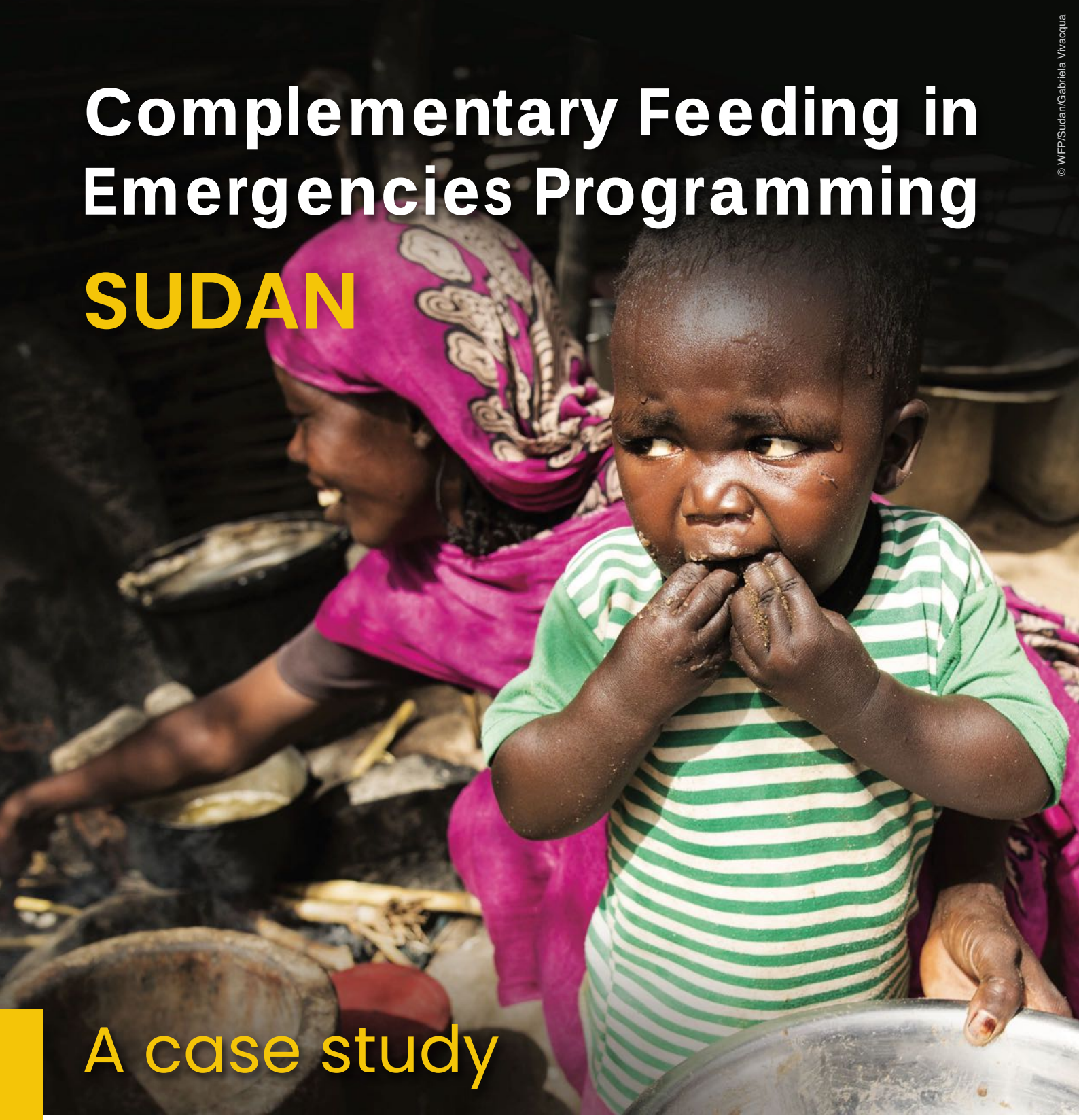
Complementary Feeding in Emergencies Programming

SUDAN



A case study

Based on the UNICEF action framework for improving the diets of young children during the complementary feeding period

February 2022

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IFE CORE GROUP

Contents

Acronyms

BFCI	Baby-friendly Community Initiative
BMS	Breastmilk substitutes
CF	Complementary feeding
CFE	Complementary feeding in emergencies
CMAM	Community-based management of acute malnutrition
Code, the	The International Code of Marketing of Breastmilk Substitutes
FMOH	Federal Ministry of Health
IDP	Internally displaced people
IFE-CG	Infant and Young Child Feeding in Emergencies Core Group
IYCF	Infant and young child feeding
IYCF-E	Infant and young child feeding in emergencies
MCTT+	Mother and Child Cash Transfer Plus
MDD	Minimum dietary diversity
M&E	Monitoring and evaluation
MICS	Multiple indicator cluster survey
MNP	Micronutrient powder
MOA	Memorandum of agreement
MSG	Mother support groups
MUAC	Mid-upper arm circumference
NGO	Non-governmental organisation
NIPP	Nutrition Impact and Positive Practice
NNP	National Nutrition Programme
OCHA	Office for the Coordination of Humanitarian Affairs
OTP	Outpatient therapeutic feeding programme
OG-IFE	Operational Guidance on Infant and Young Child Feeding in Emergencies
PHC	Primary Health Care
SC	Stabilisation centre
SUN	Scaling Up Nutrition
SBCC	Social and behaviour change communication
SMOH	State Ministry of Health
SOP	Standard operating procedure
S3M	Simple spatial surveying method
TWG	Technical working group
UNICEF	United Nations Children's Fund
USI	Universal salt iodisation
WASH	Water, sanitation and hygiene
WFP	World Food Programme
WHO	World Health Organization

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Executive summary

Why we did this case study

The complementary feeding (CF) period (6-23 months) is a critical period in a child's life and ensuring an appropriate diet is important to prevent malnutrition. Emergencies are especially critical as infant and young child feeding (IYCF) may be jeopardised. It is therefore vital to prioritise supporting families with children 6-23 months, in emergencies in particular, to ensure access to appropriate complementary foods, promote positive feeding practices and facilitate optimal growth and development.

The Infant and Young Child Feeding in Emergencies (IFE) Core Group provides recommendations for complementary feeding in emergencies (CFE) interventions. In a review of CFE that we conducted in 2019, we identified that there was a gap in the 'how-to' of supporting the diets of young children in emergencies. In early 2020, UNICEF launched a document 'Programming Guidance for Improving Young Children's Diets During the Complementary Feeding Period' which provides an Action Framework to improve the diets of children 6-23 months of age[1]. We therefore decided to examine the interventions and actions implemented in emergencies using the Action Framework as a tool.

What we did

We undertook a series of case studies in two countries – Sudan and Nigeria – where some progress towards improving CF programming in emergencies had been reported and key complementary feeding (CF) actions and interventions to improve young children's diets had been documented. We hoped that the learnings from these two countries would provide greater insights for both country-level practitioners and global-level decision-makers on the 'how to' of CFE programming and contribute to improving CFE programming.

How we did it

We used a case study methodology to collect information from multiple sources including a country-level document review, an online survey questionnaire and key informant interviews. We classified data by themes following the logic of the Action Framework within the UNICEF Programme Guidance for Improving the Diets of Young Children During the Complementary Feeding Period. We then reported on the various components of CFE programming that emerged from this analysis.

What we found

Using the template of the Action Framework, we have summarised the findings of this case study in **Figure 1** – the template appears in the background and our findings in yellow notes.

What did this case study contribute?

Several learnings emerged from this exercise of documenting CFE interventions in Sudan using the Action Framework and the UNICEF CF Programming Guidance:

1) Having a package of interventions that is contextualised enables a more effective response to context-specific needs.
2) Undertaking detailed situation analyses and examining the drivers of CF practices provided the necessary knowledge to guide the design and action of interventions.
3) Joint planning and a shared vision amongst different actors and systems strengthens the outcomes of CFE programming.
4) Localised initiatives that provide a comprehensive package of CF interventions and that build the evidence on impact may contribute to building the momentum for scale-up and adoption at the national level to maximise impact.

Finally, the Action Framework was a useful tool as it helped to lay out the different components and stages of CFE programming and identify potential opportunities at different levels and through various channels. It may therefore be useful for other countries to consider using this to plan, prepare for and implement CFE interventions. Nevertheless, it is still necessary to examine different settings including contexts where CF is not prioritised and therefore not yet established.

[1] The Action Framework is presented in the Programme Guidance for Improving Young Children's Diets during the Complementary Feeding Period (UNICEF, 2020).

Figure 1 CFE Programming using the action framework in Sudan

- Situation analysis conducted
- Major concern = Wasting & Low dietary diversity
- With key drivers of CF = Education & Wealth
- Barriers and challenges to CFE programming included context related (security risks, food insecurity, poverty, social norms) and programming-related factors (poor implementation of the Code and access to remote communities)

How
- Strong coordination mechanisms
- Government leadership through National Nutrition Programme
- Joint planning for nutrition between different sectors
- Respond to gaps identified in the situation analysis

What
- Improve access to diverse and nutritious foods
- Planning and development of guidance on CF
- Actions implemented as part of a national IYCF strategy
- Counselling and SBCC tailored to context

- No impact evaluations conducted on outcomes of existing interventions (mother support groups, behaviour change techniques)
- Positive outcomes on caregiver feeding behaviour reported

STRATEGIC ACTIONS
(in collaboration with the Government, UN and other partners)

SITUATION ANALYSIS

	Policy	Institutional (Public & Private)	Community/Household/Individual
FOOD AVAILABILITY AND ACCESSIBILITY	- Support for salt iodisation and food fortification national policies - Close and joint planning between food and nutrition sector to address the causes of malnutrition	- Behaviour change interventions - Blanket supplementary feeding at the onset of emergencies. - Targeted supplementary feeding in areas with high malnutrition rates - Salt iodisation	- Home gardening - Provision of seeds and seedlings - Cooking demonstrations - Visits to the local market - Recipe development
HEALTH AND NUTRITION SERVICES	- IYCF strategy as the guiding framework for action related to IYCF. - Sudan IYCF-E Operational Guidance	- One-on-one counselling at health facility (integration of IYCF within OTPs) - Creating contact points for counselling - Capacity building for services providers on CF Monitoring visits and supportive supervision Cooking demonstrations	- Home fortification – provision of MNP as a national initiative. - Mother support (and father support) groups - Counselling and cooking demonstrations - Strengthen the delivery of community-based nutrition services
WATER, SANITATION AND HYGIENE	- Joint SOP for integration of IYCF, WASH, and CMAM - Close coordination with WASH sector	- Building water stations at health facility level - Access to water at facility level - SOPs highlighting the integration of WASH and IYCF at the facility level - Food safety and hygiene messages integrated within IYCF activities including one-on-one counselling-	- Planning between the WASH and nutrition sectors is jointly done to ensure water access to households and communities implementing home and community gardens - Food safety and hygiene awareness
SOCIAL PROTECTION SERVICES	- Social protection interventions in Sudan are built on nutrition vulnerability criteria with priority given to nutritionally vulnerable families and areas with the lowest food security	Cash assistance to pregnant women and mothers of children under two years of age Nutritional vulnerability criteria taken into account in government initiative which targets areas with high wasting.	

DELIVERY SYSTEMS

OUTCOMES

Improved diets for young children
6-23 months

Improved access to and consumption of **nutritious, safe, affordable & sustainable** *diets of young children*

ENABLING PROCESSES
(to assess critical bottlenecks)

PROGRAMMING CONTEXT
(Food security situation, humanitarian crisis, political & economic instability, etc.)

MONITORING, LEARNING & EVALUATION

- Food insecurity addressed through direct food assistance
- Emergency preparedness ensured through existing plans and provisions
- Existing interventions scaled-up
- Investments for CF interventions increased
- Reporting systems strengthened to provide evidence on the outcomes of interventions and to increase funding
- CF interventions delivered as part of an integrated programming using the multi-sector approach

- IYCF (including CF) indicators are monitored by the Federal Ministry of Health with support from partners
- Indicators on counselling and support groups integrated within the National Nutrition Programme

- Complex emergency context with multiple settings (conflict, infectious disease outbreaks and drought)
- CFE interventions are adapted to each context (stable, possible access and limited access) - Piority is given to lifesaving interventions during acute emergencies
- The policy environment to support CFE appears to be strong with various policies, strategies, plans and guidance present to govern IYCF and IYCF-E actions (except for the Code) - Main policy documents include a national IYCF strategy, the recently developed National Nutrition Policy and the IYCF-E Operational Guidance

Introduction

The period between six and 23 months of age – the complementary feeding (CF) period – is a critical period in a child's life. Ensuring continued breastfeeding and access to a diverse, safe and adequate diet during this period is vital as it provides the child with the essential nutrition for proper growth and development and has been shown to prevent all forms of malnutrition. The period of introduction of complementary food is particularly important as young children are at an increased risk of becoming undernourished. Emergencies are especially critical as infant and young child feeding (IYCF) practices may be jeopardised due to poor access to adequate nutritious food to which families are accustomed to, clean and potable drinking water and quality health services as well as deteriorating nutrition-related practices due to family disruptions. Emergencies are also special circumstances where access to services for vulnerable populations may be hindered or hampered. It is therefore vital to prioritise supporting families with children 6-23 months of age, in emergencies in particular, to ensure access to appropriate complementary foods, promote positive feeding practices and facilitate optimal growth and development.

Because the support for complementary feeding in emergencies (CFE) has been reported to be a gap in programming in emergency contexts, several actions have been taken in recent years to support CFE programming including:

- In 2017, the Infant and Young Child Feeding in Emergencies Core Group (IFE-CG) updated its operational guidance on infant and young child feeding in emergencies (IYCF-E) which provided additional recommendations for interventions and actions to support CFE (IFE-CG, 2017).
- In 2019, the same group conducted a review of CFE which identified the main gaps[2] affecting CFE programme implementation (ENN & IFE-CG, 2020).
- In early 2020, UNICEF launched a document 'Programming Guidance for Improving Young Children's Diets During the Complementary Feeding Period' which provides a framework for action for improving the diets of children 6-23 months of age (referred to as the 'Action Framework' in this report) (UNICEF, 2020).

As a next contributing step to improving CFE programming, a series of case studies was undertaken in two countries where some progress towards improving CFE programming in emergencies had been reported – i.e., Sudan and northeast Nigeria – so that learnings from those two countries would provide insights for both country-level practitioners and global-level decision-makers on the 'how to' of CFE programming.

The case study presented in this report aims to document the CFE interventions and actions implemented in Sudan[3] using the UNICEF Action Framework as a tool.

[2] Gaps reported in the review included 1) gaps in coordination and leadership, 2) lack of capacity for assessment, 3) lack of funding, 4) challenges with providing commodities and supplies to meet the needs of children 6-23 months, 5) lack of CFE-specific preparedness plans, and 6) perceived gaps in CFE programming capacity.

[3] A similar report was written to cover northeast Nigeria which can be found here.

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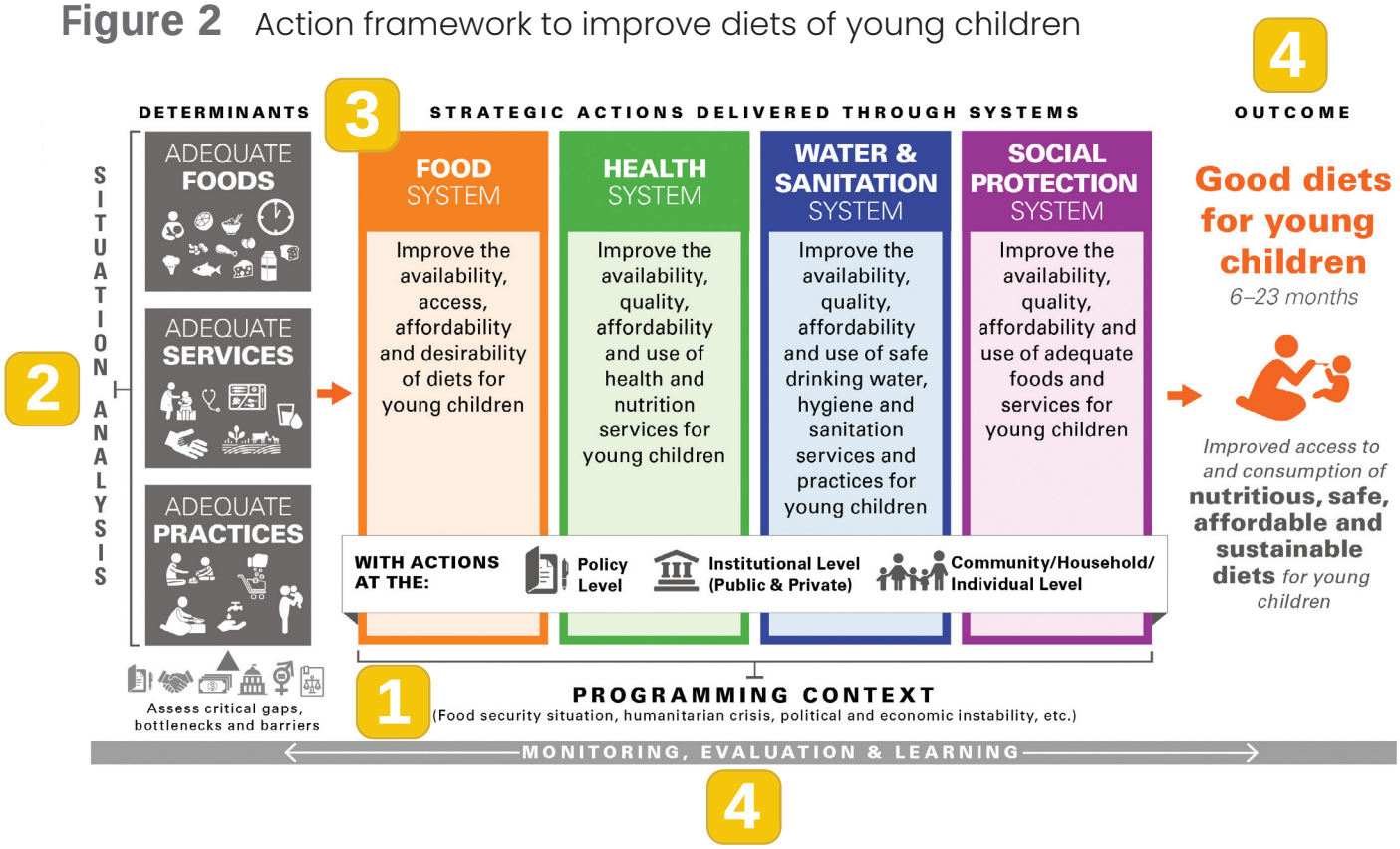
Methods

A case study methodology was used to collect information. Data was collected from multiple sources including a country-level document review, an online survey questionnaire and key informant interviews. Data was classified by themes and the various components of CFE programming that emerged from the analysis were reported following the logic of the Action Framework (summarised in **Figure 2**).

Following that logic, each of the four sections of the case study examines one of the four components of the Action Framework (numbered 1 to 4 in **Figure 2**), i.e.:

- A description of the programming context (**Section 1**)
- The actions related to the analysis of the nutrition situation including the drivers and barriers of CF (**Section 2**)
- The overall actions and activities reported to be implemented to improve children's diets during the CF period (**Section 3**, with **Table 5** that provides a summary of these interventions)
- An overview of monitoring, evaluation and learning including the reported outcomes as a result of these interventions (**Section 4**).

Figure 2 Action framework to improve diets of young children



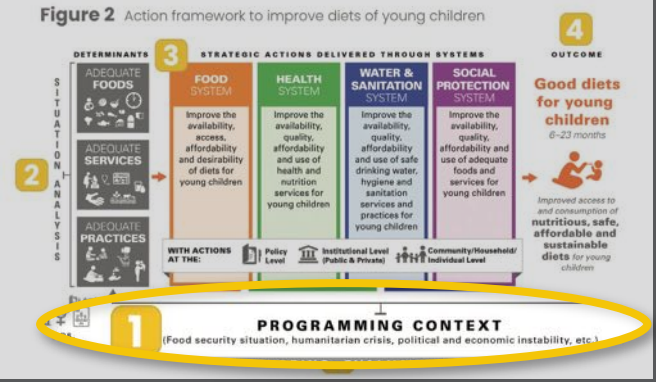
Source: UNICEF programming guidance

Findings

CFE programming in Sudan

Figure 1 is a visual summary of the findings using the Action Framework and Annex 1 is a summary of the findings aligning with the recommendations from the UNICEF CF Programming Guidance.

Section 1
Programming context



1.1 Humanitarian situation overview

What was the setting in which the country programming was implemented, i.e., what was the nature of the emergency (including nutrition) ?

Sudan has a long history of conflict and humanitarian crises that persist today (**Box 1**). At present, humanitarian needs in Sudan continue to grow due to ongoing armed conflicts in the Darfur region and South Kordofan and Blue Nile states. This is compounded by rising food prices and currency devaluation, the impacts of the COVID-19 pandemic and cholera outbreaks and extreme weather events such as drought and flooding.

In 2021, over a quarter of the Sudanese population (14.3 million) were reported to require humanitarian assistance with 2.5 million internally displaced people (IDP) and 1.1 million refugees mainly from South Sudan and Ethiopia (OCHA, 2021d). An estimated 7.3 million Sudanese faced high levels of acute food insecurity and required urgent assistance (IPC, 2021) with some regions being inaccessible by humanitarian actors due to security risks.

Approximately three million children under five suffered from wasting in 2020 and the nutrition situation of children and the prevalence of different types of malnutrition have not improved over the past three decades (UNICEF Sudan, 2020).

The existing conflicts, along with the impacts of political and economic instability, climate change and infectious disease outbreaks, drive poverty and food insecurity that challenge the adequate diets of young children (refer to **Section 2**).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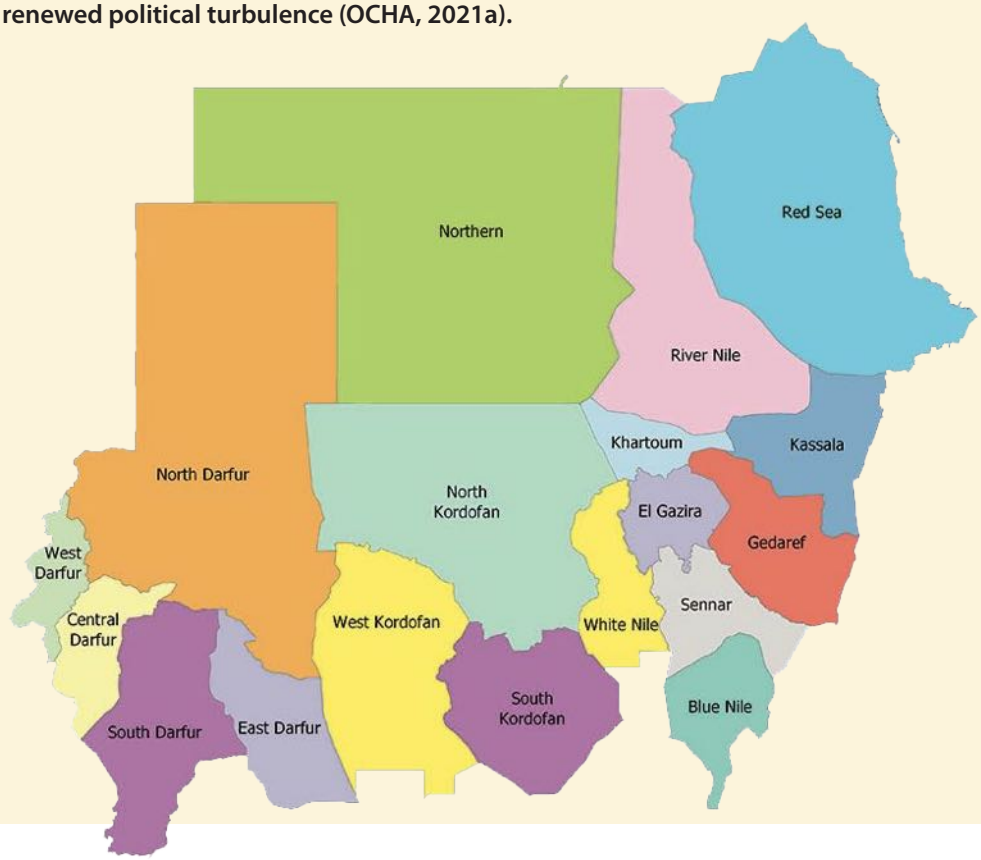
Box 1 Background about Sudan

Sudan is a country in northeast Africa that lies in the Sahel region between sub-Saharan Africa and the Middle East, bordering the Red Sea. Prior to the secession of South Sudan in 2011, it was the largest country in Africa by geographic area; it is now the third-largest country in Africa and has a population of over 46 million. Most of the population is ethnically Arab and Sunni Islam is the predominant religion. Before becoming a secular state in 2020, Islam was the official state religion and Islamic law was observed (CIA World Factbook, 2021).

Sudan is a low-income country that ranked 170 out of 189 countries in the Human Development Index (UNDP, 2021). The economy was driven by the oil sector until the secession of South Sudan in 2011 which resulted in the loss of three quarters of its oil production (CIA World Factbook, 2021). The oil sector had previously provided over half of government revenues and 95% of its exports and its loss created an economic shock that continues to destabilise the Sudanese economy (World Bank Group, 2021).

Most of the population relies on subsistence agriculture for survival and 12% of the population live in extreme poverty with 36% below the national poverty line (World Bank Group, 2020). From its independence in 1956, Sudan has been embroiled in internal conflicts that have impeded socioeconomic development. Over five decades, Sudan fought two protracted civil wars fuelled by differences in language, religion and political power between the largely Islamic north and Christians and animists in the south (CIA World Factbook, 2021). Following a peace agreement in 2005, South Sudan became an autonomous state and seceded in 2011.

Between 1989 and 2019, Sudan experienced a brutal military dictatorship led by Omar al-Bashir who is accused of widespread human rights abuses including genocide during the war in the Darfur region (International Criminal Court, 2021). A revolution in 2019 removed the al-Bashir government and installed a transitional government with civilian and military components. However, rising tensions between these two groups culminated in a military coup d'état in October 2021, displacing the civilian government and leading to renewed political turbulence (OCHA, 2021a).



1.2 Coordination mechanisms and structures

Who were the main actors supporting the diets of young children and what coordination mechanisms existed ?

At the national level, the nutrition directorate – part of FMOH – is the home of the National Nutrition Programme (NNP) which guides the nutrition actions implemented by partners to improve nutrition in Sudan (National Nutrition Policy, 2021). IYCF and IYCF-E (including CF) are part of the NNP programme (**Figure 3**).

The **Nutrition Sector** in Sudan, **led by the Federal Ministry of Health (FMOH)**[5] and co-led by UNICEF, plays a critical role in coordinating overall nutrition humanitarian response including CFE although particular groups have been created for IYCF, IYCF-E and CF (**Table 1**). The Nutrition Sector has over 54 members including the World Health Organization (WHO), the World Food Programme (WFP) and local and international non-governmental organisations (NGOs) who support nutrition and implement the main nutrition interventions through the health system. The Nutrition Sector coordinates closely with the Food Security Sector (co-led by the Ministry of Agriculture and Forests of Sudan, WFP and the Food and Agriculture Organization, the water, sanitation, and hygiene (WASH) cluster (led by UNICEF) and the Office for the Coordination of Humanitarian Affairs (OCHA). This coordination includes mainstreaming activities for improving the diets of young children as well as joint planning (refer to section 1.3 for existing joint plans).

The national Nutrition Sector Advisory Group, also led by the FMOH, works on technical issues and planning prioritisation discussions such as for the Humanitarian Needs Overview (HNO). The Group closely coordinates with social protection and other sectors.

In coordination with the NNP and the Nutrition Sector, a number of groups have been formed at the national level to coordinate and provide technical support for IYCF and IYCF-E interventions including the IYCF Technical Working Group (TWG), the IYCF-E Taskforce and the recently established Technical Committee on CF all led by FMOH with support from UNICEF and other agencies (**Table 1**).

[4] Diagram constructed based on the interviews with key informants

[5] In Sudan, there is one Federal Ministry of Health (FMOH) and 18 State Ministries of Health (SMOH). The federal level is responsible for the provision of nation-wide health policies, plans and strategies while the state level is concerned with state's plans based on federal guidance and plans. Implementation and service delivery occurs at the locality level within each state.

Figure 3 Structure of the national nutrition programme in Sudan[4]

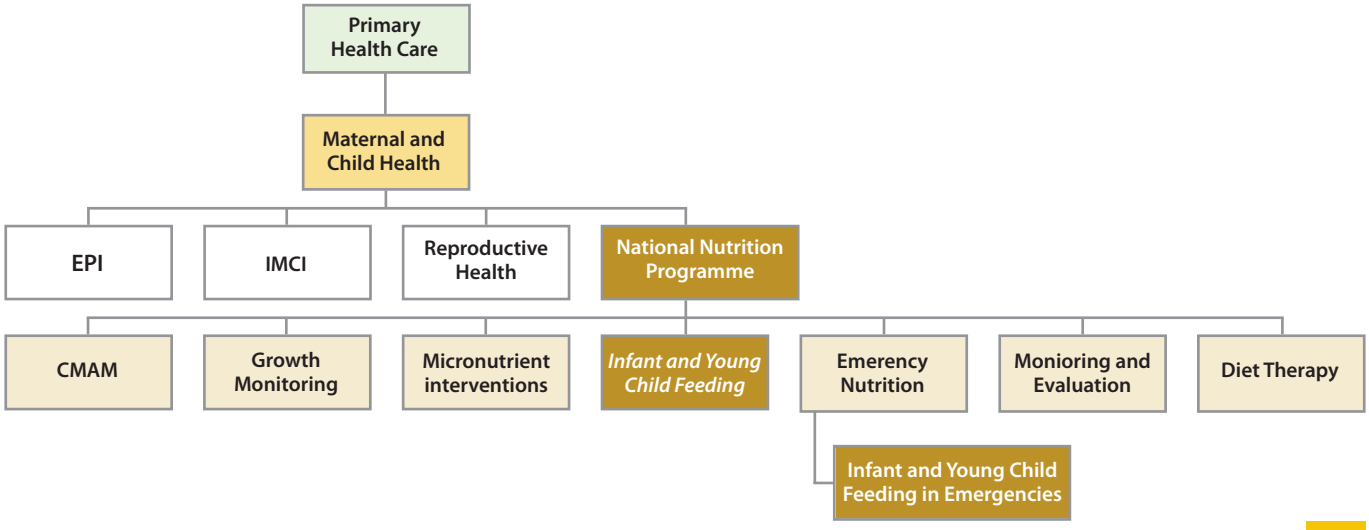


Table 1 IYCF and IYCF-E coordination and technical platforms in Sudan

1. IYCF TWG	
Leadership and members	**Function**
Chaired by the FMOH Formed in 2020 as a result of findings related to poor IYCF practices 20 members include FMOH and relevant departments, UNICEF, WFP, WHO, NGOs, academia, representatives of nutritionists in Sudan, National Council for Child Welfare, Save the Children and Al Manar	• Developing plans and prioritising actions to improving IYCF • Developing evidence-based guidance and recommendations related to IYCF • Strategy review, updates and development • Establishing directives for the coordination and integration of IYCF within various sectors • Capacity-building
2. IYCF-E Taskforce	
Leadership and members	**Function**
Chaired by the FMOH and co-chaired by the Nutrition Sector with support from UNICEF, WFP and WHO Members include Nutrition Sector partners engaged in IYCF-E related functions Housed under Emergency Nutrition (Figure 3)	• Provide technical support and guidance on IYCF-E • Develop IYCF-E national guidelines and other tools • Facilitate operationalisation of IYCF-E guidelines through capacity development activities and supportive supervision • IYCF-E reporting and monitoring plan • Support process of legislation of the International Code of Marketing of Breastmilk Substitutes • Develop IYCF-E plan and follow up on implementation • Support establishment and functioning of sub-national IYCF-E working groups.
3. Technical Committee on Complementary Feeding	
Leadership and members	**Function**
Chaired by the FMOH Recently established members include FMOH, UNICEF, WHO and GOAL and representatives from the WASH, food security and social protection sectors Subgroup of IYCF (Figure 3)	Aims to oversee and implement the 'CF bowl' initiative in coordination and consultation with the relevant authorities and state nutrition departments.

Box 2 SUN movement in Sudan

In 2015, Sudan joined the Scaling Up Nutrition (SUN) Movement. The SUN Secretariat has been placed under the FMOH. SUN activities have been greatly affected due to the political situation in the country. However, since December 2020, the SUN Secretariat has been reactivated and is working with the government and stakeholders to strengthen nutrition governance. Five networks have been established to work together to address nutrition issues across different sectors: the UN Network, the Civil Society Alliance, the Business Network, the Donor Network and the Research and Academia Network. Recent outputs include the development of multi-sector platforms and supporting the government-led development of the Common Result Framework.

1.3 Policies, plans and guidance

What was the policy environment related to complementary feeding and IYCF ?

The policy environment to support and drive CFE in Sudan appears to have been getting stronger over the past few years, with the exception of the International Code of Marketing of Breastmilk Substitutes (the Code)[6] legislation, with various policies, strategies, plans and guidance present to govern IYCF and IYCF-E actions including CF in Sudan (details in **Annex 2**):

- **Sudan Infant and Young Child Feeding Strategy (2015-2025)** (Sudan ICYF Strategy, 2015) This key strategy document provides a complete overview of IYCF in Sudan and was cited by most interviewees. The strategy highlights the importance of supporting CF and includes actions and targets for improving CF.
- **National Nutrition Policy** Endorsed in 2021, this policy is considered the main guiding document for actions related to the treatment and prevention of malnutrition. It includes strategic objectives and actions to improve the dietary intake of young children including individual IYCF counselling and the provision of micronutrient powders (MNP).
- **Sudan Infant and Young Child Feeding in Emergencies Operational Guidance (2021**) (Sudan IYCF-E OG, 2021). This guidance contains a thorough construct of different IYCF-E services including CF. It was developed under the umbrella of the IYCF TWG and IYCF-E Taskforce to provide standards for the implementation of IYCF-E activities in line with the Sudan IYCF Strategy. It draws on the IYCF-E Operational Guidance (IFE-CG, 2017) and applies to emergency preparedness, response and recovery with the aim of minimising maternal and infant and young child morbidity and mortality associated with feeding practices.
- **IYCF Integration Multi-Sectoral Guidance** This guidance was developed to introduce IYCF for all humanitarian and development partners across the Sudan response as well as an overview of IYCF integration within all sectors.
- **Breastmilk substitutes (BMS) regulations.** These regulations have been updated and drafted into a law that legislates the Code. However, this law has not yet been endorsed[7] and therefore Code legislation remains a gap although actions have been taken to activate a monitoring system of Code violations as well as prescription procedures for BMS by the IYCF TWG.

[6] The Code refers to the International Code of Marketing of Breastmilk Substitutes and subsequent resolutions

[7] It was reported that the law has been drafted for some time. However, it has not yet been endorsed due to the political situation of the country and multiple changes that are occurring.

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1.4 Adapting to programming context

What adaptations were put in place for different contexts ?

Considerations for emergencies:

"In sudden onset emergencies, immediate responses may include provision of food assistance, safe drinking water, and cooking equipment. In cases of migration, the provision of nutrient-rich complementary foods through onsite supplementary feeding programmes and the distribution of food rations for households with young children may be prioritised. In economic and slow onset emergencies, ensuring sustained access to nutritious and healthy complementary foods may require reliance on cash transfers (or similar programmes), which can be used to increase household resources for food and improve access to nutrition services"

Retrieved from the CF Programming Guidance (UNICEF, 2020)

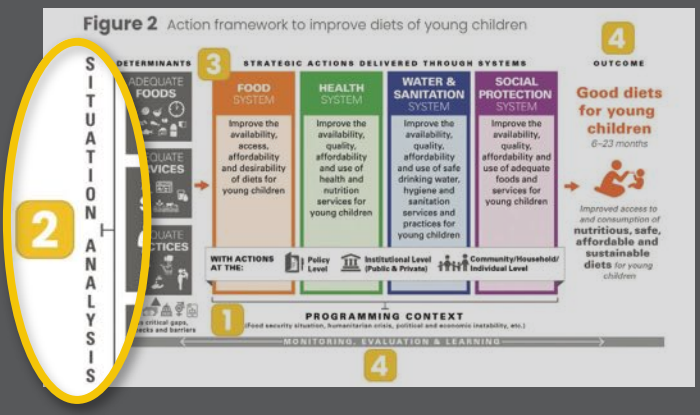
Nutrition interventions in general, and specifically activities to improve the diets of young children, were delivered in different areas in the country following the national IYCF strategy and recently using the IYCF-E Operational Guidance (**see section 1.3**). Programmatic adaptations were put in place by the IYCF-E taskforce and in the IYCF Operational Guidance for Sudan's complex context (**Annex 3**). For example, during the onset of emergencies (floods, disease outbreaks etc.) and for areas where access was limited or areas that suddenly became inaccessible, priority lifesaving activities were implemented including initial blanket supplementary feeding, the management of wasting and micronutrient distribution. The guidance emphasises the importance of having localised response plans in place as they allowed an ongoing and harmonised response especially when access was limited. The guidance also recommends that emergency preparedness remains a core element of the IYCF-E response. Sudan has also been undertaking risk assessments and a vulnerability mapping exercise to identify hotspot areas that are most vulnerable to be prioritised for nutrition interventions.

Key learnings from Section 1

- **Sudan represents a unique complex emergency context with multiple settings in which CF programming was taking place including conflict, infectious disease outbreaks and extreme weather events, all of which negatively impacted poverty and food security and led to a need for humanitarian response.**
- **Strong coordination mechanisms for nutrition and CFE were put in place. The government led on CFE interventions. Partners provided technical support and helped to increase the coverage of activities. Multiple IYCF and IYCF-E platforms supported the planning and development of guidance related to IYCF and IYCF-E. One group was recently formed to focus on CF.**
- **Policy and legislative frameworks were in place to support CFE including a national IYCF strategy and recently developed IYCF-E Operational Guidance, although legislation of the Code is still a gap.**
- **CFE programming did not happen as a standalone intervention. It was included within the wider maternal and IYCF agendas.**
- **Interventions were adapted to each context (localities with a relatively stable protracted situation, localities with possible access and localities with limited access) and priority was given to lifesaving interventions during acute emergencies.**

Section 2

Nutrition situation analysis: Drivers and barriers of young children's diets



2.1 Nutrition situation analysis

What evidence was collected/analysed to guide and inform CFE interventions

Considerations for emergencies:

"In emergency contexts, it is also important to understand pre-existing nutrient gaps versus those that have been exacerbated by the situation. There is also a need to understand the risks inherent in emergency contexts and identify the actions needed to strengthen systems or enhance preparedness to ensure that programmes can scale up or down in response."

Retrieved from the CF Programming Guidance (UNICEF, 2020)

A nutrition situation analysis for CF programming was conducted in Sudan to guide programming. The main sources of data used were the Simple Spatial Surveying Method 2018 (S3M II) and the 2014 Multiple Indicator Cluster Survey (MICS) that highlighted the high prevalence of wasting (14%, S3M II) and stunting (36%, S3M II) as well as sub-optimal IYCF practices (**Box 3** and **Table 2**).[8,9] Other surveys mentioned by interviewees included the micronutrient survey conducted by the WFP, a knowledge, attitudes and practices survey and a few localised surveys in emergency affected areas. The recently launched National Nutrition Policy recognised the need for situation analysis, highlighting the importance of understanding the multi-causal nature of malnutrition for tailored planning and programming (Sudan FMOH, 2021).[10]

The main conclusion drawn from the situation analysis was that breastfeeding rates were improving whereas CF indicators showed a major gap. Surveys showed a potential improvement in exclusive breastfeeding rates from 55% (MICS) to 62% (95% confidence interval: 44.0-80.6%) (S3M II).[11] The surveys both highlighted sub-optimal CF practices, particularly low dietary diversity. Results from S3M II showed that 25% of infants and young children 6-23 months met the requirements for minimum dietary diversity (MDD); the MICS survey showed a similar rate of 28% (**Annex 4**). The rates were lowest in Darfur

[8] Wasting is defined as weight-for-height Z-score (WHZ) < –2 SD of the WHO Child Growth Standards median. Stunting is defined as height-for-age Z-score (HAZ) < –2 SD of the WHO Child Growth Standards median.

[9] Given the dynamic nature of the situation in the country, it was noted that results from S3M II may no longer be representative of the current situation.

[10] National Nutrition Policy & Key Strategies. Maternal and Child Health Directorate. National Nutrition Programme. Republic of Sudan Federal Ministry of Health. (2021).

[11] It is important to note, however, that given that the 95% confidence intervals overlap it is possible that there was no change in practices between surveys.

(Central, East, North, West: 19%, 7%, 17%, 19% respectively), the Red Sea (19%) and Blue Nile (18.6%) (S3M II). The report also highlighted interstate variability with the consumption of protein and vitamin A-rich food, where children in Kassala had the lowest consumption of protein and children in Blue Nile had the lowest consumption of vitamin A-rich food. This is in line with food insecurity reports from the WFP estimating that 7.1 million people were food insecure in South Kordofan, Darfur, Blue Nile, Kassala, Red Sea and North Kordofan states (OCHA, 2021b). These results were important to guide CFE programme planning and were reported to aid in prioritising certain areas for comprehensive CFE programming (e.g., Kassala – refer to **section 3**).

Box 3 Malnutrition in Sudan

According to the Sudan Humanitarian Needs Overview for 2021, malnutrition remains a major concern in Sudan with an estimated three million children suffering from wasting (OCHA, 2021c). The S3M II survey reported great variability in the prevalence of wasting and stunting across states. Wasting was highest in Red Sea state (30%) and lowest in Khartoum state (5%). In nearly half of all localities, stunting was greater than 40% (Sudan FMOH, 2018). Micronutrient deficiencies, specifically anaemia, remain a serious problem with a national prevalence of 48% among children 6-59 months. East Darfur state had the highest prevalence of anaemic children (66%) while West Darfur had the lowest (33%) (Sudan FMOH, 2018).

Table 2 IYCF indicators in Sudan

Indicator	MICS 2014	S3M 2018
Early initiation of breastfeeding	69%	-
Exclusive breastfeeding under 6 months	55%	62%
Continued breastfeeding at 2 years/age-appropriate continued breastfeeding	49%	73%
Timely introduction of complementary foods	61%	79%
Minimum meal frequency/age-appropriate meal frequency	41%	63%
Minimum dietary diversity/age-appropriate dietary diversity	28%	25%
Minimum acceptable diet (breastfed children 6-23m)	15%	–
The infant and child feeding index (ICFI), children 6-23m	-	3.75 (out of 6)
Children 6-23m who practiced good IYCF based on ICFI (breastfeeding + dietary diversity + meal frequency)	-	13%

2.2 Drivers of young children's diets (adequate foods, adequate services, adequate practices)

What were the drivers of young children's diets ?

Interviewees reported that the most salient drivers of malnutrition were 1) economical, 2) related to displacement, 3) the COVID-19 pandemic, and 4) sub-optimal feeding practices. The drivers of sub-optimal feeding practices were explored in a landscape analysis and an in-depth analysis of the MICS 2014 data (UNICEF, 2019; Shaker-Berbari et al., 2021).[12] This included a situation analysis of feeding practices as well as the enablers of and barriers to appropriate feeding practices amongst infants and young children 6-23 months of age in the Middle East and North Africa region including Sudan. The analyses identified certain determinants of CF including maternal age (with higher maternal age being significantly associated with meeting MDD), maternal and paternal education, wealth and access to antenatal visits. Qualitative data highlighted factors such as the cost of fruits and vegetables and access to clean water (**Table 3**).

The analysis of the MICS 2014 also showed differences in feeding practices between regions and reference was made to tribal communities having specific cultural practices and lacking adequate knowledge of IYCF.

Recommendations from the landscape analysis to improve feeding practices included actions tailored to the needs of the population at multiple levels (household, institutional, community and policy). Recommendations from the S3M II report highlighted the need to expand IYCF counselling activities with a focus on Eastern States as well as planning, designing and implementing integrated, long-term multi-sector programmes focusing on the first 1,000 days after birth.

[12] MICS 2014 data was used for the analysis as S3M II data was not available.

Table 3 Determinants of feeding habits of infants and young children 6-23 months in Sudan

Determinants of sub-optimal complementary feeding in Sudan*	Strength of perception**
Individual level	
Lack of awareness amongst mothers (knowledge)	+++
Educational status of mother	++
Early marriage/young mother	+++
Household level	
Influence of mother-in-law, mother, father, other family members or caretakers (housemaids) and other caretakers such as nurseries	+++
Poverty affecting access to food – high cost of fruits and vegetables	+++
Water pollution and other WASH factors	+++
Community level	
Cultural beliefs, traditions, habits, peer pressure	+++
Health care level (institutional)	
Access to healthcare (presence and quality of counselling including breastfeeding counselling)	++

**+++ very strong perceived relation with CF practices, ++ medium perceived relation with CF practices
*Source: UNICEF, 2018

2.3 Gaps, bottlenecks and barriers

What were the barriers related to implementing CFE activities ?

The situation analysis also included identifying gaps, bottlenecks and barriers. The programmatic environment in Sudan presents significant challenges to implementing programmes targeting children at CF age at scale as reported by the interviewees and **Table 4**.

Table 4 Gaps, bottlenecks and barriers to implementing CFE programming at scale

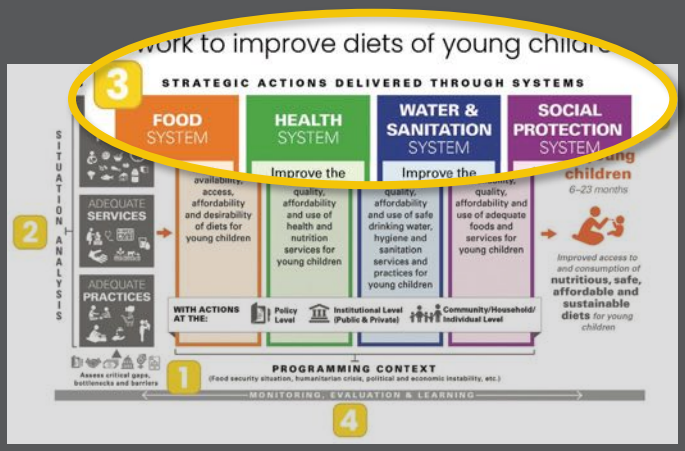
Context-related gaps, bottlenecks and barriers	
Insecurity	Protracted conflicts presented security risks that impeded humanitarian access to communities and large populations of IDPs and refugees.
Food insecurity	Widespread food insecurity led to households adopting negative coping mechanisms such as reducing meal frequency and dietary diversity. Perennial droughts and flooding exacerbated food insecurity for agro-pastoralists and farmers.
Socio-economic situation	Long-term instability has led to chronic poverty, currency inflation, fuel shortages, poor access to credit and farming inputs, limited infrastructure, low levels of education and literacy and homes with poor access to safe water and cooking facilities.
Social norms	Certain Sudanese social norms were reported as barriers to effective programming. Gender roles dictate that women are responsible for many household tasks, leaving limited time for childcare. Women do not control household assets and so they cannot make decisions to dispose of assets to meet the health and nutrition needs of the family. Early marriage and adolescent pregnancy result in infants being left with grandmothers if mothers return to school. Certain local food taboos may also impact on CF (e.g., chicken should not be fed to children as it may lead to deafness).
Programme-related gaps, bottlenecks and barriers	
Funding issues	Competing priorities for funding among donors, the need for the timely allocation of funding for emergency contingency plans and the lack of incentives for lead mothers in mother support groups were reported as barriers to implementation.
Low intervention coverage	Respondents indicated that effective implementation was constrained by low coverage, with some activities limited to some states only, and difficulty accessing remote communities, especially during the rainy season.
COVID-19 pandemic	Respondents indicated that the COVID-19 pandemic had hindered programme implementation due to reduced mobility and other restrictions.

Key learnings from Section 2

- **A situation analysis for CF programmes was conducted in Sudan to guide programming. The analysis was conducted using existing household surveys reporting on feeding practices as well as qualitative data (document review and interviews with key stakeholders).**
- **The analysis showed that:**
  - **Malnutrition and sub-optimal CF practices among children 6-23 months were a major concern in Sudan.**
  - **Low dietary diversity was the main factor in sub-optimal CF.**
  - **The main drivers of CF were maternal age, maternal and paternal education, wealth, access to antenatal visits, the cost of fruits and vegetables, access to clean water and certain cultural practices among tribal communities with limited knowledge of recommended IYCF practices.**
- **Findings from the analysis have helped to guide IYCF actions including prioritising improving dietary diversity amongst young children.**
- **Despite the analysis conducted using the most recent household surveys, there is still a need for updated data and analyses that reflect the current situation to guide and inform CFE interventions.**
- **Context-related gaps and challenges included insecurity, food security, socio-economic situation and social norms. Programming-related gaps and challenges included funding issues, low coverage and the COVID-19 pandemic.**

Section 3

Interventions and actions for improving young children's diets



3.1 Key interventions for improving children's diets

What activities were implemented in Sudan, at which level (policy, institutional and community) and through which channel

Considerations for emergencies:

"The approach should involve building institutional capacity and supporting the government to mitigate the effect of humanitarian crisis and facilitate sustainable recovery"

Complementary feeding interventions:

"Key interventions for improving young children's diets (…)" are recommended to be implemented based on "their supporting evidence base":

- *"Nutrition counselling and social and behaviour change communication*
- *Counselling and education on responsive feeding and stimulation*
- *Use of vitamin and mineral supplements in settings where nutrient-poor diets prevail*
- *Access to diverse and nutritious complementary foods at household level*
- *Access to fortified foods as needed, aligned with global and national standards*
- *Promote improved accessibility & use of safe complementary food, water & clean household environment*
- *Access to affordable and nutritious foods through social protection programmes and counselling services"*

Retrieved from the CF Programming Guidance (UNICEF, 2020)

In Sudan, interventions for improving young children's diets consisted of an array of interventions covering (partially or fully) those to improve young children's diets, as evidenced in the UNICEF CF Programming Guidance. These were implemented to address the gaps and bottlenecks identified in the situation analysis. Table 5 lists those interventions by grouping them according to the channel(s) that were used to deliver them (whether or not they were delivered through the health system, the food system, the WASH system or the social protection system). The right of the table shows the level at which those interventions were implemented, i.e., at policy level, institutional level (facilities) or community/household level.

Table 5 List of interventions for improving children diets implemented in Sudan

Intervention	Channel				Level		
	Health system	Food system	WASH system	Social Protection system	Policy	Institutions/ Facilities	Community/ household
A. Nutrition counselling and social and behaviour change communication							
1. One-on-one counselling at health facility level	✓				✓	✓	
2. Mother (and father) support groups	✓	✓					✓
3. Social behaviour change communication	✓	✓					✓
B. Use of vitamin and mineral supplements in settings where nutrient-poor diets prevail							
4. Home fortification and supplementation	✓	✓				✓	✓
C. Access to diverse and nutritious complementary foods at household level							
5. Home gardening and provision of seeds	✓	✓	✓				✓
6. Cooking demonstrations	✓	✓				✓	✓
D. Access to fortified foods as needed, aligned with global and national standards							
7. Salt iodisation	✓	✓			✓		✓
8. Blanket supplementary feeding	✓					✓	✓
9. Food-based prevention of malnutrition	✓	✓				✓	✓
E. Promote improved accessibility & use of safe complementary food, water and clean household environment							
10. Hygiene promotion and washing stations	✓	✓	✓		✓	✓	✓
11. Access to water	✓	✓	✓			✓	✓
F. Access to affordable and nutritious foods through social protection programmes and counselling services							
12. Cash assistance	✓			✓		✓	✓

1 One-on-one counselling at health facility

What? One-on-one IYCF counselling was provided at the majority of health facilities that provide nutrition services under primary health care centres as part of the Essential Nutrition Package and part of the IYCF strategy.

How? Mothers with infants less than two years of age who visited the health facilities for the treatment of malnutrition, immunisation or other services were assessed and referred to IYCF counselling where they received tailored counselling on breastfeeding, CF and handwashing. Counselling was done by using the IYCF counselling cards. Mothers and caregivers could also be referred from the community for IYCF counselling. The service was administered by the nutrition worker who provided one-on-one counselling to mothers and caregivers. In many states, satellite and mobile stations were used to provide nutrition services including counselling.

Where? Nationally.

2 Mother (and father) support groups

What? Mother support groups (MSGs) were created to provide IYCF counselling at the household and community level.

How? Volunteer lead mothers were selected from the communities and trained to provide household level counselling on IYCF including CF.

Where? Nationally with scaled up activities in Kassala. In Kassala state specifically, the Dietary Diversity Project supported by UNICEF was implemented where mother and father support groups were created to provide IYCF counselling as well as hands on cooking demonstrations and support with home gardening (See below and **Annex 4**).

3 Social behaviour change communication

What? SBCC to improve knowledge and practice related to CF.

How? Key messages about nutrition and dietary diversity were delivered to families and caregivers of young children including cooking demonstrations and hygiene awareness.

Where? In areas where families benefited from the WFP's supplementary feeding (see below). In north Darfur state, Kutum locality, GOAL Sudan through the Nutrition Impact and Positive Practice Initiative (NIPP) created family circles using SBCC targeting families with moderately malnourished children (**Annex 6**).

4 Home fortification

What? With support from the WFP, a home-based fortification programme with single-dose MNP sachets was implemented with the aim of reaching children 6-59 months.

How? The MNP (Vitamino) was procured by the WFP and provided to the Ministry of Health[13] to be dispatched and distributed at different levels including in health facilities and at the community level. MNPs were provided for free to all children under five with a mid-upper-arm circumference (MUAC) above 13 cm. Along with the provision of the supplements, mothers received key messages and education on the use of MNPs (also part of the MSGs).

Where? The programme has been implemented in 12 states.[14]

[13] WFP also partners with the private sector where MNPs are available on the market through retail.

[14] Micronutrient supplementation is implemented in Blue Nile, Central, East, North, South, and West Darfur, Gedaref, Kassala, North, West and South Kordofan and Red Sea.

5&6 Home gardening, provision of seeds and cooking demonstrations

What? Equipping families with the necessary tools and knowledge to use locally produced food and enable dietary diversity.

How? The Dietary Diversity Project (supported by UNICEF) has been implemented through existing mother support groups (see above and **Annex 5**). Along with the practical demonstrations of growing vegetables at home, families with children under two years of age received seeds (and often fruit seedlings) in order to establish their own home gardens. The objective was not only to contribute to food access but also to empower mothers to produce nutritious food. Cooking demonstrations including meals and recipe development from existing and available seasonal ingredients were conducted as part of the MSGs. The facilitator (often the lead mother) visited the market with the family to select nutritious and affordable food. Meals and recipes were created and cooked at the household level, accompanied by essential messages on food diversity.

Where? The intervention has been implemented in Kassala. In Kutum locality, micro-gardens and food demonstrations were part of the NIPP project (see **Annex 6**).

The concept gardening was piloted at the primary health care level in two facilities in an attempt to provide access to nutritious food. It was successful in one centre because of the availability of water and did not succeed in another as the area did not have access to a sustainable source of water. Again, seeds were provided to the centre and training was conducted for health advisors in primary health care who were in charge of maintaining the garden.

Box 4 Complementary feeding bowl initiative

UNICEF and WFP at the global level jointly developed a complementary feeding bowl and spoon as a practical, cheap innovation to contribute to improving CF practices at home. The initiative includes the development of a CF bowl with nutritional diversity messages included in the design to address food quality and signs to indicate age group within the bowl for food quantity. It also includes a slotted spoon to ensure food consistency. In Sudan, UNICEF partnered with the WFP and preparation is underway for the implementation of the initiative in four states in eight localities, including integrating it as a tool during counselling sessions and cooking demonstrations, and as an incentive to mothers who have completed their counselling sessions or the treatment of wasting or who have received micronutrient supplementation.

7 Salt iodisation

What? Implementing salt iodisation laws banning the use of non-iodised salt.

How? UNICEF and the WFP are supporting the implementation of salt iodisation in Sudan. As part of a Memorandum of Agreement with different UN agencies on the elimination of iodine deficiency disease through universal salt iodisation in Sudan, UN agencies provide support to update policies and strategies (such as the recent National Nutrition Policy) to ensure more emphasis on salt iodisation. State laws banning the use of non-iodised salt in 11 out of 18 states were issued although adherence to these laws varies among states. To increase demand, UNICEF is supporting the FMOH to implement awareness campaigns to increase demand for iodised salt utilisation. In addition to salt iodisation, tentative steps have been taken to develop standards and laws on wheat fortification through a cost benefit analysis of wheat flour fortification carried out in 2018, supported by the WHO. A draft food fortification law is also pending with the government. The WFP is also working on oil fortification which has not yet been activated.

Where? National.

8 Blanket supplementary feeding

What? Emergency blanket supplementary feeding to children 6-59 months of age in the aftermath of sudden shocks.

How? Children 6-59 months with no access to targeted supplementary feeding received blanket supplementary feeding (lipid-based nutrient supplements) at the onset of an emergency/sudden shock/displacement for a period of one to three months. This intervention aimed to prevent malnutrition and in the interim until an assessment had been done and wasting treatment was established.

Where? In areas that were affected by acute emergencies.

9 Food-based prevention of malnutrition – Targeted supplementary feeding

What? Supplementary feeding provided to children 6-23 months with MUAC above 13cms.

How? The WFP supported the provision of supplementary feeding to young children 6-23 months with a MUAC that was above 13cms as a way to prevent wasting and stunting and that is complementary to the treatment of wasting programmes.

Where? In areas that were food insecure and with rates of wasting that were higher than 20%.

10 & 11 Hygiene awareness and access to safe water and latrines

What? Access to clean water, building latrines and hygiene promotion and awareness.

How? WASH was integrated into IYCF and community-based management of malnutrition (CMAM) through a SOP which was developed jointly between the nutrition and the WASH sector. The SOP highlighted activities such as hygiene awareness and WASH messages, integration within IYCF counselling and education. At the same time, the SOP included the mobilisation and prioritisation of interventions to improve WASH practices such as the repair or construction of bore holes to provide access to clean safe water and improving the availability of latrines.

Where? In areas with poor access to safe water. Nationally (hygiene promotion).

12 Cash assistance

What? **The Mother and Child Cash Transfer Plus (MCTT+) Programme**, supported by UNICEF, has been implemented to target vulnerable pregnant and lactating women visiting the health facility aiming at increasing demand for health services and improving purchasing power to improve IYCF practices in general and CF in particular.

How? Mothers should have four counselling visits with the midwife to be eligible for cash assistance. This modality was adopted based on consultations with the community and FMOH stakeholders who had identified pregnancy as a critical period when women needed to be assisted with cash given the deteriorating economic situation. Mothers who were recruited were provided with cash throughout their pregnancy and until their child was 23 months. Primary health centres (PHCs) were used as the channel to dispatch the cash assistance.

Where? In Red Sea and Kassala states.

Considerations for emergencies:

"Provision of cash and food vouchers for households with children can provide vital support for improving children's diets during emergencies. It can prevent negative coping responses to food scarcity (such as reducing the number of meals per day), improve dietary intake and access to diverse foods for children"

Retrieved from the CF Programming Guidance (UNICEF, 2020)

Figure 4 Components of the MCCT+ programme

Three key Components of the Programme		
Regular and predictable cash transfer	Connecting cash with knowledge, skills & services	Social protection systems and capacity building of national systems
Additional purchasing power to meet unmet needs of pregnant and lactating women hit by the economic crisis	Dietary intake and diversity/nutrition, health, WASH, child care, child protection and livelihood programmes	Strengthen social protection systems and capacities; strengthen social welfare workforce

3.2 Leveraging the power of multiple systems in achieving good diets

What actions were taken to strengthen the health, food, WASH and social protection systems

Considerations for emergencies:

"When systems-strengthening efforts continue during emergencies they can promote community resilience and help institutionalise actions to improve children's diets over the long-term"

Retrieved from the CF Programming Guidance (UNICEF, 2020)

This case study examined the extent to which programming adopted a systems approach to leverage the potential of the food, health, WASH and hygiene and social protection systems to deliver nutrition results for young children. The approach required considerable coordination to secure a shared vision, joint planning, monitoring and accountability across multiple sectors. A number of actions were identified in Sudan under the health, food, WASH and social protection systems and are presented in **Annex 7** and below. These illustrate examples of joint planning between the different sectors (systems) in an attempt to improve nutrition and in particular CF practices.

Health system strengthening actions

The health system in Sudan is considered to be the main channel and a key platform for delivering nutrition services including skilled counselling, education, MSGs and social behaviour change interventions. The FMOH, leading on health, also leads on nutrition.

- At the policy level, the IYCF strategy and the recently developed IYCF-E Operational Guidance both took into account strengthening national health systems to ensure nutrition services were delivered via health facilities and communities.
- At the institutional level, contact points for counselling and activities such as micronutrient supplementation included growth monitoring, immunisation visits and the treatment of wasting. Service providers at the facility level (consisting of the nutrition team, midwife, nutrition worker etc.) were trained to provide IYCF counselling including CF. Outpatient therapeutic programmes (OTPs) were placed within the health facility and have IYCF messaging/counselling integrated within services. Monitoring visits and supportive supervision were implemented at the health facility and community level.
- At the community level, the creation of MSGs and the presence of lead mothers contributed to strengthening the delivery of community-based nutrition services.

Food system strengthening actions

Close and joint planning between the food and nutrition sectors had been reported for the implementation of interventions to address the underlying causes of malnutrition.

- At the policy level, support for salt iodisation and food fortification was ongoing while plans for oil fortification were underway. The home-based fortification programme was another national initiative. Specific actions were also implemented to address the reported cultural preferences that limit the acceptability of certain foods such as vegetables and eggs and to address the limited availability and affordability of nutritious foods in local markets.
- At the community level, activities contributing to increasing demand, improving access and promoting the use of local food included visits to local markets, food and cooking demonstrations, recipe development, the provision of seeds and seedlings and the establishment of home gardens implemented via the MSGs.

WASH system strengthening actions

Access to safe and potable water was a priority issue in Sudan and so the system was critical to protecting young children's diets. Efforts to improve access to basic water and sanitation services were reported to be prioritised in areas where stunting levels were high.

- At the policy level, an SOP for the integration of IYCF, WASH and CMAM had been put in place.
- At the institutional level, the SOP highlighted the integration of WASH and IYCF where WASH support was provided to health facilities providing counselling including building water stations (connecting water), latrines and showers for PHCs. Hygiene messages were integrated within IYCF activities including during one-on-one counselling.
- At the community level, planning between WASH and nutrition sectors was jointly undertaken to ensure water access to households and communities implementing home and community gardens. Hygiene education was included in the key messages and counselling was delivered through MSGs.

Social protection system strengthening actions

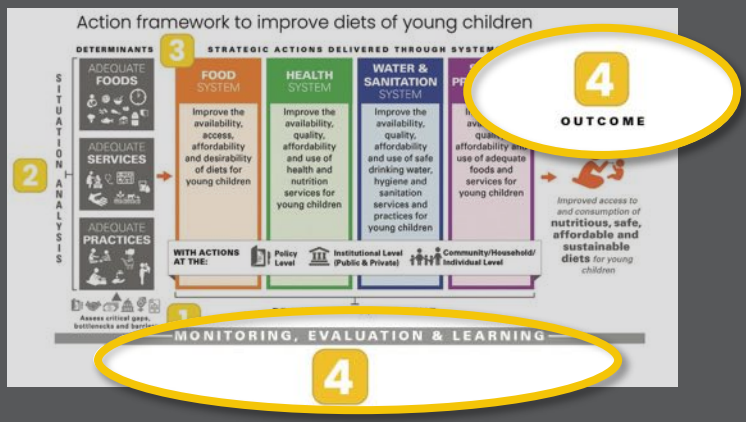
Interviewees highlighted that social protection interventions such as cash and food vouchers in Sudan were built on nutrition vulnerability criteria (wasting, food security indicators) with priority given to nutritionally vulnerable families and areas with the lowest food security. For example, cash assistance to mothers (part of the MCCT+ Programme mentioned above) was implemented in areas with a high level of wasting. Similarly, the government initiative, Thamarat, which consists of providing monthly cash assistance to vulnerable families over six months took into account nutritional vulnerability and targeted areas with high wasting.

Key learnings from Section 3

- **Actions for improving the diets of young children in Sudan were implemented as part of a national IYCF strategy. However, they went beyond the health sector and included access to food, social protection and WASH interventions.**
- **Interventions included nutrition counselling and SBCC provided alone or in combination with other interventions depending on the area of intervention. For example, in areas where food insecurity was high, counselling and SBCC were coupled with interventions to improve access to diverse and nutritious foods at the household level, such as home gardening, the provision of seeds, and cooking demonstrations. Supplementary feeding was also provided for vulnerable families as well as MNPs. Cash assistance and food distribution was also provided to families in vulnerable areas, specifically for pregnant mothers until their child was 23 months of age.**
- **The main channels of delivery of services were the health system (PHCs) and food system. The social protection system was also used to target families who were most in need. WASH was integrated with IYCF interventions including hygiene awareness, access to potable water and sanitation.**
- **System-strengthening actions were implemented as a way to influence policy, strengthen capacity at the institutional level and community/household levels. Actions to strengthen systems were implemented as part of a coordinated effort to improve the diets of young children.**

Section 4

Monitoring, evaluation, learning and reported outcomes



4.1 Monitoring and evaluation

What measures were in place to monitor progress and measure changes in the diets of young children

The monitoring of IYCF activities and indicators was integrated within the NNP. However, IYCF counselling reporting was separate and although included in the IYCF strategy as part of the 26 indicators, it was not included in the nutrition information system. Monitoring occurred through FMOH representatives at the locality, state and national levels. In each locality, a coordinator followed up with the activities at PHCs and community level and reported back to the state level coordinator. There were monthly monitoring visits conducted by state level coordinators to PHCs and communities. Also, at the locality level, monthly reports were submitted to coordinators. In addition to the locality level coordinator, nutrition assistants at the PHC and community level monitored the work and provided supportive supervision for lead mothers. Monitoring occurred in collaboration with UNICEF, with the latter often conducting joint visits with the FMOH and the SMOH.

UNICEF developed an IYCF reporting database that was reflective of the number of MSGs per state/ locality, counselling figures at health facilities and community level as well as the number of health professionals and MSGs/nutrition volunteers trained on IYCF counselling. This data was collected on a monthly basis, complied and shared with FMOH and the Nutrition Sector on a regular basis.

Box 5 Monitoring of the NIPP circle initiative

Specifically, for the NIPP Circle initiative implemented by GOAL and FMOH and similar to the national monitoring system, a monitoring and evaluation (M&E) team monitored activities. At the locality level, an M&E officer conducted weekly visits with the nutrition team leaders and provided supportive supervision. There were monthly reports from the field to the technical team at state level. At state level, the M&E manager conducted monthly visits with the nutritionists. A coordinator at Khartoum level conducted quarterly joint visits with FMOH to the locality and stayed for two weeks where quarterly review meetings were conducted with staff at the facility level and coordinators to review and revise plans and timeframes. In addition to the regular monitoring visits, staff visits were conducted as a way to exchange experiences and lessons learned between localities and facilities. To monitor change in behaviour (including related to CF practices) as a result of the NIPP Circle initiative, a sample of mothers and families was selected and follow up monitoring was conducted at three months, six months and 12 months post discharge.

4.2 Reported outcomes

What were the reported outcomes of the interventions to improve the diets of young children?

There was a general sense that the outcomes of the interventions had been positive and that interventions to improve the diets of infants and young children were working well although there were no real evaluations conducted for most of the programmes except for the NIPP Circles. Most interviewees and stakeholders reported that outcomes were not yet known although perceptions based on observations indicated a change in practices of families. Plans were in place to measure outcome through the IYCF reporting database and individual evaluations.

Interviewees reported observing a change in food habits including more diversity in children's diets. Examples were given from Kassala specifically where children were observed eating foods that were not consumed before the intervention. Previously, fruits and vegetables were only given to animals, eggs were not given to children for fear that it would delay speech and fish was not consumed. As a result of the interventions, specifically the home gardens and awareness-raising, there was a perception that these customs were changing.

An evaluation of the NIPP Circle intervention was conducted in 2018 and it showed that this contributed to an improvement in mothers' knowledge related to CF and dietary diversity based on a baseline and endline survey (NIPP, 2019). The evaluation also showed that 100% of women participating in the circles had adopted the required four selected practices.

There was acknowledgement and evidence that exclusive breastfeeding rates had increased due to the MSGs which showed that community-based interventions could lead to change. Interviewees highlighted the increase in exclusive breastfeeding rates from 55% (MICS 2014) to 62% (S3MII 2018) and attributed this change to the creation and scale-up of MSGs. Interviewees did not report on a specific mechanism to capture success stories, however some have been reported in annual reports by UNICEF and WFP.

4.3 Key enablers and opportunities

What were the key enablers and opportunities for improving the diets of young children

Stakeholders also identified the enablers, opportunities and recommendations that had the potential to improve programming including 1) advocacy for improving the overall food security situation and prioritising CF interventions and polices, 2) emergency preparedness, and 3) the scale-up of CF interventions through an integrated multi-sector approach (**Table 6**).

Table 6 Enablers, opportunities and recommendations to improve CFE programming

Key enablers	Opportunities and recommendations
Food distributions targeting families with young children enable effective programming as counselling approaches cannot be effective if households are food insecure.	**Address food insecurity** including through direct food assistance. Improve households' access to food in addition to providing counselling around CF. Distribution should include non-food items for households with children under two years.
Emergency preparedness. Having a national IYCF-E Operational Guidance in place is key to emergency preparedness.	**Prepare for shocks** by pre-positioning supplies and allocating funds to ensure effective programme delivery when emergencies occur.
Localised interventions that increase knowledge and awareness of nutrition and CF contribute to improving dietary diversity (e.g., **Peer-to-peer and community support and SBCC) with potential for scale up**.	**Prioritise peer support** for mothers and fathers via community support groups and gatherings especially in areas where access is limited. **Provide comprehensive training** on CF to community nutrition volunteers and MSGs as part of the baby-friendly community initiative (BFCI) course to facilitate household level education and counselling. **Build capacity for delivering programming on CF**. Invest in capacity-building among implementing staff at facility and community-level, including developing a pre-service training curriculum. **Sensitise communities** on key messages through mass media (e.g., local radio) and text messages along with community-led campaigns to reach different cohorts of community members. **Ensure adaptation to COVID-19**. Continue delivery of IYCF and CF services in line with COVID-19 national guidelines. **Ensure access**. Advocate to gain better access to emergency-affected areas. **Implement SBCC campaigns around CF and nutrition**. Deliver strong SBCC messaging on optimal CF and the impacts of sub-optimal practices at all levels. Generate and promote evidence-based CF recipes and cooking skills within SBCC campaigns. Target fathers, mothers and community leaders with SBCC. **Scale successful interventions related to CF.** Scale up BFCI, MSGs, NIPP Circles, agricultural support and resilience approaches to reach vulnerable populations/regions. In regions with poor access to water for agriculture, consider income-generating activities.
Existing funding and support provide unique opportunities for supporting CF although still localised.	**Increase investment in CF interventions**. Increase investment in maternal and IYCF interventions including CF to improve programme delivery. Fundraise for CFE and include this in proposals for donors. Allocate funding for incentives for MSG leaders.
Monitoring and evaluation are critical to building the evidence around CFE interventions and contribute to increased funding.	Facilitate improving the quality of programme delivery by **improving monitoring and evaluation.** Strengthen reporting system through adopting the IYCF database (refer to section 4.1).
Strong coordination and joint planning for CFE interventions are key to maximise impact.	**Deliver CF interventions as part of integrated programming**. Use a multisector approach to deliver integrated programming targeting caregivers of children 6-23 months. Improve communication between the nutrition, food security, WASH and health sectors to have a greater impact.

Key learnings from Section 4

- **IYCF (including CF) indicators are monitored by the Federal Ministry of Health with support from UNICEF and other partners. Indicators on counselling and support groups are integrated within the National Nutrition Programme and are regularly collected.**

- **Although no evaluations have yet been conducted on the outcomes of existing interventions (namely mother support groups and behaviour change techniques), these have had a positive outcome on caregiver feeding behaviour.**

- **Key enablers and opportunities were identified by interviewees to address key challenges and bottlenecks including:**
  - **Addressing food insecurity through direct food assistance**
  - **Ensuring emergency preparedness through existing plans and provisions**
  - **Scaling up existing interventions: prioritise peer support by providing training on CF to community volunteers, sensitise communities on CF key messages, build capacity for delivery of programming on CF and implement SBCC campaigns**
  - **Increasing investments in CF interventions and building on existing opportunities**
  - **Strengthening reporting systems to provide evidence on the outcomes of interventions and increase funding**
  - **Delivering CF interventions as part of an integrated programming using the multi-sector approach**

Overall learnings

Based on the content presented in Sections 1 to 4, the main learnings that were identified as having helped Sudan to make progress towards improving the diets of young children were:

Having a package of contextualised CFE interventions enabled a response to context-specific needs.
Sudan is a country where the humanitarian response was implemented to respond to a complex emergency that was characterised by security challenges, lack of access to food and limited access to safe and clean water – all compounded by the COVID-19 pandemic. Such humanitarian situations worsened pre-existing inappropriate feeding practices and rendered supporting the nutritional needs of young children even more important. This case study has highlighted efforts where context-specific packages of interventions were jointly planned and suggested for different settings within the country to respond to changing characteristics (e.g., access) and needs (e.g., the food security situation). Although contextualised, these were also part of the wider IYCF material and IYCF national agenda.

An initial situation analysis examining the drivers of CF practices provided the necessary knowledge that guided the design of actions and interventions.
In order to respond to the nutritional needs of young children during the CF period, CFE programming efforts were founded on an initial situation analysis that provided knowledge related to feeding practices as well as their drivers and determinants. The analysis was an important step taken towards identifying actions and guiding programme planning. At the same time, given the ongoing changing situation, continuous and active appraisal of the situation was important and having emergency preparedness plans (such as the national IYCF-E Operational Guidance) in place with clear guidance on rapid assessment was crucial to ensure rapid and effective CFE response at the onset of an emergency and after.

Coordination, shared vision and joint/close planning amongst different sectors (systems) strengthened the outcomes of CFE programming.
The systems approach was illustrated by considerable coordination between sectors and with the government. The close collaboration and coordination between sectors including the representation of different sectors in IYCF, IYCF-E and CF working groups facilitated engagement and joint planning and contributed to maximising the impact and coverage for improving the diets of young children. The development of national guidance (the IYCF-E operational guidance, the NNP, the IYCF strategy etc.) contributed to maximising the effect of this collective effort and facilitated preparedness for emergencies. The shared vision also allowed a change in the narrative related to nutrition in emergencies, highlighting the importance of focusing on prevention and not on the treatment of wasting alone.

Undertaking specific and concrete activities and building the evidence on impact encourages uptake and scale-up.
The NIPP Circle initiative and the Kassala Dietary Diversity Project were both examples of localised initiatives with potential for scale-up that received traction as a result of their implementation. Having concrete activities with documented outcomes built the momentum for scale-up and encouraged buy-in by the government and other agencies, therefore maximising impact.

The Action Framework may be a useful tool that can be used to document, plan and implement CFE interventions ('how to').
Although not specifically mentioned as a tool that was used at the country level, the Action Framework was used for documenting interventions and actions to strengthen systems to improve the diets of young children which facilitated the documentation of CFE programming and provided an overall examination of the actions and interventions. It was useful as it helped to lay out the different components and identify potential opportunities at different levels and through various channels. It may be useful for other countries to consider using the Action Framework as a tool to plan and implement CFE programming and interventions. It is also an important tool to use during emergency preparedness.

Conclusion

This case study has documented the progress towards improving CFE programming by examining the approaches and interventions that aimed to improve the diets of young children in Sudan, an emergency context, using the UNICEF Action Framework (**Figure 2**). It has aimed to provide learning on the 'how to' of CFE programme planning and implementation which could be used by practitioners and global-level decision-makers to contribute to improving CFE programming in other contexts. It was undertaken to respond to gaps highlighted in the CFE review on the absence of examples of strong CFE responses.

In Sudan, in the context of a complex emergency, CFE interventions were adapted depending on access to the population and the onset of the emergency. These were jointly planned and coordinated between different sectors through the IYCF and IYCF-E groups that were led by the FMOH and based on a situation analysis that examined CF practices as well as drivers and barriers. The policy environment was conducive except for the implementation of the Code. CF interventions were implemented as part of the IYCF strategy and included a package of interventions implemented via the health, food, WASH and social protection systems which was monitored through the different sectors and within the NNP.

The study has provided a number of learnings that can help programmers and decision-makers to improve actions and interventions for improving the diets of young children during emergencies. It has shown that having a package of contextualised CFE interventions enables a response to context-specific needs and building the evidence on the impact of specific activities may encourage uptake and scale-up. Close collaboration, joint planning and coordination to improve young children's diets and supporting systems for sustainability contributes to strengthening CFE programming. Through conducting this case study, it has been found that the Action Framework may be a useful tool that can be used to document, plan and implement CFE interventions.

The learnings that emerged from Sudan and the use of the Action Framework can be adapted to other contexts and may provide insights towards the 'how-to' of CFE programming including how to leverage funding, establish effective coordination mechanisms, conduct situation analyses to inform the CFE response, plan and implement actions at different levels and through different systems and conduct optimal monitoring and evaluation.

Given the importance of supporting the nutrition of young children during the CF period in emergency settings, it is important to continue the learning related to CFE by examining different settings, including situations where CF is not prioritised and therefore not yet established.

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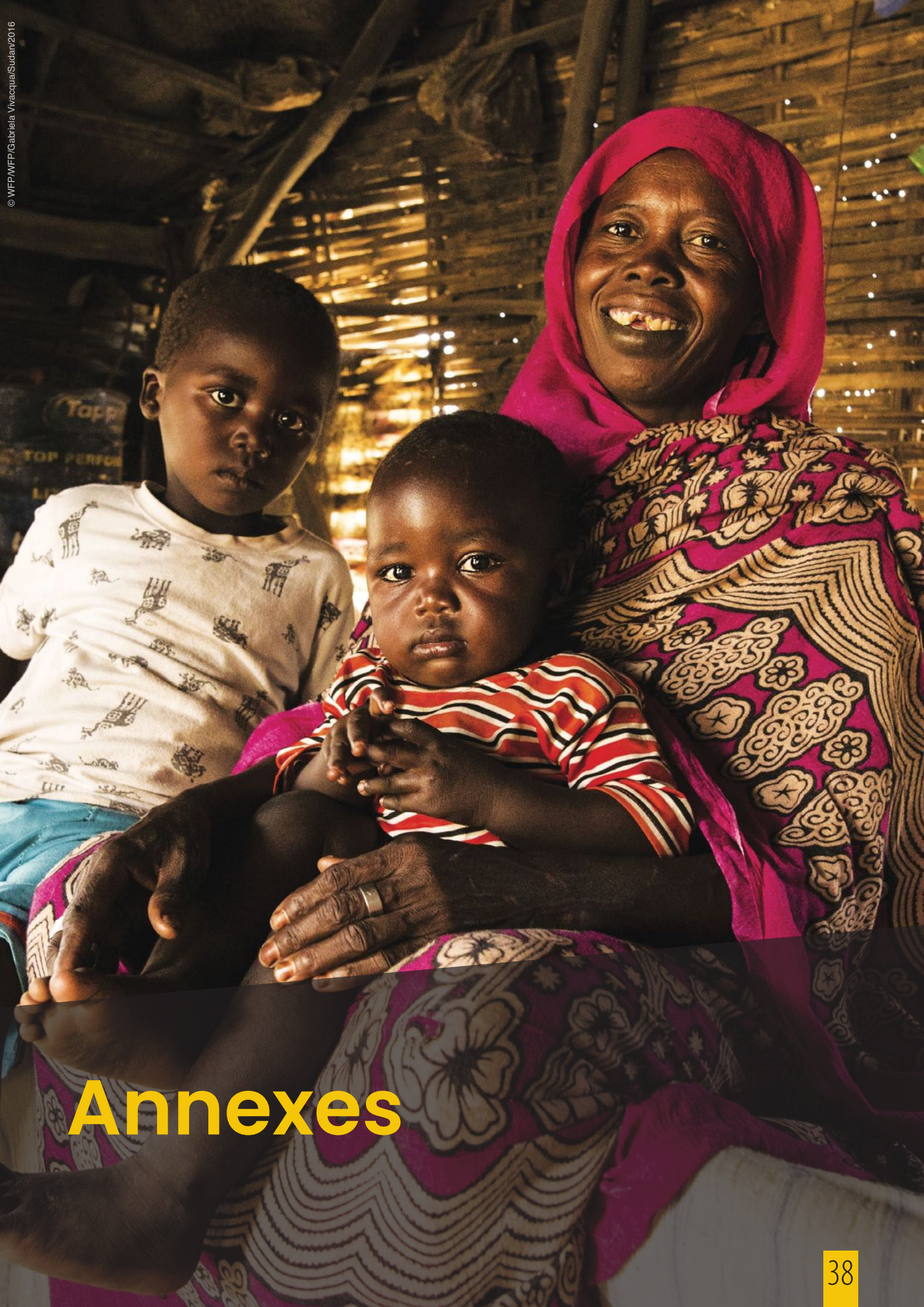

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Annexes

Annex 1
Summary table of findings

Section 1 Programming context (Humanitarian crisis, instability, food security, etc.)

What the UNICEF CF Programming Guidance suggests	How it was applied in Sudan
Programming context is defined as the setting in which the country programming is being implemented taking into account contextual features such as emergencies and food security. The Action Framework (and actions to improve the diets of young children) should be adapted and expanded according to the country context.	• Sudan presents a complex emergency context with multiple settings in which CF programming takes place including conflict, infectious disease outbreaks and drought, all of which negatively impact poverty and food security and influence programming. • CFE interventions are adapted to each context (localities with a relatively stable protracted situation, localities with possible access and localities with limited access) and priority is given to lifesaving interventions during acute emergencies. The tailoring of CF activities and interventions is elaborated in the newly developed Sudan infant and young child feeding in emergencies (IYCF-E) Operational Guidance.
Coordination should occur within and across sectors including strengthening multi-sector planning and clearly defining the roles of different actors.	• Strong coordination mechanisms for nutrition are in place. The government is leading on CFE interventions via the National Nutrition Programme and the Nutrition Sector as well as multiple IYCF-specific platforms (IYCF Technical Working Group, IYCF-E Taskforce and Technical Committee on CF) that support the planning and development of guidance on CF. • CFE programming does not happen as a standalone intervention. It is included within the wider maternal and IYCF agendas. • Across other sectors, the Nutrition Sector closely coordinates with water, sanitation and hygiene (WASH), social protection and food security and health. Joint planning for nutrition (including CF activities) was reported.
Understanding the policy environment and legal frameworks driving complementary feeding outcomes is a key action.	• The policy environment to support CFE in Sudan appears to be strong with various policies, strategies, plans and guidance present to govern IYCF and IYCF-E actions (except for the legislation of the International Code of Marketing of Breastmilk Substitutes (the Code) including CF. Main policy documents include a national IYCF strategy and the recently developed National Nutrition Policy and the IYCF-E Operational Guidance. Code legislation however remains a gap.

Section 2 Nutrition Situation Analysis: Drivers and determinants of young children's diets

What the UNICEF CF Programming Guidance suggests	How it was applied in Sudan
Conducting a situation analysis is important to design effective CF programmes including understanding the status of CF practices as well as examining the drivers of poor diets for young children.	• A situation analysis for CF programmes was conducted in Sudan to guide programming using existing household surveys reporting on feeding practices as well as qualitative data. The analysis showed that wasting and sub-optimal CF (namely low dietary diversity) practices among children 6-23 months are a major concern in Sudan. • CF practices are driven by a number of factors including education and wealth. Findings from the analysis have helped to guide IYCF actions including prioritising improving dietary diversity among young children. There is still, however, a need for updated data and analyses that reflect the current situation to guide and inform CFE interventions.
The situation analysis should also include an examination of existing barriers and bottlenecks that may negatively affect CF programming.	• Barriers and challenges related to CFE programming that were reported in Sudan included factors that both related to the context and those that related to the programming of the response including security risks, food insecurity, poverty, social norms, poor implementation of the Code and access to remote communities.

(Cont'd next page)

Section 3 Interventions and actions for improving young children's diets

What the UNICEF CF Programming Guidance suggests	How it was applied in Sudan
Key interventions for improving young children's diets are recommended based on available evidence. These are suggested to be implemented via different channels /systems including health, food, social protection and WASH and at multiple levels (policy, institutional and community/ household). The interventions include: • Nutrition counselling and social and behaviour change communication (SBCC) (delivered via health system) • Counselling and education on responsive feeding and stimulation (delivered via health system) • Use of vitamin and mineral supplements in settings where nutrient-poor diets prevail (delivered via health system) • Access to diverse and nutritious complementary foods at household level (delivered via food system) • Access to fortified foods as needed, aligned with global and national standards (delivered via food system) • Promote improved accessibility and use of safe complementary food, water and clean household environment (delivered via WASH system) • Access to affordable and nutritious foods through social protection programmes and counselling services	• Almost all the recommended interventions were reported to have been implemented in Sudan (either nationally or in some localities) except for responsive feeding which was not mentioned as a key intervention. Table 5 provides the list of interventions reported to be delivered in Sudan to improve young children's diets, the channel and the level of implementation. • Actions for improving the diets of young children in Sudan are implemented as part of a national IYCF strategy and go beyond the health sector and include access to food, social protection and WASH interventions. • Interventions include nutrition counselling and SBCC provided alone or in combination with other interventions depending on the area of intervention. For example, in areas where food security is high, counselling and SBCC are coupled with interventions to improve access to diverse and nutritious foods at the household level such as home gardening, the provision of fortified seeds and cooking demonstrations. Supplementary feeding is also provided for vulnerable families as well micronutrient powders. Cash assistance and food distribution are also provided to families in vulnerable areas, specifically for pregnant mothers until their child is 23 months of age. • The main channels of delivery of services are the health system (primary health centres) and the food system. Social protection systems are also used to target families who are most in need. WASH is integrated with IYCF interventions including hygiene awareness, access to potable water and sanitation.
A systems approach aims to leverage the potential of different systems for delivering nutrition results for young children. It includes joint planning and contributes to expanding opportunities to reach children and improve their diets in a more comprehensive and systematic way.	• System strengthening actions have been implemented in Sudan as a way to influence policy and strengthen capacity at the institutional level and community/household level: 1) Health system strengthening actions include influencing policy related to health and nutrition services, building the capacity of service providers on CF and implementing behaviour change interventions built on mother and father support groups that contribute to strengthening delivering at the community level. 2) Actions to strengthen the food system include close planning and the implementation of nutrition and food security activities, supporting policies related to food fortification, implementing supplementary feeding and supporting the food supply chain and behaviour of caregivers through cooking demonstrations and home gardening intervention. 3) Actions to strengthen social protection systems include the integration of nutrition vulnerability criteria into social protection interventions and supporting cash assistance for caregivers of young children. 4) WASH system strengthening actions include development of joint standard operating procedure (SOP) for the integration of IYCF, WASH and community-based management of acute malnutrition and ensuring access to water, hygiene and food safety awareness and sanitation to vulnerable groups and areas.

Section 4 Monitoring, evaluation, learning and reported outcomes

What the UNICEF CF Programming Guidance suggests	How it was applied in Sudan
Monitoring, evaluation and learning is critical to effective programme implementation and the achievement of programme objectives.	• IYCF (including CF) indicators are monitored by the Federal Ministry of Health with support from UNICEF and other partners. Indicators on counselling and support groups are integrated within the National Nutrition Programme and are regularly collected. • Although no evaluations have yet been conducted on the outcomes of existing interventions (namely mother support groups and behaviour change techniques), these have had a positive outcome on caregiver feeding behaviour. • Key enablers and opportunities were identified by interviewees to address key challenges and bottlenecks including: - Addressing food insecurity through direct food assistance - Ensuring emergency preparedness through existing plans and provisions - Scaling up existing interventions: prioritise peer support by providing training on CF to community volunteers, sensitise communities on CF key messages, build capacity for delivery of programming on CF and implement SBCC campaigns - Increasing investments in CF interventions and building on existing opportunities - Strengthening reporting systems to provide evidence on the outcomes of interventions and increase funding - Delivering CF interventions as part of an integrated programming using the multi-sector approach

Annex 2

List of policies, strategies and guidance related to complementary feeding in Sudan

Name of document	Status
National Nutrition Policy (2021)	Final
Sudan Infant and Young Child Feeding Strategy (2015-2025)	Final
Sudan Infant and Young Child Feeding in Emergencies (IYCF-E) Operational Guidance (2021)	Final
Infant and Young Child Feeding Multi-Sectoral Guidance (2021)	Final
Sudan National Operational Guidance on Infant and Young Child Feeding during the COVID-19 Pandemic (2020)	Final
Breast-milk Substitute regulation	Needs revision
Guidelines for CMAM in Sudan (2016)	Final
IYCF and COVID-19 Guidance (2021)	Final
Salt iodisation	In 13 out of 18 states
Legislating the International Code of Marketing of Breast-milk Substitutes	Drafted not approved
BMS prescription procedures	Final

Annex 3

IYCF-E activities and services based on setting and access

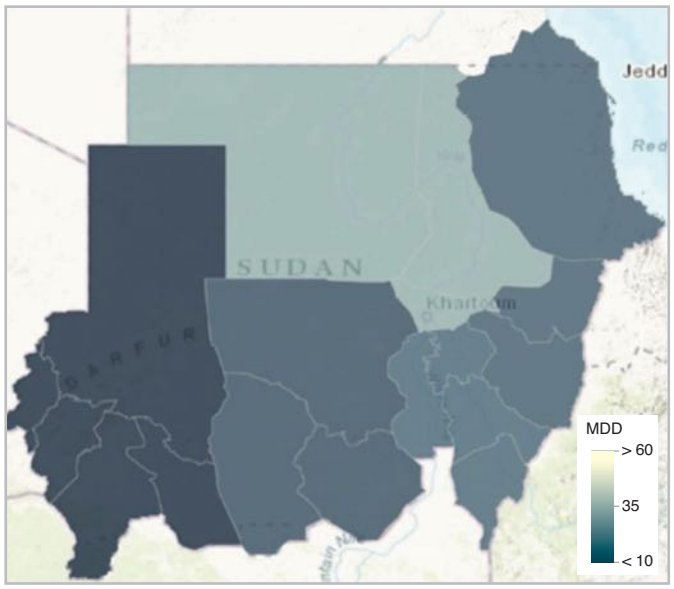
The table below is included in the IYCF-E Operational Guidance providing guidance on activities and services that can be implemented in different settings. For example, for IYCF message dissemination, the activity is implemented in all settings during all levels of access, whereas nutrition counselling is implemented only during full or limited access in OTP, stabilisation centres (SC), PHCs and hospitals and only during full access in camps and community.

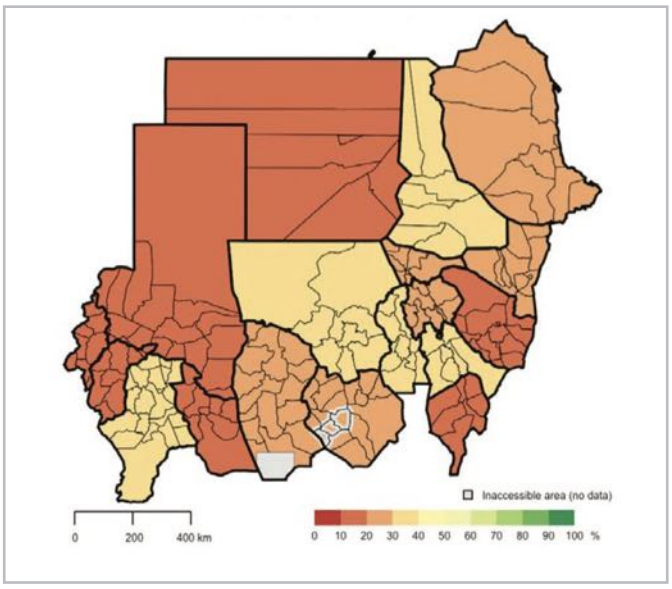
Activities and Services			Setting																		
Full Access	Limited Access	No Access	Community			Camps			OTP			SC			PHC			Hospital		
Nutrition screening and/or growth monitoring																					
IYCF/E message dissemination																					
Linkage with the CMAM programme																					
Rapid and full assessment of IYCF/E practices																					
Nutrition counselling of the pregnant and lactating mother																					
IYCF counselling																					
Mother Support Groups																					
Father Support Groups																					
Supportive spaces																					
Care groups																					
Implementation of the 10 steps for successful breastfeeding (BFHI)																					
Regulation of the marketing of BMS																					

(Source: Sudan IYCF-E Operational Guidance, 2021)

Annex 4

Minimum dietary diversity in Sudan





Percentage of children aged 6-23 months who achieve minimum dietary diversity in Sudan based on data from S3M II (2018) and MICS (2014)

Annex 5

Kassala Dietary Diversity Project

In Kassala, UNICEF supports the Kassala State Ministries of Health and Agriculture and partners to implement the Diet Diversity Project aimed at addressing low diet diversity amongst young children. The approach uses existing IYCF mother support groups.

Volunteer lead mothers having good communication skills and selected from the community receive a three-day standard training package[15] administered by lead trainers who have received a five-day training package. Each lead mother identifies 10-15 other pregnant women or mothers of children under two years of age in the community in collaboration with community leaders.

Lead mothers provide counselling and support to identified mothers by visiting them in the household two times per month to provide **six counselling** sessions per mother. Messages received during the training are conveyed at the household level and include nutrition during pregnancy, breastfeeding and CF. During the sessions, lead mothers provide guidance on **choosing a varied diet using available ingredients** to prepare a meal for young children, provide key messages on the recommendations for CF and provide counselling on specific issues that are identified during visits such as correcting misconceptions. In addition, the visit provides hands on cooking demonstrations where the family engages in recipe and meal development using available ingredients. During the visit and **cooking demonstration[16]**, guidance on the use of micronutrient powder supplements is also provided. An integral part of the mother and father support groups and household visits is to also provide guidance and support for the establishment of home gardens (see below on **home gardens** and provision of seeds).

Women in 55 communities/villages were able to produce nutritious foods. Around 550 mothers were able to establish home farms of whom 463 started harvesting their home-grown crops. The programme contributed to enhancing collaboration and coordination between different sectors including health, agriculture, WASH and education. Programmers have observed improvement in access to quality food and CF practices.

[15] The State of Kassala, Ministry of Health, Primary Health Directorate, National Nutrition Program. 2019. Training guide for IYCF support groups on dietary diversity and complementary feeding.

[16] In some cases/regions, it was noted that cooking demonstrations were also conducted in a central location such as the OTP or health facility.

Annex 6

Nutrition impact and positive practice (NIPP) circle initiative

The Nutrition Impact and Positive Practice (NIPP) Circle initiative implemented by GOAL is a multi-sector and grassroots approach developed to address the underlying behavioural determinants of malnutrition. The initiative targets families with moderately acutely malnourished children. Components of the initiative include:

- Formative research including a situation analysis, barrier analysis and positive deviance to help design a behaviour change framework.
- Establishment of circles where families are recruited and discharged as they pass through the behaviour change cycle which includes:
  - Practical sessions focused on identified causes of malnutrition
  - Micro-gardening
  - Participatory cooking demonstrations
  - Incorporated activities: handwashing education, provision of latrines and fuel-efficient stoves, education on food processing, preservation and storage techniques.

Program Cycle:

- Families are recruited for a circle (a period of three months) which consists of 24 sessions covering the above-mentioned activities. Dietary diversity cards are used in addition to other tools such as songs and drama.
- Criteria for discharge of family:
  - Pass an exam (specific questions are asked to the mother based on the practices that are identified as needing to be adopted)
  - Child MUAC is improved
  - Mother practices at least four identified behaviours (food preparation, handwashing, using latrines and micro-gardening)

Immediate outcomes that are expected to be reached at the household level:

- Household key members acquire integrated nutrition, health, WASH knowledge and skills
- Household uses recipes learned during cooking demonstrations
- Household establishes micro-gardens
- Household establishes additional NIPP circle features (tippy-tap, latrines, fuel-efficient stoves, food processing and storage techniques)

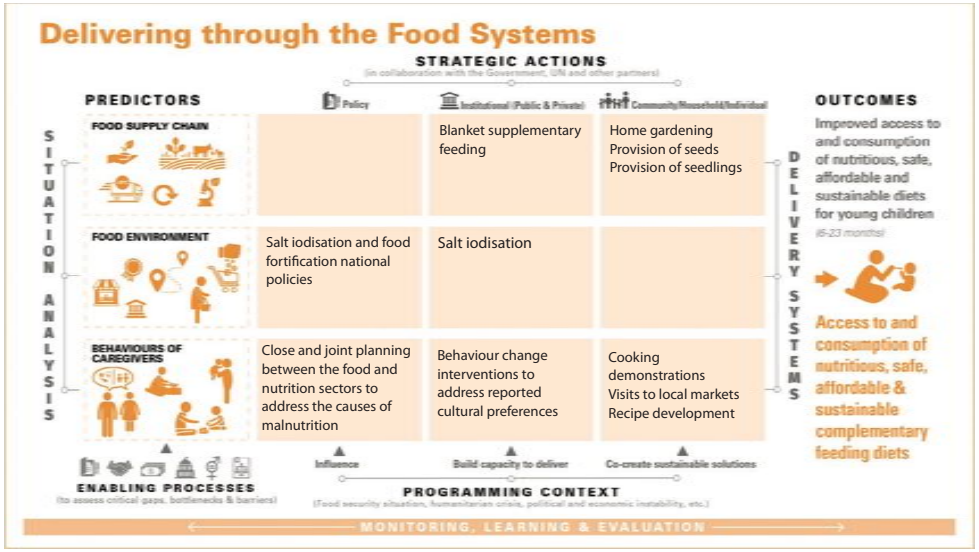
Intermediate outcomes:

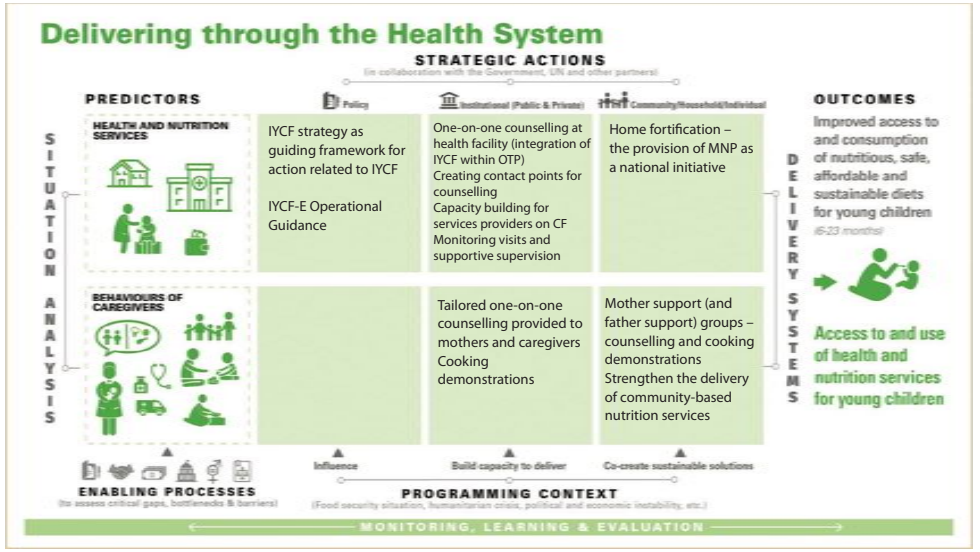
- Household improves IYCF and maternal nutrition, WASH, livelihood, health seeking behaviour and practices
- Household increases production of diverse and nutritious foods

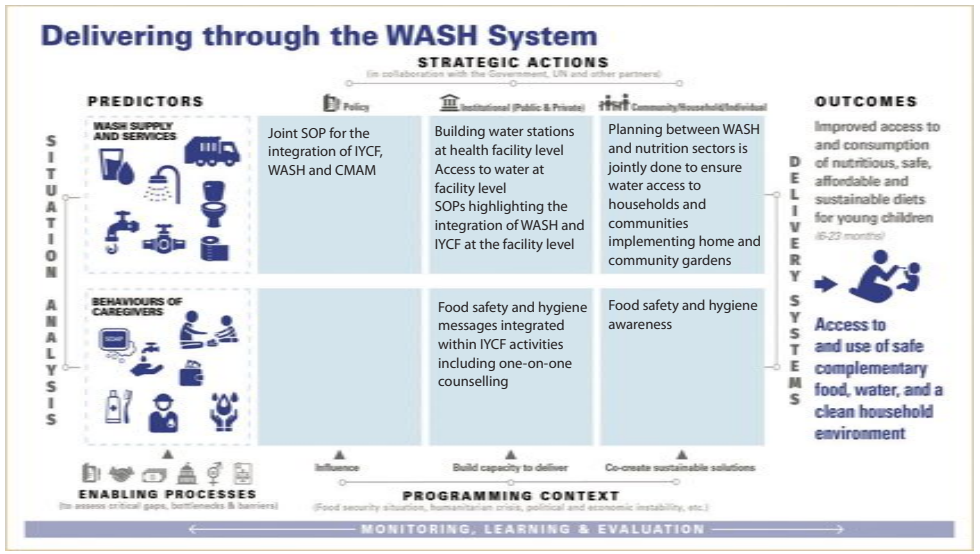
Annex 7

System Strengthening actions in Sudan

The figures below provide an illustration of actions to improve the diets of young children during the CF period delivered at different systems levels. Using the information collected through the case study, actions were identified and inserted into the relevant box indicating those addressing specific predictors of CF and influencing different levels (policy, institutional and community). The figures are intended to be illustrative of examples of actions as well as other potential activities and actions that may be considered where boxes are empty.







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