



Yemen Food Security Information System (FSIS) Development Programme

The FSIS Programme is Funded by the European Union and Implemented by FAO and the Food Security Technical Secretariat/MoPIC

YEMEN FOOD SECURITY UPDATE

January 2016

The humanitarian crisis is worsening due to escalation of conflict and civil insecurity, poor crop harvest and disruptions of markets and trade activities.

<p>The Yemen Food Security Information Systems (FSIS) Development Programme is funded by the European Union and implemented by the Food and Agriculture Organization of the United Nations (FAO) and the Food Security Technical Secretariat (FSTS) of the Ministry of Planning and International Cooperation (MoPIC).</p> <p>The Objective of the FSIS Development Programme is to assist and support the efforts of the Government in establishing a conducive institutional set up for food security decision-making, supported by a relevant, effective, and sustainable National Food Security Information System. The programme is being implemented at national and governorate levels.</p> <p>This document presents an overview of the food security situation in Yemen as of January 2016, proposing actions to develop a sustainable Food Security Information System in the country.</p> <p>Contact: FAO /FSIS Programme: FSIS-FAOYE@fao.org, +967-1-432 681 /2 MoPIC/FSTS: drmukred@yemen.net.ye Tel: +967 733 725348</p>	<p style="text-align: center;">Highlights</p> <ul style="list-style-type: none"> ▪ The humanitarian crisis is deepening and approximately 55.6 percent of the populations (14.4 million Yemenis) are food insecure including 7.6 million who are severely food insecure. ▪ Ten Governorates are in Emergency phase of acute food insecurity (IPC¹ Phase 4) –June 2015 IPC analysis results. ▪ The 2015 rainfed and irrigated agriculture production have been affected by inadequate seasonal rains, poor access to farmlands, and high prices of agriculture inputs. The estimated aggregate cereal production in 2015 is 275,773 MT, which is 30 percent less than 2014 production. ▪ Ministry of Trade and Industry (MoTI) estimates that around 3,024,827 MT of wheat grain is needed in 2016. ▪ More than 2.5 million people affected due to the closure of safety net programmes and the freezing or suspensions of different donor-supported development programmes. ▪ Local conflict and displacement have distressed livelihoods. The destruction of public and private infrastructure is causing the extensive loss of private business. ▪ The supply of fuel and cooking gas show slight improvement in most target governorates. However, compared to the pre-crisis, the average monthly price of diesel and petrol has increased by 159 percent and 197 percent respectively. ▪ Agriculture public services, including veterinary disease surveillance, vaccination, and plant protection have been eroded by the conflict, exposing livestock and agriculture productions to great risks.
--	--

1. Background/Context

Yemen is once again stepping in to rampant and dire food insecurity situation after one-year of the escalated conflict. The conflict in Yemen has damaged the public and private infrastructure; destabilized the market system and prices, negatively impacted employment opportunity and income and devastated livelihoods, exposing millions of the rural and urban population to destitution and food insecurity. More than 50 percent of the population is suffering from food insecurity and malnutrition. As the conflict continues, the number of food insecure people is expected to increase among the urban and rural population. Continuing conflict, deteriorating economic system, continued imports restrictions, economic pressure on the population due to shortage and high price of fuel and essential commodities. Although imports of essential food commodities and trade have relatively improved, the conflict continues to prevent traders from transporting goods to many areas of the country.

The socio economic and livelihood setup of Yemen is predominantly rural and food insecurity and poverty were already severe prior to the conflict where 73% of the population, and 84% of the poor, live in rural areas². Poverty and food insecurity are further deepening because of the escalated conflict which destroyed public and private infrastructure and devastated livelihoods as a result of loss of private businesses and closure of safety net and livelihoods programmes, in addition to freezing of the public investment plans and the donor supported development programmes. It is estimated that 55,6 percent of the population (14.4

¹ The Integrated Food Security Phase Classification (IPC) is a set of standardized tools that aims at providing a "common currency" for classifying the severity and magnitude of food insecurity. This evidence-based approach uses international standards, which allow comparability of situations across countries and over time.

² World Bank (2007) poverty assessment report.



Yemen Food Security Information System (FSIS) Development Programme

The FSIS Programme is Funded by the European Union and Implemented by FAO and the Food Security Technical Secretariat/MoPIC

million Yemenis) are now food insecure, of which 7.6 million are severely food insecure, that is 23 percent more compared to the June 2015 IPC figure.

Internal displacement and migration outside of the country is still ongoing. More than 2.5 million persons are reported internally displaced according to the Task Force for Displacement and Migration (TFDM) report of December 2015, an increase of 204,014 compared to the 2.3 million IDPs reported in October 2015. The escalated conflict among warring factions in different parts of the country has seriously disrupted the government public services, small and big businesses and manufacturing industries, and has caused the closure of small scale and commercial agriculture activities and safety net programmes. Because of the combined problems and challenges stated above, the food security situation is further deteriorating.

2.0 Food Security Situation Overview

2.1 Crop Production

In Yemen, the central highlands, the southern uplands and the western coastal areas of the Tihama basin are the core areas for the production of sorghum, millet, vegetables, fruits, and other cash crops. About 50 percent of the cultivated land is rain fed and the rest is irrigated, 31 percent from groundwater, 10 percent from floods (spate), and the rest from dams, streams, and water tankers. The 2015 agricultural season was characterized by erratic rainfall (it started late with some dry spells) although the total seasonal rainfall was around average to slightly above average in most of the agricultural areas. Some crop failures and second planting were observed in many areas, and yields were poor compared to the normal year expected results.

As indicated in the August 2015 update, delayed rainfall during mid-March and early April affected crop germination and growth in most Sorghum growing areas. As a result, there were considerable planting and germination delays, which slowed down crop development. During the 2015 agriculture season, many of the conflict affected areas of Taiz, Saada, Hajjah, Ibb, Al Daleh, Lahaj, Albaida and Shabwa, were unable to cultivate and conduct the normal agricultural practices which negatively influenced the production, availability and price of the different local agricultural products in the markets. The 2015 main season sorghum, millet and maize crops, which account for the major local cereal production is completed and planting for the 2015/16 legumes is underway. The total cultivated land for cereals (sorghum, wheat, maize, millet, and barley) in 2014 was 352069 hectare while it estimated to reduce by 30-35% during 2015. This is due to the challenges of accessing farmland and shortage of rain and other impediments. As a result, the Ministry of agriculture and Irrigation (MoAI) estimated the overall cereal harvest in 2015 to be 30 percent lower than the previous year average. According to the MoAI statistics department, the 2014 cereal harvest was 393,962 tons while the 2015 harvest is estimated 275,773 tons. The upcoming inter agency Emergency Food and Nutrition Security Assessment (EFSNA³) results will provide the actual cultivated area and amount harvested.

Production during the reporting period was influenced by the shortage and high fuel prices, diesel in particular which is an essential input to agriculture production. The scarcity and high prices of diesel during the production season caused the cost of tractors to increase by 40 percent and the cost of pumping for irrigation to increase by 50 percent. It also affected the transportation cost between and within governorates. The cost of transportation between governorates increased by more than two folds and it has increased by 100 percent within the governorates. The continued scarcity and high price of fuel has doubled the production cost due to increased cost of pumping water to the agricultural areas, the high cost of land preparation, cultivation and transportation of produces to the markets. During the past ten months, the average fuel price has fluctuated between 159 percent and 197 percent compared to the pre-crisis (Source: FSIS-GFU and WFP market price monitoring). This price increase and fluctuation has affected the production cost of the sector and pushed many commercial farmers to reduce their scale of investment and production and others went out of business.

Beside the increase in the fuel prices, there is also shortage and increased price of agriculture inputs in most of the governorates. For example, the price of fertilizer in Hadramout is 53 percent higher than the prices prior to the crisis and the

³ EFSNA is an inter-agency assessment that will be conducted under the coordination of the Food Security and Agriculture Cluster (FSAC), WFP, UNICEF and FAO, and pertinent government ministries in order to understand overall impact of the ongoing conflict on the food security and nutrition situation.



Yemen Food Security Information System (FSIS) Development Programme

The FSIS Programme is Funded by the European Union and Implemented by FAO and the Food Security Technical Secretariat/MoPIC

price of 50 Kg of Urea increased from 6,500 YR in February 2015 to 10,000 YR by the end of December 2015 (Source: FSIS GFU weekly market update).

2.2 Livestock production

In Yemen, small ruminants (sheep and goats) are among the main source of income for small farmers, rural households, and any influence to these productive assets severely affect the household's food security and livelihoods. Currently, high prices of animal feed, forage, and veterinary drugs and the continued encroachment of crops and qat fields in the traditional pasture and rangelands have contributed to the reduction of livestock production in the highlands of Yemen. Smallholder and commercial livestock production is highly affected by the combined effect of the conflict, causing scarcity of feed, forage and other inputs. Currently, the highlands are in dry season with very limited rainfall, which has forced livestock owners to reduce their flock by selling some animals to cope with the scarcity of forage and limited grazing areas. While that is the case with highlanders, livestock owners in the low lands⁴, which entertained a good share of rain and relatively better forage and pasture, are opting to keep their animals until they get better price.

Due to the shortage of government budget and to the running costs of public services, the regulatory system is deteriorating, which has compromised the veterinary disease surveillance, and vaccination campaigns that protect livestock assets from endemic diseases. Only limited vaccination campaigns against PPR and Sheep and Goat Pox were carried out with the support of some international organizations in Hajjah, Taiz and Hodaidah. With the absence of regular surveillance and monitoring of animal health, the incidence/prevalence of endemic diseases such as Old World Screwworm (OWS), which used to be in their low profile status, are becoming serious threats to the livestock production. According to the Animal Health Department of Hodeidah, livestock in the Tihamah area are exposed to OWS and more than 7000 cases were recently treated.

In Tihamah the heavy rain fall had induced a favorable environment for mosquito borne epidemics. The Rift Valley fever was introduced to Yemen (Tihamah region) 15 years ago. The threat of reintroduction of this disease and others still prevails especially with the overall interruption of the veterinary services (surveillance activities) in general and the quarantine measures at the entry points in particular. Before 2011, the Directorate of Animal Health and Veterinary Quarantine used to have strong and functional animal health information network producing passive and active animal disease surveillance reports. The passive and active surveillance report network was established at national, governorate and district level that covers 213 out of the 334 districts in Yemen. Currently, the majority of these activities are not functioning. Overall, the livestock sector and the producer's livelihoods and food security will be at risk unless consistent interventions in the animal health and husbandry activities are undertaken.

2.3 Poultry production

According to the Ministry of Agriculture more than 90 percent of the commercial poultry farms that supply products to the market are in the highlands of the Southern uplands of Taiz, Adhalie', Ibb, Al Byeda and in the central highlands of Dhamar, Sana'a, Amran and Saadah governorates. The poultry production sector has suffered serious setback and loss of flocks since the escalation of the conflict in March 2015. In addition, the air strikes had destroyed some of the poultry farms in Taiz and Dhamar and chicken hatchery in Albarh area of Taiz governorate with 2.5 million hatching eggs.

Even more serious, the overall poultry production in Yemen is at stake, unless regular preventive and curative measures are in place. For example, shortage of vaccines against Marek's disease contributed to the failure of laying chickens and eggs production in Yemen. While the poultry production has been revived in some areas, thanks to the relatively improved supply of vaccines, medicines, poultry feed and fuel including diesel and gas, poultry farms in some areas of Taiz are still suffering from shortage of these inputs and supplies. Poultry vaccines, medicines and hatching eggs are imported through a second country of origin, adding additional expenses to the price of these inputs. Compared to pre-crisis prices, the price of vaccines, medicines, and hatching eggs increased by 150 percent, 50 percent and 50 percent respectively. Currently, the price of broiler feed is 120,000 -130,000 YR/Mt while it was 140,000 YR in August 2015 and 115,000 YR/MT prior to crisis. The price of layers feed is currently 110,000 YR/MT while it was 106,000 YR in August 2015 and 85,000 – 90,000 YR per MT in the pre-crisis.

⁴ During November/December 2015, good rainfall was witnessed in the Tihamah followed by a cyclone Chapala and Megh in the eastern low lands of Shabwa, Hadarmout, Abyan and Almahra and Sequotra.

The closure and/or reduction of the commercial poultry farms due to high production costs and to the disrupted market system in the Taiz and in other ongoing conflict areas, have affected the employment opportunity of the labor force and the people engaged along the value chain. Experts have estimated that there is a 60 percent production reduction in conflicts areas and around 25 percent decrease in employment opportunity in other areas due to the increased prices of inputs, absence of electric power and scarcity of fuel and other economic pressures on poultry production. This said however, there has been some improvement in the farm gate prices of poultry products, which has encouraged farmers to resume and continue production. Currently, the price farm gate of one carton (12 packs of 30 eggs) of table eggs is 9500 YR compared to 6500 YR in Oct/ Nov 2015. The farm gate price of broilers has also increased from around 500 YR for one live chicken to around 700 YR.

2.4 Fish production

Yemen has 2,520 km of coastline endowed with diverse habitats and harbors with a rich marine resource wealth. Fisheries is one of the promising sectors in Yemen with significant potential for employment opportunity, income generation, and food security for the population along the coastal areas. However, the sector development used to face serious challenges; most of them are further exacerbated by the current conflict and its consequences mainly the import and sea access restrictions, scarcity and high price of fuel, transportation, and storage (cool house) facilities. Besides, the conflict and the military surveillance along the coastline have seriously constrained movement for fishing. Fishing boats are targeted especially in the governorates of Al-Hodeida, Taz and Hajjah; as a result majority of the fish services are interrupted or on halt. According to FAO, 65% of the fisher men lost their livelihoods along with 650,000 casual workers engaged in packing, storage and transportation due to the conflict. Reportedly, unauthorized and illegal fishing activities are exploiting the conflict situation and the vacuum of government control and regulatory system in the area. The Ministry of Fish Wealth warned legal action against illegally fishing and trading individuals and companies.

Scarcity and high cost of fuel and insecurity in the coastal governorates have drastically affected the fishing practices and have dramatically reduced the amount of fish catch and supply to all central and coastal governorate markets. There has been a significant decrease in traditional fishing by about 75 percent in Taiz and Al Hodaidah. The decrease in the other governorates has reached nearly 50 percent compared to 2014. The decline in production directly affected 50 percent of the fishermen who have lost their livelihoods, income and household food security and cannot maintain the wellbeing of their families. Fish trade has stagnated both in the capital and governorate markets due to the shortage of fish supplies, high prices, and poor purchasing power of the population. The commercial fishing before the escalation of the crisis, which use to produce more than 600 tons per day is also severely affected. Similarly, fish exports have significantly dropped due to the closure of the off shore and marine exit points and airport export outlets, except for a small negligible amount transported by trucks and containers from Mahra to Oman. It was noted that the amount of fish available and supplied in Sanaa and other governorates has drastically reduced. This is due to the limited amount of fish catch and problems related to the safety and security of traders transporting it to the capital city, in addition to challenges related to the storage and refrigeration due to the shortage of electricity and fuel.

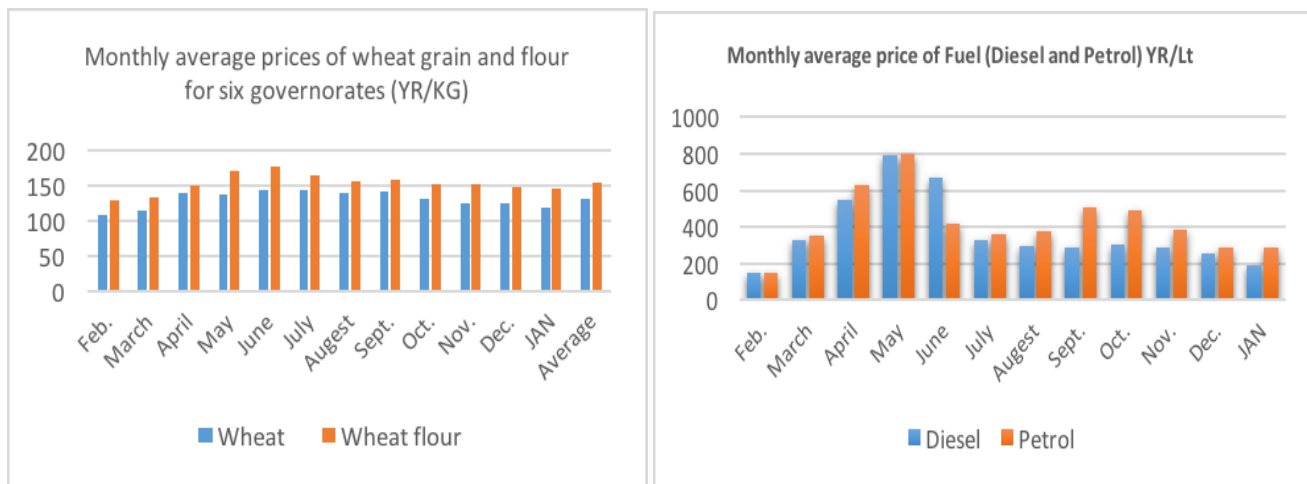
Besides, cyclone Chapala and Megh in early November 2015 had a serious impact on the fishery sector as it caused the displacement of about 5,974 families in six coastal governorates, the destruction of productive assets, infrastructure, fishing tools (1628 fishing boats, 956 motors and 19 fisheries landing sites were damaged) and disrupted the fishery ecosystem. Moreover, during December and January, the seasonal weather of high-speed winds and turbulence in the Red sea area has affected the quantity of hyphen fish catch and supplies to the market.

3.0 Markets and Prices

The different market information sources show that a relative improvement in availability and prices of staple food commodities and animal products compared to the supply and prices recorded during the past six months. However, prices continue to be significantly higher than before the crisis. The escalated conflict disrupted the normal import and trade of essential food and non-food commodities, however, the recent relative ease of the import restriction contributed to the improvement of the supply and availability of basic food commodities in the different markets. Still, availability of food and essential commodities are very scarce in conflict-affected areas like Taiz, Sa'ada, Al Bayda, Al-Jawf, and Marib due to different forms of blockages.

Yemen Food Security Information System (FSIS) Development Programme

The FSIS Programme is Funded by the European Union and Implemented by FAO and the Food Security Technical Secretariat/MoPIC



The average price of wheat and wheat flour increased by 20-23 percent compared to the pre-crisis. The maximum price increase was registered in June 2015, which was 34 and 38 percent for wheat and wheat flour respectively. While the price of wheat and wheat flour shows a continued price drop, however, it is still 11 and 14 percent above the pre-crisis price respectively. Although imports of essential food commodities and trade have relatively improved, conflict continues to prevent traders from transporting goods to many areas of the country. The average prices of locally produced cereals and pulses reflect a relative stability in January 2016 compared to December 2015. However, these prices are still significantly higher when compared to the pre-crisis era in February 2015. The average prices of the imported commodities (wheat & wheat flour) remain stable in Sanaa and Dhamar governorates, while they declined slightly in Hajjah, Hadramout and Lahej. The supply of fuel and cooking gas shows a slight improvement in most governorates. FAO/GIEWS July report indicates that export prices of wheat have remained around 18.3 – 29.3 percent lower than in February 2015, ranging between 175 - 214 USD per MT.

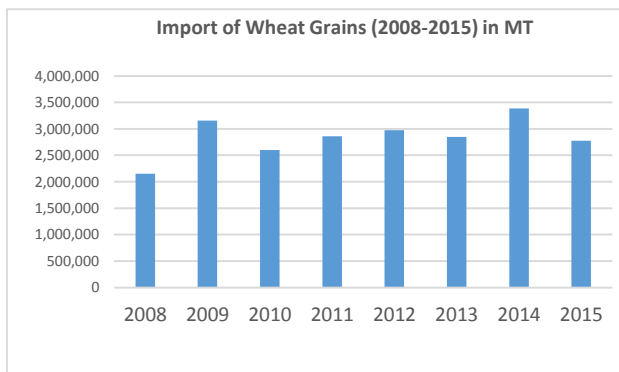
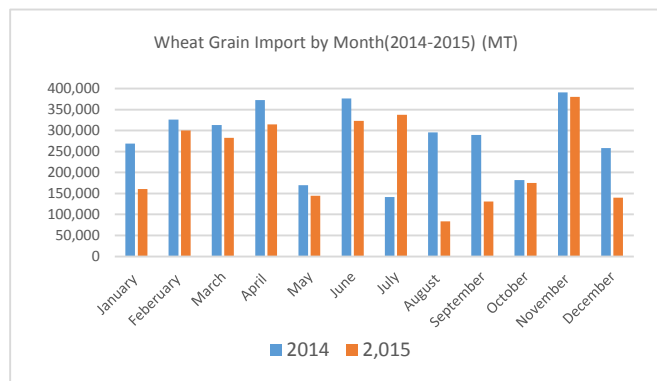
Prices in parallel markets are still very high and official channels for selling fuel and cooking gas are very limited and under the full dominance of parallel market prices. The recent fighting along the Marib Sanaa road has also been affecting the main supply line of cooking gas to the capital city. This will further escalate the price of cooking gas due to the long distance of transportation. The average monthly price of petrol and diesel have increased by 197 percent and 159 percent respectively compared to the pre-crisis. Because of the import restriction and blockage, there is a high shortage of agriculture input, mainly improved vegetable seeds, as reported in the monitored markets of Lahej, Hajjah and Dhamar. The January prices of the different types of live animals was more or less similar to those of December 2015 but it has remarkably increased (35-40 percent) compared to prices in April/May 2015. This is due to good rain and pasture in the Tihamma area during the previous months where farmers prefer keeping their animals until they get better prices while those in dry areas with scarce forage and pasture have a tendency to sell in order to reduce their flock size in addition to the other market factors which influenced the prices.

4.0 Food imports

In terms of imports, Yemen is one of the countries that are most dependent on food imports in the world. In Yemen, 55 percent of food products consumed are imported⁵, and 90 percent of wheat (the main staple) is imported. The total amount of wheat grain that was available during 2015 was 3,645,046 MT of which 870,000 MT was stock carried over from 2014 while 2,775,046 MT was imported. According to the December 2015 report of Ministry of Trade and Industry (MoTI), 370,000 MT of wheat grains are in the traders silos while the remaining 630,000 MT are in the warehouses of big traders. However, estimating the distribution and stocks information of these commodities at the governorates level remains a big challenge. The total imports of wheat grains in 2015 (2,775,046 MT) was 18 percent lower than the 2014 (3,387,048 MT) (MoTI, December 2015). According

⁵ IFPRI Discussion Paper 00955 (February 2010): Impacts of the Triple Global Crisis on Growth and Poverty in Yemen (Clemens Breisinger et al)

to the UN OCHA snapshot, the total food commodities imported by the commercial sector from April 2015 up to January 2016 was 3.8 million and 0.56 million by the humanitarian actors. Please note that this figure includes all sort of food commodities not limited to wheat.



In general, the availability of wheat grains and wheat flour has improved in many areas except in the conflict affected Governorates. Due to the damage of the Silos in Aden, traders have imported wheat flours from outside which contributed to increasing prices compared to the pre-crisis. Around 129,504 MT of wheat flour was imported during 2015, which is 84 percent higher than in 2014 (21,002 MT).

Five Yemeni ports, namely Salef, Hodeidah, Mokha, Aden, and Mukalla, are now open, while three ports (Ras Isa, Balhaf and Ash Shihr) remain closed due to the continued armed conflict in the area. The total annual cereal requirement for the 26.7 million population at a rate of 12.5 Kg/head/month is estimated to be 4 million tons. Based on the previous year's average of 2008 -2014, the MoTI has estimated that around 3,024,827 MT of wheat grain is required for 2016, which is 76% of the annual requirement. The remaining 24% of the requirement is expected to be covered from the local cereal production, the humanitarian support and carry over food stock from 2015 imports. It is worth noting that facilitating the commercial import of the estimated 3 million MT through private traders under the current socio economic and political situation of Yemen will be very challenging. Besides, Yemen does not have a strategic food reserve to face difficult times of shortage.

5.0 Nutrition Situation

The food security and nutrition situation is under continuous deterioration. According to UNICEF, some 3 million children under 5 years and pregnant or lactating women require services to treat or prevent acute malnutrition. The shortage of basic goods such as water, electricity, medicine, and fuel is causing more and more disruption to people's lives and livelihoods. In addition, the sharp increase in prices of food associated with loss of jobs and lack of work opportunities continue to increase poverty and malnutrition among the most vulnerable groups. The recent Standardized Monitoring and Assessment of Relief and Transitions (SMART) nutrition survey of UNICEF and the MOHPH conducted in Aden, Lahej, Hajjah, Al-Hodeidah and Al-Beidah during August- October 2015 shows alarming level of malnutrition especially in Al-Hodeidah where the Global Acute Malnutrition (GAM) is 31 percent compared to 18,3 percent in 2014. A serious deterioration was also noticed in Aden where the GAM doubled to 19.2 percent in 2015 compared to 10.3 percent in 2014 (CFSS2014). The GAM prevalence was 20.9 percent in the lowlands and 9.9 percent in the mountains areas of Hajjah governorates. The GAM was 20.5 percent in the lowlands and 9.9 percent in the mountains areas of Lahej governorates. However, the GAM rate in Al-Beidah has not showed any large deterioration, as according to the recent SMART survey in October it was at 6.6 percent compared to 4,4 percent in 2014 (CFSS 2014). In general, the overall nutrition situation is above the emergency threshold, which calls for emergency support and assistance to the most affected areas.

6.0 Civil Insecurity, Internal Displacement and Migration

More than 2.5 million persons are internally displaced according to the Task Force for Displacement and Migration (TFDM) report of December 2015, an increase of 204,014 people compared to the 2.3 million IDPs reported in October 2015. The Taiz



Yemen Food Security Information System (FSIS) Development Programme

The FSIS Programme is Funded by the European Union and Implemented by FAO and the Food Security Technical Secretariat/MoPIC

governorate hosts the highest number of IDPs (392,429 individuals), followed by Amran (288,437 individuals) and Hajjah (228,453 individuals). The continuation of the conflict and the intense fighting in Taiz, Saada, Hajja, Marib, Aljawf, Al Baida, Al Daleh and Shabwa force more families to leave their homes and seek safety and security somewhere else. According to the TFPM February 2016 report, there is slight decrease in overall IDP figure by 78,884 individuals; however, there is an increase in northern areas, particularly in Sana'a, Marib, Taizz and Hajja, which is linked to escalation of conflict in those governorates. Decrease in southern areas but slight increase in Aden and significant decrease in Abyan, Al Bayda and Al Dhalee. Conversely, around 421146 returnee populations were seen primarily in Aden, Lahj and Shabwah governorates.

According to the WFP December 2015 report, the food security of IDP households continues to deteriorate and a significant drop in the mean Food Consumption Score (FCS) and a rise in negative coping levels since the previous month have been reported. The massive displacement, along with diminished access to food, income, and basic services has led to a humanitarian crisis. Despite the relative reduction in food prices in the past three months, the IDP household purchasing power remains limited due to the below-average household incomes. The IDP problem in Yemen is complex and interwoven, and requires an integrated approach and coordinated action from all stakeholders.

7.0 Summary and action points

- The overall humanitarian situation and the food insecurity in the country is deepening and very alarming. The food security outcomes in areas under emergency (IPC Phase 4) and crisis (IPC Phase 3) will further deteriorate unless the humanitarian response urgently reaches the affected populations. The continued escalation of the conflict will seriously deteriorate the food security outcomes for populations under crisis (IPC Phase 3) and emergency (IPC phase 4) in the active conflict areas of Taiz, Saada, Hajjah, Aljawf, Marib and Shabwa.
- The price of fuel and cooking gas in the parallel markets are still very high and official channels of selling fuel and cooking gas are very limited. The ongoing fighting along the Sanaa-Marib road will further aggravate the scarcity and price of fuel and cooking gas, which will have a knock on effect on the overall economy and services in the country.
- The protracted conflict has continued damaging the lives and livelihoods of the population. The humanitarian community should continue advocating for the twin-track approach of providing humanitarian assistance, side by side implementing activities that enhance resilience of livelihoods.
- The insecurity and continued challenges of conducting assessments and humanitarian services will further compromise the quality of the interventions across the country. This includes assessing the food and nutrition security situation, agriculture, livestock, fisheries, markets and the overall macro and micro economic indicators.
- The food and nutrition security outlook for 2016 remains worrisome. Continued efforts are required to meet the basic needs of the affected population and most vulnerable and build communities resilience to shock through early recovery, rehabilitation programmes.