

Food Security, Consumption, Complications, and Coping Mechanisms

Tihama (Wadi Zabid and Wadi Siham)



Introduction

Agriculture in the Tihama region, being the main sustenance of the population, has been majorly influenced by the serious disruptions the agricultural sector is experiencing. The current war has negatively affected the productivity and investment capacity of the country. The supply and distribution of agricultural inputs and farm products to the markets have also been adversely affected. Affected people's coping mechanisms and safety nets of food security are stretched to the limit as families adopt insufficient and negative coping strategies in order to survive.

WEC in collaboration with the Flood-Based Livelihoods Network (FBLN), NICHE-Yem027 and MetaMeta Research conducted an operational research to assess the impact of the current war on food security, as well as understand the manifestation and causes of the famine and food insecurity in the Tihama plain, historically known as the food granary of the country. The selection of the study areas in the southern and central parts of the region of the Tihama Plain came to determine the impacts of war on household's food security and agricultural production in these regions. This study focused on Wadi Zabid (as southern wadi of the plain) and Wadi Siham (central wadi of the plain), where farming mainly depends on spate irrigation in which use is made of short duration floods in the dry streams.

The main objective of this assessment study was to quantify the impact of the ongoing war on food security to support the efforts of the international community to pursue their assistance for the affected poor and vulnerable population in Tihama, as well as best understand how to respond. It evaluates the food insecurity situation from two perspectives, the farmer's and the consumers', by understanding the challenges posed to establishing food security. The study also explored the direct and indirect impacts of war on food security and agricultural activities, while evaluating how those activities are in relation with food security and production. It eventually looked into coping strategies adapted by farmers and other water users, and any possible innovated simple solutions that they may be adopted to relief negative consequences on food security and thus ultimately on the livelihoods of the people. This note presents the findings concerning food security from the **consumer perspective**.

The Tihama



Al-Hodeidah is the second largest governorate in Yemen in terms of population size. It has a population of about 3.19 million inhabitants, accounting for a percentage of 11.5% of the total Yemeni population. Al-Hodeidah is the main

governorate in the Tihama region, representing more than 80% of Tihama's region area.

Wadi Zabid is one of Tihama's main wadis located in its southern part (Figure 1). It is the second largest wadi in the spate spate-flowed Tihama, with an area of 4639 km², while the catchment of Wadi Siham is located in the central part of Tihama (Figure 1), with an area of 5586 km².

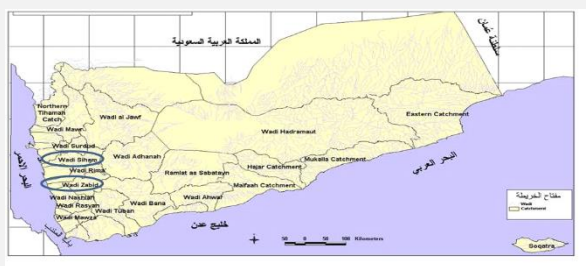
There are two agricultural seasons in both Wadi Zabid and Wadi Siham: the autumn season (July–October), and the summer season (March – June). The main crops grown in Wadi Siham during autumn are sesame and sorghum. Sorghum is grown for the purpose of producing grain and fodder. In the summer season, sorghum and millet are grown and irrigated using rainwater (spate irrigation), whereas, tobacco and vegetable crops are grown and irrigated using groundwater.

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General Outlook

The household level of food insecurity is about 32.1% of the population in Yemen, 37.3% rural and 17.7% urban households indicating high inequality. Almost one-third of Yemenis (7.5 million) do not have enough food to satisfy their needs. Children being underweight and stunting is also much more pronounced in rural areas (62.1%) than in urban areas (45.4%). The average rural nutrition is poorly balanced, and the risk of micronutrient deficiencies is especially high. Food insecurity is highest among rural, nonfarm households, and livestock farmers. A severe deterioration in food security is observed in Tihama, and is alarming

to further aggravate. The people who are particularly food insecure come mainly from poor societies, and percentages of hunger rates go over 50% amongst households in Wadi Zabid and Siham. The civil insecurity and the war in the country have been a key driver to the alarming food insecurity increasing rates. Whereas, the population is trying to cope with the challenges and survive with the very little of food resources they either have or can obtain. In many parts, given upstream, midstream and downstream were studied, the households in the different places applied a number of adaptation strategies, which ranged from three to nine.



Baseline - Tihama

Main governorate: Al-Hodeidah

Governorate population: 3.19 million

Governorate area ratio in the Tihama: 80%

Location: Wadi Zabid is in the southern part of Tihama, while Wadi Siham is in the central part.

Area: Wadi Zabid (4639 km²), Wadi Siham (5586 km²).

Key Findings

Socio-economic factors	Income fluctuation or loss; lack of cooking fuel; unavailability of domestic water resources
Food security	Deprivation and hunger; food unavailability; and lack of access
Food consumption	Less consumed food; less favorable food; anxiety; sleeping hungry
Coping strategies	A minimum of three to five strategies per household
Health complications	Infectious diseases; non-commutable diseases; malnutrition; newborn and motherhood health problems; and child health problems

The Crisis Impact*

Key figures (socio-economic factors)

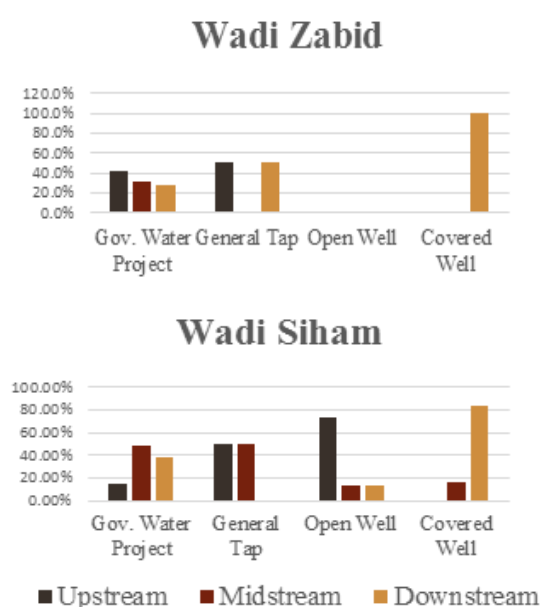
Sources of income for household in Wadi Zabid and Wadi Siham during the war

Type of income source	Name wadi		Wadi Zabid	Wade Siham	
	Source of income/ rank		Average		
Main income source	Crop product	1 st Source	28.7%	28.5%	
		2 nd Source	5.2%	4.9%	
		3 rd Source	1.1%	0.0%	
	Livestock Products	1 st Source	0.0%	7.3%	
		2 nd Source	26.7%	28.5%	
		3 rd Source	6.7%	0.0%	
Secondary income source	Seasonal labor	1 st Source	4.4%	0.0%	
		2 nd Source	22.2%	0.0%	
		3 rd Source	6.7%	33.3%	
	Remittances	1 st Source	0.0%	0.0%	
		2 nd Source	4.8%	0.0%	
		3 rd Source	28.6%	33.3%	
	Social assistance	3 rd Source	0.0%	33.3%	
		Simple trading	3 rd Source	0.0%	33.3%

Source of the fuel used in cooking before and during the war

Mean	Wadi Zabid			Wadi Siham		
	Wood	Gas and wood	Gas	wood	Gas and wood	Gas
Before the war	51%	16%	33%	50%	18%	32%
During the war	68%	20%	12%	82%	8%	10%

Current sources of domestic water in Wadi Zabid and Wadi Siham



Non agricultural damages

	Wadi Zabid	Wadi Siham
Stopping the payment of salaries of government employees	12.8 percent	34.9 percent
Increased unemployment and limited job opportunities	85.1 percent	49.4 percent
Spread diseases and deteriorating health care	62.8 percent	77.1 percent
Destruction or direct damage caused by air strikes (properties..., etc.)	0 percent	8.4 percent
Others: (Food shortage, electricity shutdown, inequality in distribution of food aids, and deterioration of the situation in general)	96.8 percent	86.7 percent

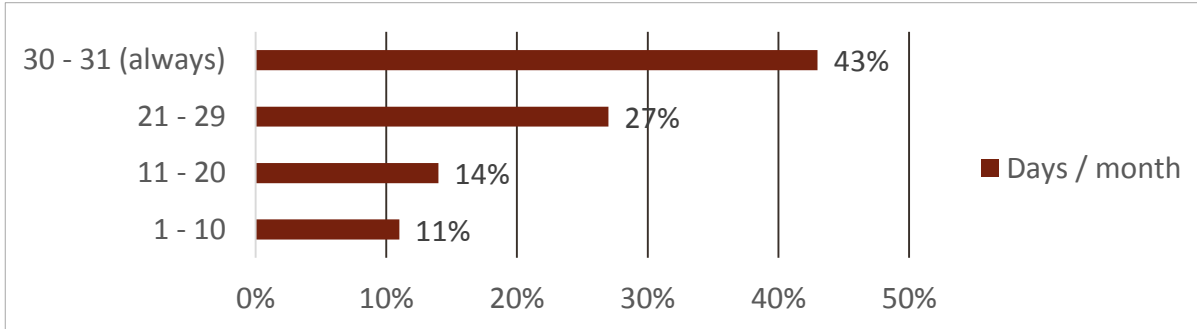
* Study analysis covers the periods: March 2015 - June 2017, and the 'pre-war' period



Food Security

Wadi Zabid

Households sleeping hungry (days/ month)



Families with no enough food stocks to meet their minimum household needs for a week



51.6%
Upstream
households

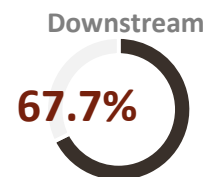
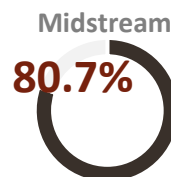
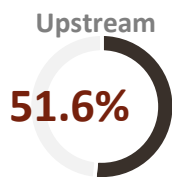


80.6%
Midstream
households



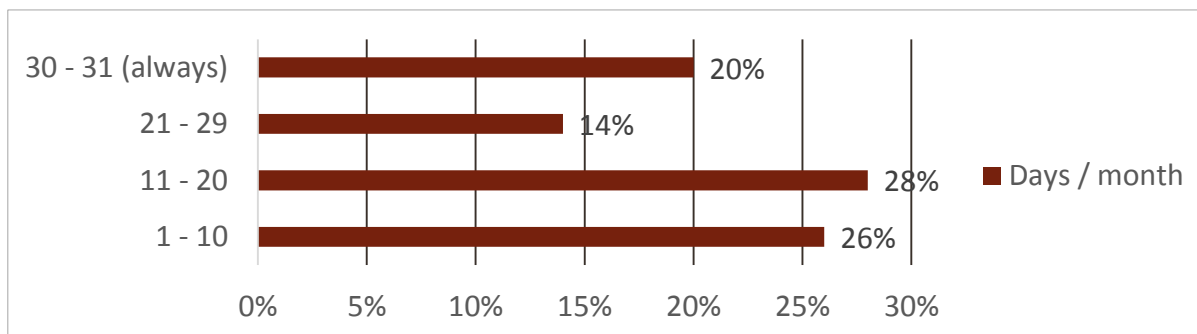
67.7%
Downstream
households

Families with no proper access to the food market



Wadi Siham

Households sleeping hungry (days/ month)



Families with no enough food stocks to meet their minimum household needs for a week



75%
Upstream
households



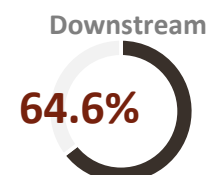
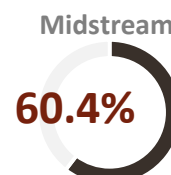
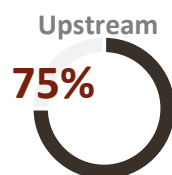
60.4%
Midstream
households



64.6%
Downstream
households



Families with no proper access to the food market

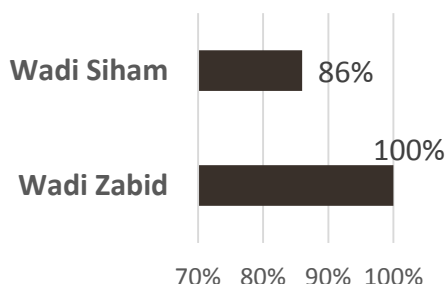




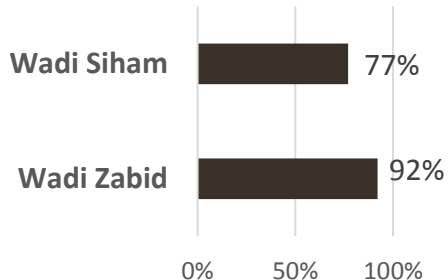
Food Consumption



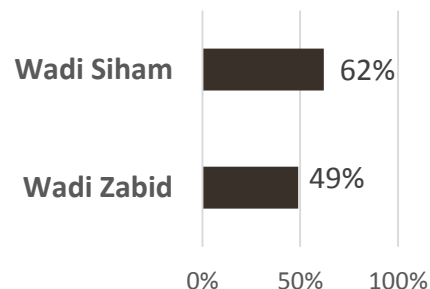
Households with anxiety of not having enough food



Limited food stored in the house, and households eating low-cost food



Households sleeping hungry to minimize their food consumption



Percentages of households (HHs %) and their food availability situation



HHs eating selected food due to the lack of money

Wadi Zabid

94.7%

Wadi Siham

74.7%



HHs eating food they don't like

91.5%

78.3%



HHs eating limited food due to money shortage

91.5%

71.1%



HHs going to bed hungry most of the time due to the unavailability of food

47.9%

53%



No food at home because no money

66%

44.6%



Health Complications



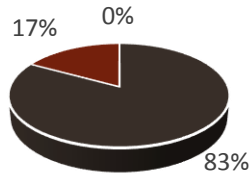
Health problems in the wadis' villages

Upstream
 Midstream
 Downstream

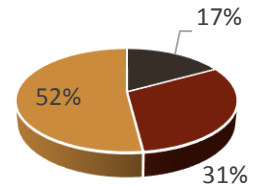


Infectious diseases

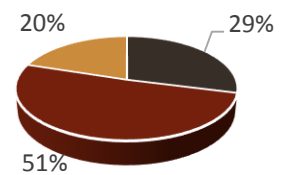
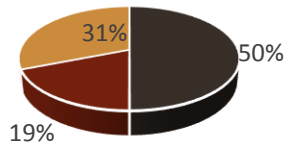
Wadi Zabid



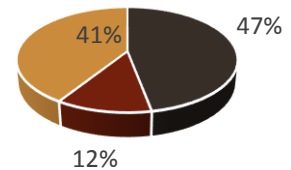
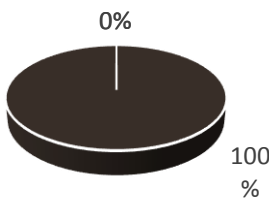
Wadi Siham



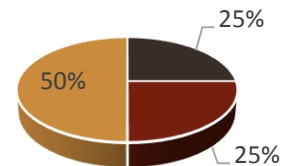
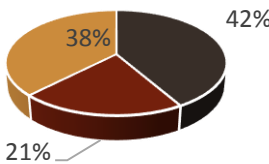
Non - communicable diseases



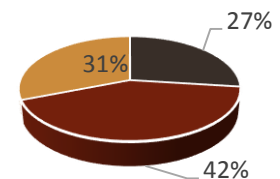
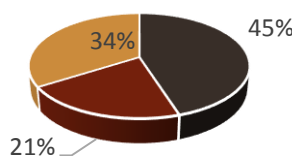
Problems of motherhood and newborn



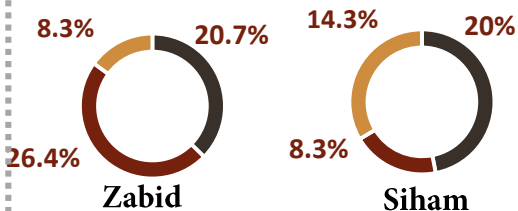
Children health problems



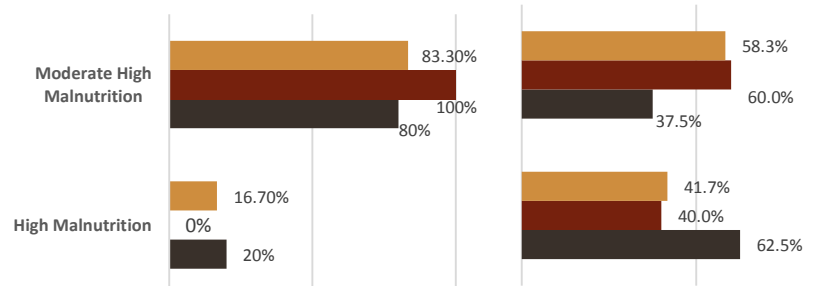
Malnutrition



Children subjected to malnutrition



Children with Moderate High Malnutrition and High Malnutrition





Coping Mechanisms & Relief Measures



Coping Strategies

Strategy	Wadi Zabid	Wadi Siham
Reducing the nutrition budget	94.7%	81.9%
Consumption of low quality food	87.2%	56.6%
Reducing the budget for the purchase of clothes and household appliances	79.8%	81.9%
Consumption of savings to buy food (selling jewelry ..)	67.0%	66.3%
Using the stored up for emergency (reserved)	51.1%	49.4%
Renting land they own	5.3%	4.8%
Borrowing money and grocery to provide food	86.2%	57.8%
Selling some property from land or livestock	41.5%	61.4%
Requesting assistance from humanitarian organizations	63.8%	55.4%
Sending some family members to seek help from the rich (begging)	23.4%	21.7%
Reducing adults' consumption of food to allow saved food for children	29.8%	41.0%
Prioritizing food for family members	11.7%	19.3%
Stopping children from education to work and making a living	60.6%	62.7%
Reducing health care budget	36.2%	61.4%
Sending family members to live with relatives	7.4%	8.4%
Stopping education of children for the purpose of getting a job and making a living	39.4%	33.7%
Marrying off the young girls (under the age of 18)	21.3%	15.7%
Moving of the family to another place if the situation continues	8.5%	4.8%
The head of family searches for additional jobs to earn more money	58.5%	55.4%
Immigrating abroad	27.7%	19.3%

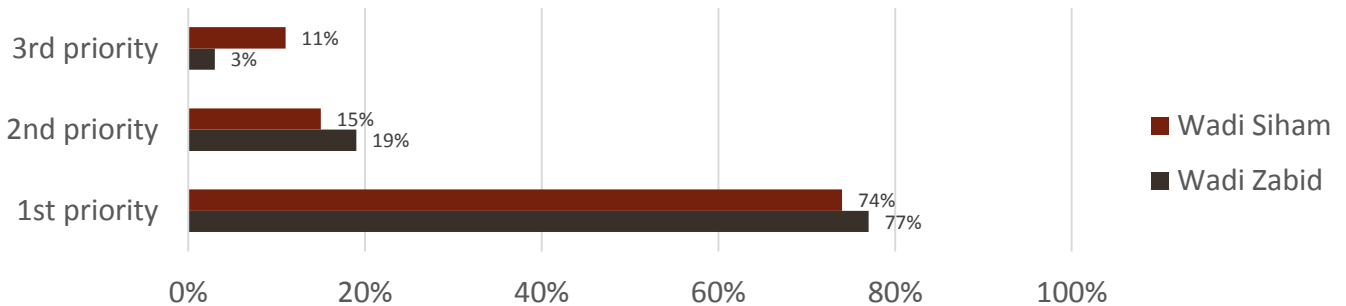


Coping Mechanisms & Relief Measures

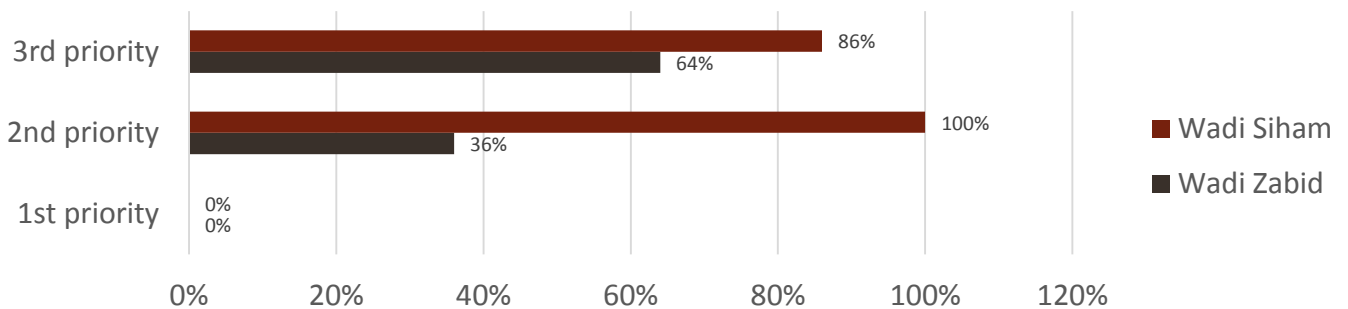


Relief Measures (Relief Campaigns Priorities)

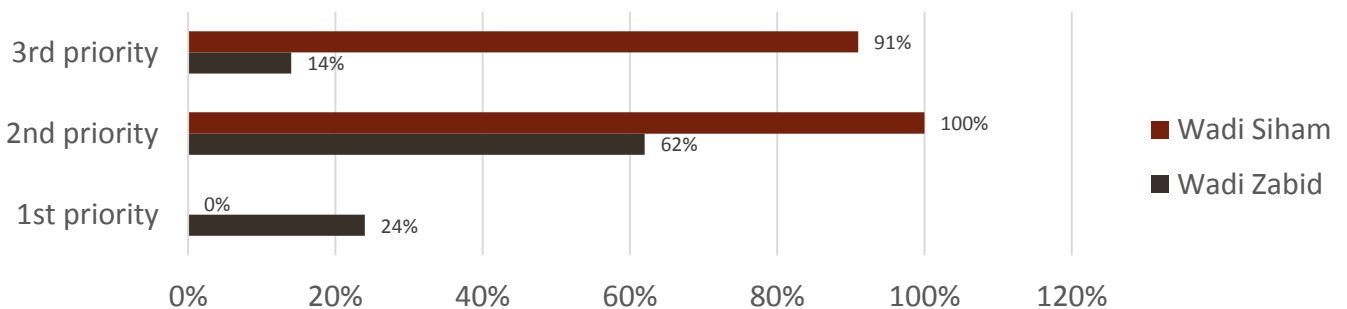
Distribution of food baskets



Health care services



Distribution of financial aid



Provision of agricultural production requirements

