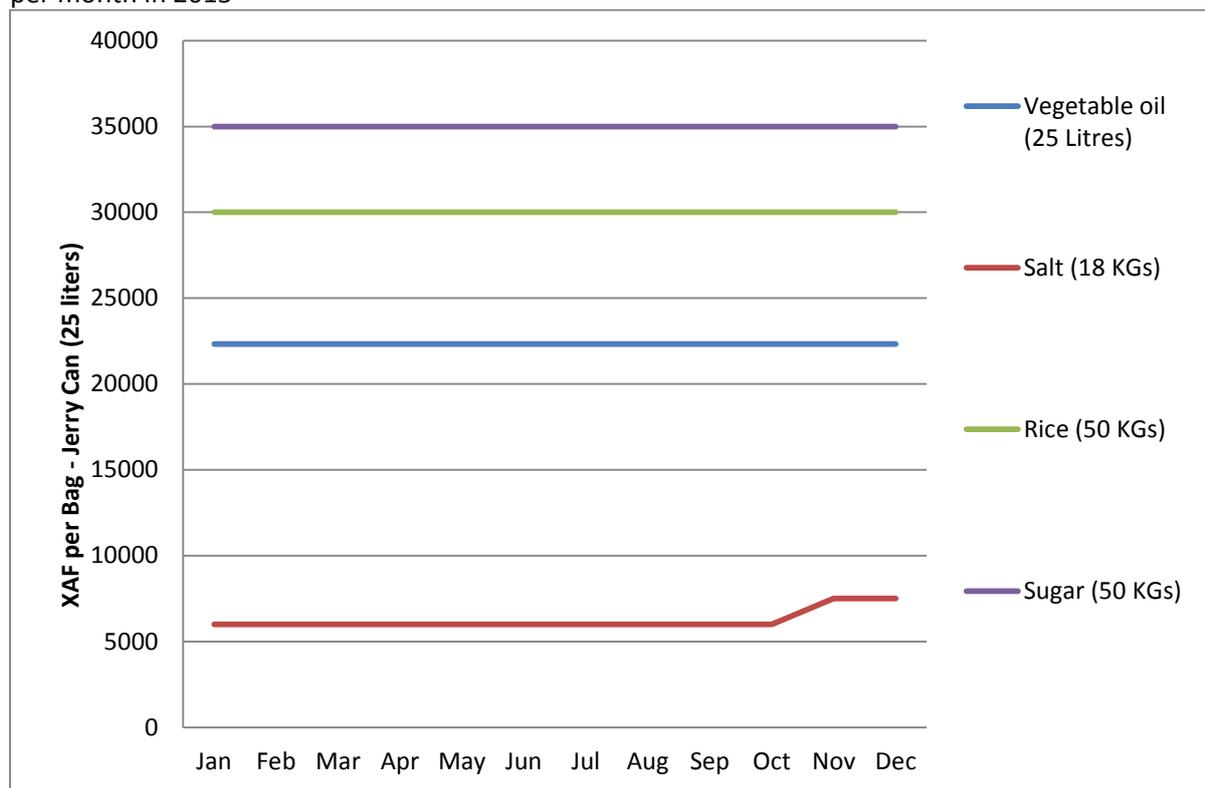
Source: WFP RoC

Figure 11: Bétou market average wholesaler food prices (XAF per 50Kg bag or 25 liter jerry can) per month in 2015



Source: WFP RoC

Figure 12: Impfondo market Average wholesaler food prices (XAF per 50Kg bag – 25 liter jerry can) per month in 2015



Source: WFP RoC

The food price data provided in **figures 9-12** is but an approximation of the true cost per kg of certain foods on the market. As is visible from the graphs prices in these markets are controlled. It is important also to recognize that these prices were provided by traders on recollection of what the food commodity prices were sold at on a month by month basis in 2015.

An operational food price monitoring system in Bétou and Impfondo is required to have more accurate food price data. The monitoring system should also include weighing of the foods to avoid collecting biased data affected by *razement*. This will help better calculate possible market stress; it will make the Omega Tool more accurate; and it will also allow for a more accurate transfer value to give to refugees. Early collection and weighing of foods will also enable to assess if the CBT intervention is having unintended effects on the price of foods on the market. Without an initial baseline it will not be possible to compare prices of a specific month to the same month in previous years. As it stands the current food price data is insufficient to adequately support the Omega Value calculation and to guide discourse on whether to opt for a CBT rather than an in-kind intervention.

Food Prices Recommendations:

- Monitoring of food prices to commence immediately in Bétou and Impfondo markets in order to construct a reliable and accurate food price baseline for the region and also for inclusion into the Omega Tool to calculate the Omega Value.
- Weighing of foods is essential when recording the prices due to the practice of ‘*razement*’ employed on both markets.

4.6: Infrastructure / Road Network

As shown by the map in **Annex 1** the main supply channels in Likouala are the Ubangi River during the wet season and a main road from Brazzaville to Bétou and Impfondo passing through Ouessou which is more frequently used during the dry season. Smaller fishermen boats called *pirogues* are used for movement and transportation of smaller volumes goods on the main and smaller rivers as well as the surrounding swamp.

Main roads connecting the major towns/urban centres in Likouala are a viable option as trade route. Even though these roads are either gravel or dirt roads with the exception of roads in and around Impfondo town centre, recent extensive maintenance has improved the region's road condition hereby improving their viability. This is especially the case for the road connecting Bétou with Ouessou (a city on the border with Cameroon). Logging companies have been widening this road making it motorable year round (also in the wet season) which was not the case a year ago. An issue to keep an eye out for though is the state of the bridges in the region which are in need of improvement and repair.

Infrastructure Recommendations:

- Monitor the viability of the rivers and roads in the region.
- Ensure a proper system of road and bridge maintenance is undertaken by the local authorities.

4.7: Storage facilities

For a CBT intervention to be successful and not have any negative side-effects it is essential that markets have adequate supply of food commodities to meet the surge in transfer-induced demand. This will ensure food prices on the local market do not increase to above average seasonal trends. For markets such as Bétou and Impfondo which find themselves isolated from the surrounding regions especially during the dry season, adequate warehouse storage capacity is essential to ensure there is enough supply of food stored at all times on the market, hereby keeping prices low.

The assessment team only had time to visit 13 of the 17 warehouses in Bétou. Estimates of the warehouse dimensions were taken and volume capacity was calculated (**Figure 13**). Even though precise accurate measurements need to be undertaken to be completely sure of the total warehouse storage capacity in Bétou, the initial indication is that the town has enough warehouse storage capacity to accommodate for total CAR refugee food requirements for the 6 months in the dry season when the town will be isolated from the surrounding regions.

Figure 13: Storage requirements versus capacity in Bétou's wholesale warehouses

Commodity	Storage requirements in Bétou (MT)				Total estimated rice storage capacity in Bétou warehouses (MT)
	Quantity required per day (MT)	Quantity required per month (MT)	Quantity required for 4 months (MT)	Quantity required for 6 months (MT)	
Rice	4.04	121.07	484.26	726.39	1,730.40
Split Peas	1.38	41.51	166.03	249.05	
Vegetable Oil	0.40	12.11	48.43	72.64	
SUPERCEREAL	0.52	15.57	62.26	93.39	
Salt	0.06	1.73	6.92	10.38	
Total	6.40	191.97	767.90	1,151.85	

Source: WFP RoC

Figure 14: Bétou’s 6 months warehouse storage capacity (as % of total)

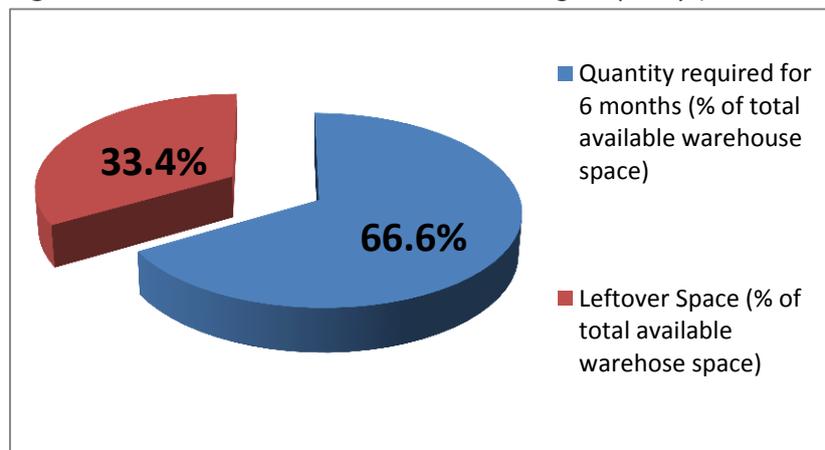


Figure 14, clearly illustrates Bétou’s adequate wholesaler storage capacity. The pie chart shows that 6 months of WFP food rations would fill up two-thirds of the available storage capacity leaving one-third free for other storage use. Moreover wholesalers mentioned that if needed they could construct a new warehouse as building materials are readily

available.

Source: WFP RoC

Due to the smaller CAR refugee numbers residing in and around Impfondo, storage requirements in Impfondo are much lower. **Figures 15** and **16** clearly outline the excess storage capacity in Impfondo vis-à-vis CBT requirements in the area. However, it is important to note that warehouse figures are an estimate. As mentioned earlier in **Section 5.2** due to the Impfondo market going through maintenance during the market assessment’s visit, many wholesale traders were not open limiting the market assessment to only interview the three wholesalers who were, hence figures come from taking an average of warehouse dimensions provided by the 3 wholesalers and multiplying by the total number of wholesalers.

Figure 15: Storage requirements versus capacity in Impfondo’s wholesale warehouses

Commodity	Storage requirements in Impfondo (MT)				Total estimated rice storage capacity in Impfondo warehouses (MT)
	Quantity required per day (MT)	Quantity required per month (MT)	Quantity required for 4 months (MT)	Quantity required for 6 months (MT)	
Rice	0.40	11.99	47.96	71.95	2,148.2
Split Peas	0.14	4.11	16.44	24.67	
Vegetable Oil	0.04	1.20	4.80	7.19	
SUPERCEREAL	0.05	1.54	6.17	9.25	
Salt	0.01	0.17	0.69	1.03	
Total	0.63	19.01	76.06	114.09	

Source: WFP RoC

Figure 16: Impfondo's 6 months warehouse storage capacity (% of total)

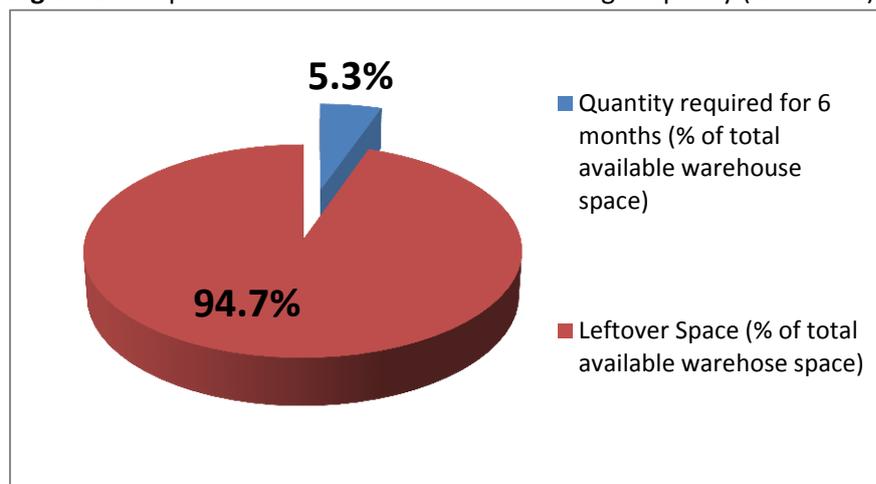


Figure 16, clearly illustrates Impfondo's adequate wholesaler storage capacity. The pie chart shows that 6 months of prepositioning WFP food rations, used as basis for the refugee food requirements, would fill-up only 5.3% of the available storage capacity leaving 94.7% free for storage use.

Source: WFP RoC

The storage capabilities findings confirm that a CBT system can be supported on Bétou and Impfondo markets as the food requirements for the CAR refugees can be adequately catered for. The next step will be for further assessments (Supply Chain, Financial, ICT, and Security) to be undertaken, validating the feasibility of a CBT in the region.

A few steps though need to be undertaken before a CBT can be set-up in the region. First, accurate measurement of the dimensions of all the available warehouses which can be used for the CBT needs to be undertaken. Second, Bétou warehouse owners need to be trained on WFP standard warehouse management and storage procedures. This is essential as many warehouses especially the smaller ones had no ventilation system and appeared to have rat infestations. Third, traders need to be fully debriefed on how much food they need to supply and when they need to have the food supplied by. Fourth, a decision needs to be made on how and whom the CAR refugees are going to access their food from. As mentioned in **Section 5.3** fresh produce such as vegetables, tubers, as well as ground nuts and beans are sold solely by retailers while less-perishable items such as cooking oil, rice (before WFP's arrival), salt and sugar are sold in large quantities by the wholesalers. The CBT intervention should seek not to affect this balance and a CBT working group should be set up with representatives from local actors to ensure that no trader group loses out due to the CBT.

An extra point to make note of is that CAR refugees have highlighted preference for local foods such as cassava and beans. Cassava is grown locally in ample quantities and therefore it would be a useful addition to the refugees' food basket replacing rice. This would have implication on warehouse storage capacities as less rice would be needed than expected as cassava is procured locally and sold by retailers. However, even though cassava is grown throughout the year, its flavour is known to change dramatically between dry and wet seasons. There is outright refugee preference for cassava grown in the dry season than during the wet season. This would mean that wholesalers would have to ensure that appropriate back-up stocks of rice are available during the wet season.

Storage Facility Recommendations:

- Identify the warehouses available for the CBT
- Take accurate dimension measurements of all CBT warehouses
- Train warehouse owners on WFP standard warehouse management and storage procedures.
- Inform wholesalers on what foods they need to import, how much food they need to import of and by when.
- Identify which traders (wholesalers and retailers) are going to sell which commodity.
- Setting-up a CBT Working Group per site (Bétou & Impfondo) with representatives from the key stakeholders is recommended.

4.8: Telecommunications

Likouala is served by two mobile phone networks: Airtel and MTN. Airtel has been based in the region for several years now but its coverage is unreliable as it is often disabled for a few days running. MTN has been operating in Impfondo for several years and has recently (November 2015) also expanded to Bétou. MTN coverage quality is similar to that of Airtel. A CBT intervention in the region would therefore have to ensure the phone network companies improve reliability and coverage of their network if the CBT will be using mobile phones as modality transfer mechanism.

Telecommunications Recommendations:

- Meetings with Airtel and MTN in their country offices in Brazzaville is required to understand the feasibility of expanding network coverage in the region and ensuring their networks' quality of coverage is improved (limit network cuts)
- Assess the feasibility of conducting a CBT through mobile phones

4.9: Security

There were no security issues to report of pertaining the potential use of CBT. Moreover, when asking traders, government officials and UN officers alike, all respondent mentioned that Likouala is also not affected by petty crime.

Security Recommendations:

- Even though there do not seem not to be any security issues a complete UN security assessment is nevertheless recommended to identify the possible security risks.

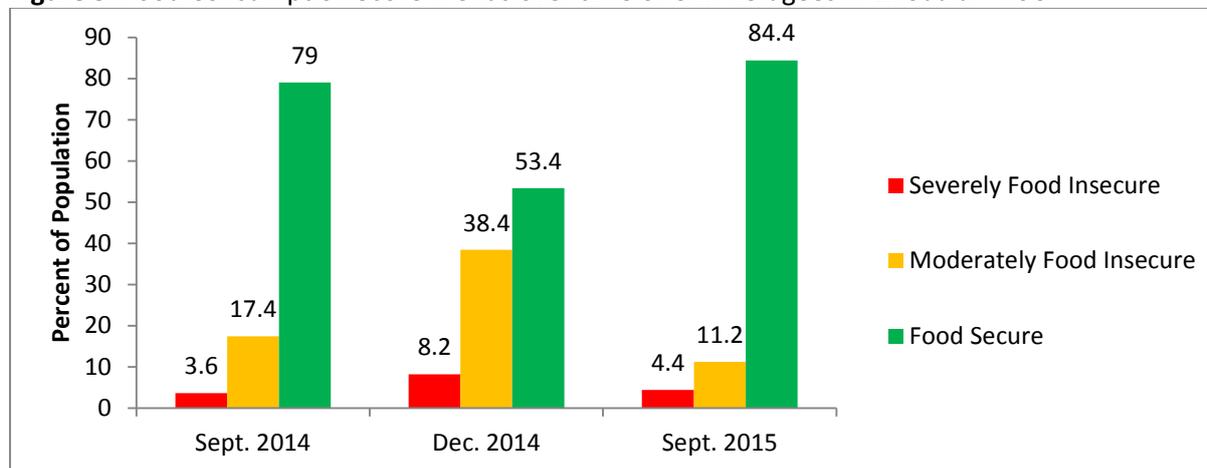
Section 5: CAR Refugee Food Security in RoC and the implications on the most appropriate intervention modality

5.1: CAR Refugee Food Security

The refugees' general food consumption rates have been improving over the past year due to WFP food distributions. The most recent assessment conducted in September 2015 showed a general improvement in the quantity of foods consumed by the refugees. The food consumption score (FCS), a measure of food consumed by household over the prior 7 days, stood at 84.4% of surveyed refugees being food secure while 11.2% of them were found to be moderately food insecure and 4.4% severely food insecure.

This is a big improvement compared to the previous assessment done in December 2014, which took place shortly after the arrival of new CAR refugees into RoC, where 53.4% of the surveyed population were found to be food secure while 38.4% and 8.2% were found to be respectively moderately and severely food insecure (**Figure 5**).

Figure 5: Food Consumption Score Trends over time of CAR Refugees in Likouala – RoC



Source: VAM RoC

From a series of WFP and partner food security assessments, malnutrition levels for CAR refugee children between 6-59 months of age were found to be serious. GAM rates which were already high in January 2015 and rose further in March 2015 to 14.3% of the population, getting close to the critical 15% scenario when a serious nutrition emergency is to be announced. In particular the high SAM rates are a cause for concern. Children with severe acute malnutrition (SAM) may have a high risk of death and the high SAM rate may indicate that children are coming late to health centres or that the MAM treatment is not working.

In response WFP started supplementary feeding to CAR refugees in July 2015 to treat moderate acute malnutrition (MAM) in children 6-59 months old and pregnant and lactating women. The supplementary feeding programme is implemented through health centres and provides Plumpy Sup (ready to use supplementary food) to children and Supercereal to women. Below are the most recent malnutrition assessment reports. Even though these cannot be directly compared due to slight differences in methodology used, they nevertheless are a useful indication of the changes in the nutritional status of CAR refugees over time. The most recent PDM survey in September 2015 showed that the children's nutritional situation had improved as MAM rates fell from 8.6% to 4.2% and GAM rates decreased from 14.3% to 10% (**Table 1** below). However, the high presence of severe malnutrition (SAM) cases remains a serious concern in particular since the supplementary feeding

programme which took place from July – September 2015 has stopped as of October 2015, due to insufficient stock and funds. As a consequence a worsening of the children’s nutritional status is expected.

Table 1: Nutrition Rates for CAR Refugee Children 6-59 Months

Degree of Malnutrition	SMART Survey Data January 2015	Screening Survey Data March 2015	PDM Data September 2015
Global Acute Malnutrition (GAM)	13,60%	14,30%	10%
Moderate Acute Malnutrition (MAM)	7,60%	8,60%	4.2%
Severe Acute Malnutrition (SAM)	6%	5,70%	5.8%

Source: VAM RoC

The CARI console¹³ effectively shows the key food security indicators for the region. **Table 2** shows the results of the PDM conducted in September 2015 and covers data solely for CAR refugees in RoC. In addition to the FCS, the CARI console illustrates refugee data on economic vulnerability and asset depletion rates. Through CARI the combined indicators help provide a better outline of the vulnerability and resilience levels of refugees faced with sudden shocks. In September, 46.4% of the population was spending over 50% of their incomes on their own food consumption needs. More specifically 14.4% of the population was spending between 50.01% and 64.99% of their incomes on household food needs; while 15.3% and 16.7% were spending respectively between 65% – 74.99% and above 75% of their incomes on their household food needs.

Regarding the coping strategy index 39.7% of the population was found to make use of emergency coping strategies at least once over the last 30 days. While 15.4% of the surveyed population were found to have used crisis coping strategies and 22.8% were found to have used stress coping strategies at least once over the past 30 days. Only 22.1% of the surveyed population was reported not to have used any negative coping strategies over the previous 30 days.

The prevalence of food insecurity, measured by the Food Security index (an index combining the food consumption score, food expenditure share and coping strategy indicators), for the CAR refugee population was found to be 62.8%. This is worrying as the survey was undertaken during a period when WFP was intervening with food distributions. Now that WFP’s distributions of supercereal and plumpy sup have stopped, a worsening of the food security situation is to be expected.

¹³ WFP 2015a, CARI Console: Consolidate Approach for Reporting Indicators of Food Security is a WFP developed approach to address the multiple dimensions of food security with transparent indicators which are consistent with internationally accepted food security concept. More information can be found at <https://resources.vam.wfp.org/CARI>

Table 2: CARI Console for CAR Refugees in RoC September 2015

Domain and household indicators		Indicator	Food Secure	Marginally Food Secure	Moderately Food Insecure	Severely Food Insecure
Current Status	Food Consumption	Food Consumption Score	84.40%	-	11.20%	4.40%
Coping Capacity	Economic Vulnerability	Food expenditure share	53.70%	14.40%	15.30%	16.70%
	Asset Depletion	Livelihood coping strategy categories	22.10%	22.80%	15.40%	39.70%
FSI Shares			12.30%	24.90%	57.50%	5.30%
Prevalence of Food Insecure Households CAR Refugees					62.80%	

Source: VAM RoC

Compared to the food security CARI baseline undertaken for the JAM 2014, household food insecurity levels for CAR refugees have worsened by 6% from 56.8% to 62.8% of the CAR refugee population.

CAR refugees in RoC have limited assets and by RoC law are not allowed to work the land. WFP's food rations to CAR refugees therefore provide the refugees with the minimum energy requirement of 2,100 K/Cal. The rations consists of rice, beans, fortified cooking oil, Supercereal and iodized salt in the quantities provided in **Table 3** below.

Table 3: WFP CAR Refugee General Food Ration 2015

Commodity	CAR Ration (grams)	Food Origin
Rice	350	Japan
Split Peas	120	Ukraine
Fortified Cooking Oil	35	Indonesia
Supercereal	45	South Africa
Iodized Salt	5	Namibia
Plumpy sup	250 (to pregnant & lactating women & children 6 – 59 months)	France

Source: WFP RoC

5.2: Implications of CAR Refugees' food security trends on Likouala intervention modality

Even though WFP's food distributions have successfully managed to improve CAR refugees' food security rates, the food support provided has been faced with difficulties. A high percentage of CAR refugees are notably selling part or all of the food they are receiving from WFP on the local market, hereby reducing the refugees' food quality intake and distorting food prices on the local market. Moreover, due to seasonality trends it is very expensive to transport food up the River Ubangi (main supply route) to Bétou and Impfondo during the dry season (January – June). Pre-positioning would suffice in these situations; however, the dry season happens to coincide with the period of high refugee influx to RoC from CAR due to drier road conditions, hereby prompting usually to an increase in food distribution requirements during this period. Finally, there are increasing calls from the CAR refugees in Likouala to receive cash transfers instead of food in-kind as they are 'getting-

word' from CAR refugees in DRC that WFP is providing the CAR refugees in DRC with cash transfers rather than food in-kind.

A 2014 JAM Report in Likouala found that notwithstanding the complete food ration WFP provides CAR refugees with, 3.2% of the refugees reported selling the entirety of the food rations they had received and a further 41.8% of the refugees mentioned selling part of the food they received from WFP. From those who sold WFP food rations 11% mentioned to have used the money to buy non-food items (of which 1% alcohol and tobacco) while 54% bought other food products and 35% bought both other food products and household items (such as soap, utensils, etc.). Subsequent PDMs have shown that the percent of refugees selling WFP food has not diminished over time.

When questioned further to find the reason behind this high rate of monetization of WFP distributed food, 91% of refugee households mentioned that they believe the food ration provided to them was not enough to meet their household's food requirements. Moreover from WFP's September 2015 PDM, 61.3% of households mentioned that they were not satisfied with the type of food they received. This is an indication that the food WFP is distributing does not meet the refugees' culinary habits. Indeed one refugee mentioned that the food they received from WFP did not make sense to them since providing rice with beans (split peas) was similar to providing two staple foods, the likes of pasta and rice in terms of how they (the CAR population) combine and consume these foods.

When looking at specialized nutritious foods provided, feedback was mixed. Supercereal was very much liked and consumed by the target group, however, Plumpy Sup, which is given to treat moderate-acute malnutrition in children between 6-59 months of age, was noted not to be consumed much by the refugees and levels of monetization of the latter on the local market were high. This is an indication that the refugee mothers need further sensitization on the nutritious benefits of the foods they receive and the importance of the food's correct utilization. Sensitization on WFP's food ration should also ensure beneficiaries know what foods and volumes they have the right to receive as 65% of refugees noted that they did not know the food basket and ration quantities they have right to.

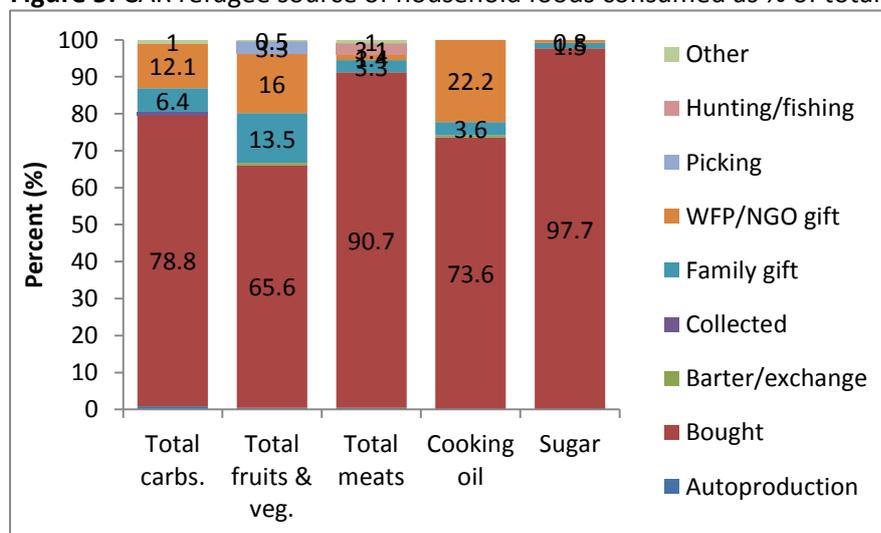
A CBT programme would address this imbalance by allowing the households to choose the foods they purchase for personal consumption. A high percentage of interviewed CAR refugee households mentioned that they would prefer to receive cash over food in-kind. Already nearly 63% of households who had received in-kind distributions mentioned to have at least one other source of income in addition to the food aid they were receiving (**Figure 5**, below) and that they (the CAR refugees) were using this income to buy local foods of their preference from the market. If WFP was to provide cash or vouchers, the extra household income would support the refugees in customizing their diet linking it to food of their choice.

It is important to note though that WFP's intervention in support of CAR refugees in Likouala is aimed primarily at ensuring the refugees' food security levels are met with acceptable nutrient levels. A diverse food basket with specialized and fortified foods aimed at improving specific nutrient deficiencies in the refugees' diet such as fortified cooking oil, iodized salt, Supercereal and Plumpy Sup are key to ensure CAR refugee's acceptable nutrition levels. It is unlikely that Bétou and Impfondo markets will be able to supply these nutritious foods at an affordable rate due to the remoteness of these markets. These foods will therefore still need to be provided even if a CBT intervention takes place in order to address the refugees' identified high malnutrition rates.

Figure 5 illustrates that a majority of CAR refugees already buy from the local market complementing their food need requirements. This is an indication that local markets in Bétou and Impfondo are already providing for part of the refugees' food needs therefore reducing the effective

extra demand that a WFP CBT intervention would place on local markets' food supply, hereby strengthening the case towards moving to a CBT intervention for the region.

Figure 5: CAR refugee source of household foods consumed as % of total type of food – April 2014



The CAR refugees' preferred food diet is made of: fofou (cassava flour), beans, fish, saka saka (green leafy vegetables), oil, and salt. This is clearly illustrated by **Figure 5** where 90 percent of respondents were buying fofou from the market. Eighty-two percent of refugees mentioned buying green leafy vegetables (such as *saka saka*) from the market and 85 percent

Source: RoC CAR JAM Report – May 2014

of respondents noted that they bought fish from local markets. Sugar was heavily purchased from the local market at nearly 98 percent and close to 74 percent of refugees were purchasing cooking oil from the market signaling that they required more cooking oil to meet their household food requirements.

Local Food Habits Recommendations:

- As cassava has been singled out as a prime commodity for CAR refugees' consumption, verify cassava volumes in source markets (local and in DRC) throughout the year and identify if there is enough cassava to meet the refugees' demand.
- Verify feasibility of replacing rice with cassava. Look at extra costs this may imply as well as getting refugees' feedback (if positive or negative) regarding such a switch
- Identify who would be the prime seller of cassava; the retailer or the wholesaler? At the moment it is the retailer but they may not be able to manage the high levels of trade costs, volumes and storage of such high in demand food commodities.

5.3: Omega and Alpha Values

The Omega Value¹⁴ assesses the nutrient cost effectiveness of various humanitarian response choices (in-kind, cash, vouchers and hybrid) by comparing the nutritional value and cost implications of different bundles of food baskets to achieve the nutrition and dietary objectives of the programme. It is a standard WFP tool used to help identify the most appropriate intervention modality. The Omega value is not provided in this market assessment report as not all related costs were available (e.g. Likouala food price trend analysis, voucher printing costs, contract and service provider costs, etc.). This will be something for the CBT Unit/Working Group to work on and finalize.

¹⁴ WFP 2015b, Omega Value.

In the absence of the Omega Value, the Alpha Value can be considered as a proxy, although it does have limitations. The Alpha Value is the ratio of the local market value of a transfer (measured in retail prices) to the operational cost to WFP of delivering the same transfer (quantity and quality) in-kind at the same market location. As the Alpha Value increases, the in-kind transfer becomes more efficient. In other words a lower than 1 Alpha Value indicates that it is more costly to WFP to import food than to procure it from the local market. An Alpha Value of 1 indicates that the food items cost the same whether they are bought on the local market or imported by WFP. While an Alpha Value greater than 1 indicates that WFP imported foods would be more cost-efficient to the Organization than purchasing the same foods on the local market.

The Alpha Value, while it analyses the efficiency of the specific response options, it cannot determine the best response option when it is used as a stand-alone tool. It needs to be complemented with other indicators such as household preferences and market access to assess the effectiveness of the response. In addition, it is considered not the best indicator in deciding cost efficiency considering: 1) it assumes we provide the exact same food basket as in-kind when we do cash or voucher operation, which is usually not the case and does not take into account the food diversity which cash or voucher can provide; and 2) cost of transfer (C&V delivery) and other costs (C&V other) are not considered in the calculation.

Table 4 and **5** provide the Alpha Value for Bétou market comparing different seasons of the year dry season (January – June) and wet season (July – December), as these seasons heavily affect navigation on the Ubangi River.

Table 4: Alpha Value for Bétou market, during the dry season (January to June)

Costs	Rice (Mt)	Beans (Mt)	Vegetable oil (Mt)	Salt (Mt)
International price (US \$)	336	425	753	80
International Transport cost (US \$)	129	100	110	95
Transport cost (LTSH) (US \$)	466	466	466	466
Total cost for WFP (US \$)	931	991	1,329	641
Price on Bétou local market (US \$)	833	694	2,315	833
Alpha-Value	0.89	0.70	1.74	1.30

Source: WFP RoC

Table 5: Alpha Value for Bétou market, during the wet season (July to December)

Costs	Rice (Mt)	Beans (Mt)	Vegetable oil (Mt)	Salt (Mt)
International price (US \$)	336	425	753	80
International Transport cost (US \$)	129	100	110	95
Transport cost (LTSH) (US \$)	466	466	466	466
Total cost for WFP (US \$)	931	991	1,329	641
Price on Bétou local market (US \$)	833	639	1,667	667
Alpha-Value	0.89	0.64	1.25	1.04

Source: WFP RoC

Alpha Values for Bétou throughout the year are below 1 for rice and beans but above 1 for vegetable oil and salt. This means that it is cheaper for WFP to buy rice and beans on the local market than for WFP to import the foods. Alpha Values for vegetable oil and salt instead are above 1 meaning that it is cheaper for WFP to import the goods than by it on the local market.

Tables 6 and 7 provide the Alpha Value for Bétou market comparing different seasons of the year dry season (January – June) and wet season (July – December), as these seasons heavily affect navigation on the Ubangi River.

Table 6: Alpha Value for Impfondo market, during the dry season (January to June)

Costs	Rice (Mt)	Beans (Mt)	Vegetable oil (Mt)	Salt (Mt)
International price (US \$)	336	425	753	80
International Transport cost (US \$)	129	100	110	95
Transport cost (LTSH) (US \$)	466	466	466	466
Total cost for WFP (US \$)	931	991	1329	641
Price on Impfondo local market (US \$)	1000	1190	1488	556
Alpha-Value	1.1	1.2	1.1	0.9

Source: WFP RoC

Table 7: Alpha Value for Impfondo market, during the wet season (July to December)

Costs	Rice (Mt)	Beans (Mt)	Vegetable oil (Mt)	Salt (Mt)
International price (US \$)	336	425	753	80
International Transport cost (US \$)	129	100	110	95
Transport cost (LTSH) (US \$)	466	466	466	466
Total cost for WFP (US \$)	931	991	1329	641
Price on Impfondo local market (US \$)	1000	1190	1488	556
Alpha-Value	1.1	1.2	1.1	0.9

Source: WFP RoC

Alpha Values for Impfondo throughout the year are above 1 for all commodities apart from salt. This means that it is cheaper for WFP to import rice, beans and vegetable oil than to buy the commodities on the local market. Salt on the other hand is cheaper on the local market than if it was imported.

The information on Alpha Values in the above tables (**Table 4 – 7**) has important connotations for CBT in Bétou and Impfondo as they show that local food is not always the cheapest option. However, due to CAR refugee high malnutrition rates in Bétou and Impfondo, WFP’s intervention in the region should not only look at cost efficiencies when considering the most appropriate intervention modality to support CAR refugee food need requirements. Nutrition needs are to be carefully assessed too.

Nutritional aspects are key to consider for the CBT intervention. Details of the most appropriate and diverse local food basket (type of food and quantities/rations) to complement WFP’s in-kind food will be instrumental in ensuring that refugee malnutrition rates are reduced and that monetization of WFP’s foods is limited. The CBT intervention can further be used as a platform for delivery of nutrition-sensitive messages including Water Sanitation and Hygiene (WASH), Infant and Young Child Feeding (IYCF) and other health messages and vaccinations, Vitamin A distributions, etc.

Section 6: Conclusions

The Likouala region is besieged by market functionality issues, namely: seasonality, transportation, telecommunications and the region's remoteness, hereby increasing the risk of a CBT intervention pushing-up food prices above their average levels for the time of year. Storage capacity in Bétou and Impfondo though, is more than adequate to support the demand requirement for the six months the Ubangi River, the main supply route to the area, will not be navigable. Bétou and Impfondo are also well serviced throughout the year vis-a-vis fresh food produced (fish, vegetables and cassava) from neighbouring DRC. Therefore, the market assessment has found that a CBT intervention could be feasible in the region. The CBT will however have to be very well thought-through and well-prepared in advance to address all the bottlenecks identified in this report.

Aspects such as food price monitoring, validation of volumes of cassava ensuring adequate supply to meet local demand, training on warehouse storage management to local wholesale traders, setting-up of a local CBT working group with local stakeholder representatives and sensitization of beneficiaries on the new modality, will all have to be commenced immediately and monitoring of the CBT will have to be undertaken throughout the intervention.

The market assessment has found that not only would a CBT be feasible in the region but that it would also be supportive of CAR refugees' needs, as they (the refugees) have already voiced their preference for a CBT intervention over receiving WFP food in-kind. Previous reports found that a high proportion of CAR refugees were monetizing WFP food as an income generating activity in order to buy commodities to complement their daily food and non-food needs. A CBT would give the beneficiaries (CAR refugees) the possibility of buying the foods they require directly from the local market, hereby enabling the refugees to consume more local/traditional food commodities as well as benefitting local traders and the local economy.

Ensuring an improved nutritional status of the CAR refugees' through the CBT intervention in the region is crucial. WFP food based transfers do not seem, at least initially, to have been sufficient in maintaining the CAR refugees' healthy nutritional status, hereby underlining that the CAR refugees' malnutrition is not arising from food issues alone. Any CBTs should be nutrition-sensitive to ensure the full benefits of the CBT intervention. WFP partners and NGOs based in the region should be consulted to ensure that other potential causes of malnutrition e.g. IYCF aspects are addressed.

Moreover, the remoteness of Bétou and Impfondo from other urban areas where fortified foods can be more easily and cheaply found is another important constraint the CBT intervention has to overcome. To address this constraint the market assessment is recommending that WFP fortified and specialized nutritious foods (fortified vegetable cooking oil, Supercereal Plus, Plumpy Sup and iodized salt) continue to be provided to CAR refugees in addition to a CBT. The CBT component will allow the refugees to complement WFP nutritious foods with local fresh food commodities such as cassava, *saka saka*, fish, meat, local beans and ground nuts. This should ensure refugee nutrient levels remain high while also ensuring food commodities which more closely resemble refugee traditional household food diets are consumed. This hybrid combination of WFP in-kind food with a CBT should also reduce the high rate of WFP food monetization and should ensure the local economy is boosted as a result of WFP's intervention.

At this stage further assessments will have to be undertaken to complete the CBT feasibility study paving the way for the CBT intervention. The required assessments are notably the Programme Capacity, Finance, Supply Chain, ICT and Security assessments.

Section 7: Recommendations

Structural Recommendations:

- Further CBT sector assessments (Supply Chain, Financial, ICT, and Security) to be undertaken, completing the CBT feasibility study in the region ahead of CBT implementation.
- Even though there do not seem to be any security issues, a complete UN security assessment is recommended.
- Close collaboration with the WFP Nutrition Unit is recommended to ensure that CBT interventions in Likouala are nutrition-sensitive. Their insight in recommending the most appropriate local food basket (type of food and quantities/rations) to complement WFP's in-kind food will be instrumental in ensuring refugee malnutrition rates reduce and that utilization of WFP's food is ensured.
- A causal analysis study is recommended to enable a more in-depth understanding of the malnutrition situation affecting CAR refugees. It is important to understand the health infrastructure in place and the capacity to manage CMAM (SAM + MAM management) as well as diseases.
- All involved parties are recommended to coordinate with nutrition related interventions and ensure that nutrition-sensitive elements are incorporated into the CBT intervention. For example nutrition messaging around IYCF (infant and young child feeding) is crucial and can be attached to a more broad social behavior change communication campaign (SBCC).
- Set-up a CBT working group per site (Bétou & Impfondo) with representatives from the key stakeholders.

CBT Operational Recommendations:

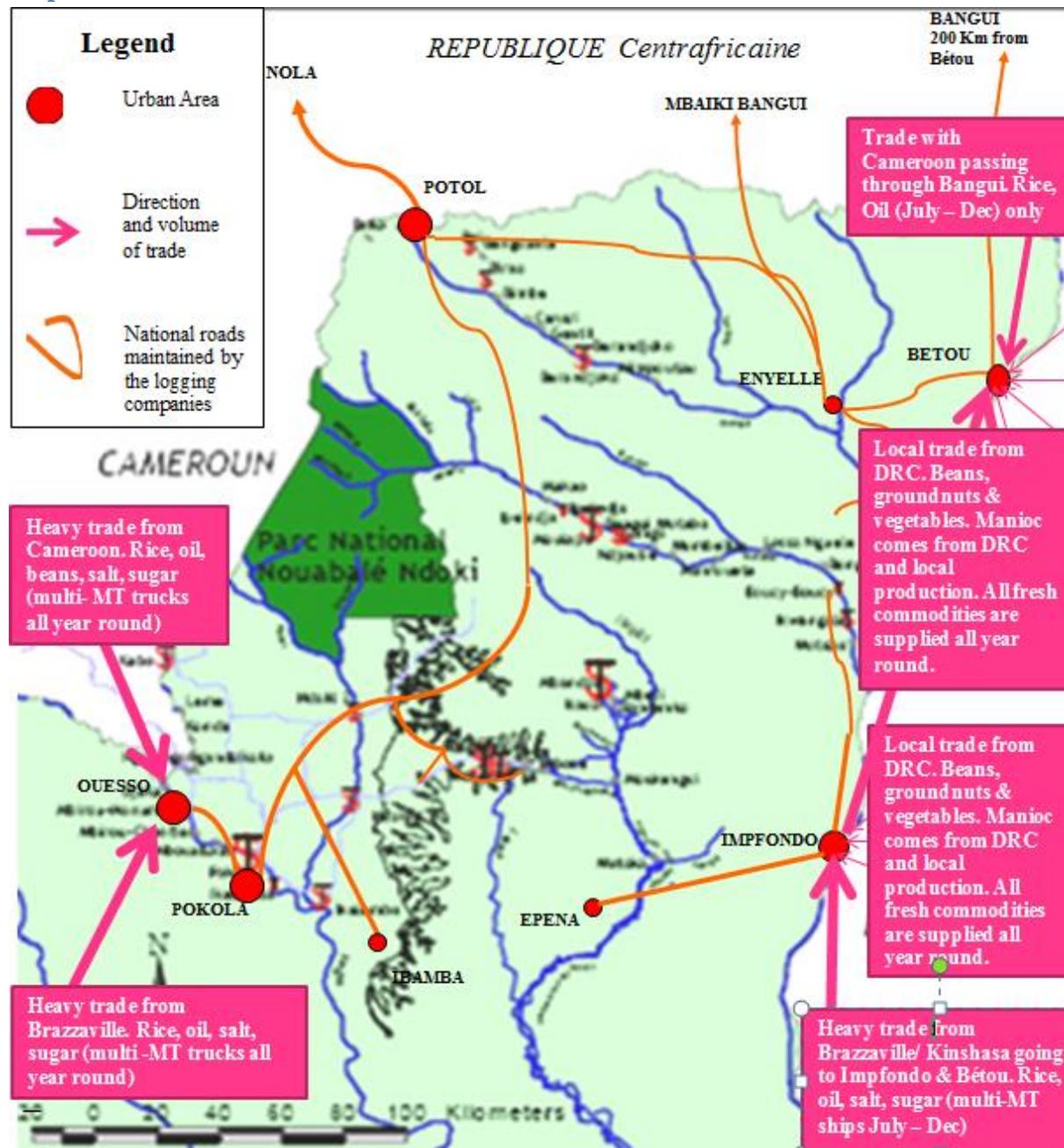
- Due to the numerous steps which need to be taken to prepare Bétou and Impfondo to implementing CBT, it is recommended that the CBT intervention not be commenced before July 2016. This will allow the other CBT sector assessments to be completed. It will also allow WFP Sub-Offices in Bétou and Impfondo to phase-out DRC refugee support operations complete the ORA school feeding operation. Starting CBT distributions in July would also ensure markets are better connected to food supply sources as July represents the start of the rainy season and the Ubangi River will be navigable.
- Starting in July 2016 will also allow for completion of the phase-out of in-kind distribution to DRC refugees in Likouala before commencing CBT for CAR refugees in Likouala as planned since running two separate distribution systems (one food in-kind and the other CBT) may spark tensions between the two refugee communities (CAR and DRC).
- Review access constraints to Bétou market for CAR refugees residing in the Ikpenbele site 20kms north from Bétou along the Ubangi River and decide what transfer modality will be used for CAR refugees residing in this site, whether it will be cash, vouchers or in-kind.
- Since cassava has been singled out as a prime commodity for CAR refugees' consumption, verify cassava volumes in source markets (local and in DRC) throughout the year and identify if there is enough cassava to meet the refugees' demand.
- Assess feasibility of replacing rice with cassava. Look at extra costs this may imply, the nutritional implications for such a switch as well as getting the refugees' feedback (if positive or negative) regarding the switch.
- Identify which traders (wholesalers and retailers) are going to sell which commodity. Specifically identify who would be the prime seller of cassava; the retailer or the wholesaler? At the moment it is the retailer but they may not be able to manage the high trade costs, volumes and storage of such high in demand food commodities.
- Assess the feasibility of conducting a CBT through mobile phones. Moreover, meet with Airtel and MTN in Brazzaville to understand the feasibility of expanding network coverage in the region and ensuring their networks' coverage quality is improved (limit network cuts).

Market Recommendations:

- Complete the Omega Value for the CBT in Likouala.
- Monitoring of food prices to commence immediately in Bétou and Impfondo markets in order to construct a reliable and accurate food price baseline for the region.
- Collect food prices of commodities the CAR refugees will be purchasing from the market.
- Weighing of foods is essential when recording the prices due to the practice of '*razement*' employed on both markets.
- Identify the warehouses available for the CBT and take accurate dimension measurements of all warehouses which will be used for the CBT intervention.
- Train warehouse owners on WFP standard warehouse management and storage procedures.
- Inform wholesalers on how much they need to import of what commodity and by when.
- Monitor the viability of the rivers and roads in the region.
- Ensure a proper system of road and bridge maintenance is undertaken by the local authorities.

Annex

Annex 1: Map of trade routes and volumes in Likouala and Sangha Departments



Source: WFP RoC

Annex 1 above is a map of the Likouala and Sangha Provinces in the north of The Congo illustrating the main trade flows to Bétou and Impfondo. From the map it is clear that the main arteries for trade are water based mainly using the Ubangi River on the right of the map running along the border between DRC and RoC. Trade coming from Cameroon is known to pass through Bangui (the capital of CAR) and is transported downstream by ship to Bétou. Heavy trade from Brazzaville to Impfondo and Bétou also uses the Ubangi River. These transportation arteries are open to heavy shipment trade (50-100MT) only 6 months of the year, from June/July to December/January due to low water levels during the other 6 months, known as the dry season in Likouala. During the dry

season food sold by wholesalers in Bétou and Impfondo is mostly from pre-positioned food stored in the wholesaler's warehouses or occasionally a wholesaler has food trucked in by land from Cameroon through Ouesso (317kms to Bétou) or up from Brazzaville through Ouesso (1,195kms) and further to Bétou and Impfondo.

The Ubangi River is used for retail trade year round and connects close-by bordering towns in DRC with Bétou and Impfondo year round. Traders use smaller lighter boats (pirogues – carrying max 100kg) and trade mainly in fresh and easily perishable goods such as vegetables, beans and ground nuts).

References

- African Economic Outlook, 2015 <http://www.africaneconomicoutlook.org/en/country-notes/central-africa/congo/>
- ECI (2013), 'Economic Complexity Index (ECI)', <http://atlas.cid.harvard.edu/rankings/country/2013/>, (accessed 12/12/2015);
- ECOM (2011), 'Congolese National Household Survey, Enquête Congolaise auprès des ménages', <http://catalog.ihsn.org/index.php/catalog/2254> (accessed 20/12/2015);
- FAO, 2015a, 'State of Food Insecurity in the World (SOFI)', United Nations Food and Agriculture Organization, <http://www.fao.org/hunger/en/>, (accessed 12/12/2015);
- FAO (2015b), 'Forestry Country Information', United Nations Food and Agriculture Organization <http://www.fao.org/forestry/country/en/cog/>, (accessed 12/12/2015);
- FAO, (2015c): 'Republic of Congo Country Profile', FAOSTAT, United Nations Food and Agriculture Organization http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=46, (accessed 12/12/2015);
- FAO, (2015d), 'FAO Country Briefs', United Nations Food and Agriculture Organization, <http://www.fao.org/giews/countrybrief/country.jsp?code=COG>, (accessed 12/12/2015);
- FAO (2015e), 'FAO Consumer Price Indices: May 2015', FAOSTAT, United Nations Food and Agriculture Organization, <http://knoema.com/FAOCPI2015Jan/fao-consumer-price-indices-may-2015?country=1000500-congo-brazzaville&action=export>, (accessed 12/12/2015);
- IMF (2013), 'Republic of Congo, Country Profile' International Monetary Fund, <http://www.imf.org/external/country/COG/index.htm> (accessed 12/12/2015);
- IMF (2015), 'Congo-Brazzaville: IMF Executive Board Concludes 2015 Article IV Consultation With the Republic of Congo', International Monetary Fund, <http://allafrica.com/stories/201507231194.html>, (accessed 14/12/2015);
- OEC, (2014), 'Republic of the Congo', The Observatory of Economic Complexity, http://atlas.media.mit.edu/en/profile/country/cog/#Trade_Balance, (accessed 13/12/2015);
- Quandl and Open Data for Africa, (2015), 'Republic of Congo Inflation % change, Average Consumer Prices', https://www.quandl.com/data/ODA/COG_PCPIPCH-Republic-of-Congo-Inflation-change-Average-Consumer-Prices?utm_medium=graph&utm_source=quandl, (accessed 14/12/2015);
- UNDP (2014), 'Human Development Report (HDR) 2014', United Nations Development Programme, <http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>, (accessed 12/12/2015);
- UNHCR/WFP 2014 Joint Assessment Mission (JAM), 'République du CONGO: Mission d'évaluation conjointe de la sécurité alimentaire et vulnérabilité des ménages de réfugiés provenant de la République Centrafricaine vivant dans le Département de la Likouala', United Nations High Commission for Refugees and United Nations World Food Programme,

<http://documents.wfp.org/stellent/groups/public/documents/ena/wfp266303.pdf>, (accessed 20/11/2015);

- WB (2015), 'Country Profile Republic of Congo', The World Bank, <http://data.worldbank.org/country/congo-republic>, (accessed 12/12/2015);
- WFP 2010, 'Comprehensive Food Security and Vulnerability Assessment' (CFSVA), United Nations World Food Programme, <https://www.wfp.org/content/republique-du-congo-analyse-approfondie-de-la-securite-alimentaire-et-de-la-vulnerabilite-2010>, (accessed 13/12/2015);
- WFP 2012, 'Analyse des Marchés dans les Territoires de L'Ouest de la Province de l'Equateur (marchés de Mbandaka, Dongo, Libenge, Gemenea)', United Nations World Food Programme;
- WFP, (2014a), 'ANALYSE GLOBALE DE LA SECURITE ALIMENTAIRE ET VULNERABILITE EN REPUBLIQUE DU CONGO (AGSAV)', United Nations World Food Programme;
- WFP (December 2014b) 'Post-Distribution Monitoring: Résultats du suivi et évaluation de l'Emergency Opération <<EMOP>> programme d'assistance des refugies RCA' – PDM, United Nations World Food Programme;
- WFP (2015a), 'CARI Console', Consolidated Approach for Reporting Indicators of Food Security, United Nations World Food Programme, <https://resources.vam.wfp.org/CARI> (accessed 20/11/2015);
- WFP (September 2015b); 'Post-Distribution Monitoring: Résultats du suivi et évaluation de l'Emergency Opération <<EMOP>> programme d'assistance des refugies RCA' – PDM, United Nations World Food Programme;
- WFP (2015c), 'Innovative Food Assistance Instruments – Omega Value Efficiency and Effectiveness analysis for selection of one or a combination of transfer modalities: food, cash or voucher', United Nations World Food Programme <http://documents.wfp.org/stellent/groups/public/documents/resources/wfp271102.pdf>, (accessed 20/11/2015);