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GHANA

Rapid assessment of priority areas impacted by dry spell and district-level intervention priorities

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Acknowledgements

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The technical collaboration between FAO, the World Food Programme (WFP), the International Fund for Agricultural Development (IFAD), the International Water Management Institute (IWMI), and the United Nations Children's Fund (UNICEF) reflects a shared vision to ensure an evidencebased response to the impacts of the dry spell, notably through informed interventions that will safeguard livelihoods and strengthen food security in Ghana. Furthermore, this joint effort underscores collective commitment to leaving no one behind, particularly the most vulnerable farmers and communities affected by this crisis. It is hoped that the government, development partners, civil society organizations, and other national stakeholders will find the analysis helpful in guiding their interventions and supporting recovery efforts across Ghana.

Executive summary

Central and northern Ghana experienced an unusual and severe dry spell during a critical period of the growing season. Heavily reliant on rainfed agriculture, this was an unprecedented shock that is expected to especially impact smallholder farmers. The situation is exacerbated by the fact that these regions have limited access to irrigation, and therefore have reduced means to mitigate environmental changes. The dry spell not only threatened food production, but also put pressure on the country's food systems, potentially leading to higher food prices and increased demand for relief support from the most affected farmers.

A rapid field assessment was necessary to triangulate the findings of both the geospatial and crop damage and loss analyses with field realities, and to inform programming decisions and actions among agriculture development partners in the country.

OBJECTIVES

The specific objectives of the rapid assessment were to:

- improve understanding of community-level impacts of the dry spell in regions and districts informed by geospatial analysis and prioritized by the Ministry of Food and Agriculture (MoFA);
- provide initial indications to agriculture development partners on intervention priorities;
- support government and agriculture development partner decision-making on the attribution of resources for short-, medium-, and long-term programming; and
- reinforce MoFA's capacity to undertake ground-truthing activities in future disasters.

Prior to the field work, a rapid geospatial assessment was conducted, which informed the selection of the following areas where to conduct the field assessment: Ahafo, Bono, Bono East, Northern, Northern East, Oti, Savannah, Upper East, and Upper West. A total of 239 focus group discussions were conducted across 28 districts in the nine target regions. A total of 22 key informant interviews were interviewed, across the nine selected regions, with either community leaders, local government officers and/or extension officers. Interviews were conducted with 69 agricultural input traders, and 96 food market vendors.

RESULTS

The results of the rapid assessment provide a comprehensive overview of the key impacts of the recent dry spell on livelihoods, agriculture, water, food security and market dynamics across affected communities. Key findings include the following:

Livelihood and shock

Ninety-two percent of the communities have experienced a shock in the last three months and for 89 percent of them, the main shock was the dry spell.

Crops

Land cultivated with maize, groundnut and rice crops were affected by the dry spell: 73 percent of respondents reported that a majority of the cultivated area (over 75 percent) was impacted;

- 41 percent of communities reported that the main perennial crop was affected;
- 83 percent of the communities across most regions faced difficulties accessing seeds this season.

Livestock

Livestock mortality was reported by 75 percent of the communities, due to increase of illness, lack of feed, lack of access to water. Small ruminants were highly affected.

Water

There were changes in water quality perceived by the communities as result of the dry spell and 80 percent of them noticed a reduction in water levels for the main source of water.

Food security and nutrition

About 95 percent of the communities faced difficulties accessing food due to price increases, weak financial capacities, low seasonal production, earlier than normal depletion of food stocks by households, and the exhaustion of means for purchasing adequate food by a portion of the communities. A third lost all means of purchasing food.

Coping strategies

Approximately 80 percent of the communities are utilizing unusual coping strategies for the current season due to dry spell impacts.

Food market

Food markets experienced a 67 percent decrease in customers and noted significant price increases among key food commodities.

Agricultural inputs

Traders of agricultural inputs indicated lower demand for inputs from farmers owing to reduced usage of inputs, and reduced purchasing power due to decreased income.

RECOMMENDATIONS

Based on the assessment findings, recommendations were grouped into three key areas: basic needs, livelihood support and resilience-building interventions, aimed at addressing both immediate and long-term impacts.

Basic needs

- **Cash** was the most prominent need specified by the communities. Considering the need for agricultural inputs that has also been raised by the communities, cash+ could be considered.
- The need for **food assistance** was raised by 43 percent of the communities interviewed. food assistance through appropriate channels (in-kind, cash or voucher) should be prioritized depending on the suitability of the response option(s) to the prevailing local context dynamics of affected communities, districts and regions (markets, traders, financial services, etc.).
- The implementation of **food voucher programmes** play a crucial role in enhancing food security by providing targeted households with access to essential goods while supporting local markets.

Livelihood support

- The dry spell has caused widespread loss of pastures and fodder, and led to livestock deaths. To reduce extreme vulnerability and increase adaptive capacity among livestock owners, there is a need to put in place proactive drought risk management strategies (such as **supplemental feeding**), livestock management strategies (i.e. support with selling/destocking), and **vaccination campaigns** to protect the health of weakened animals.
- Provision of **fertilizers** for crop or vegetable production during the dry season to enable farmers take advantage of this season to increase food availability and income.
- Provision of **seeds** should focus on early maturing, short-duration and drought-tolerant varieties.

Resilience building

- Government, United Nations, international resource partners, international and local nongovernmental organizations and community-based organizations must prioritize development of **irrigation facilities** for crop and/or vegetable production that would be functional for use in the 2025 summer planting season.
- Over the longer term, the performance of the formal and informal **seed system** needs to be strengthened.
- **Community-based seed multiplication interventions** for farmers in their local communities should be scaled up.
- Increase **training and demonstration interventions** on good agronomic practices to increase farmers' crop yields, and on climate-smart approaches to mitigate climate risks, such as water conservation practices and techniques involving mulching, drip and pipe irrigation system adoption.

Introduction

Agriculture plays a vital role in Ghana's economy, contributing significantly to the country's gross domestic product (GDP). The sector employs almost half of the workforce and serves as a critical source of livelihood for millions of Ghanaians, particularly in rural areas (ACG, 2023). Key agricultural products such as cocoa, maize and yams are not only staples in local diets, but also important export commodities. Cocoa, for instance, is a major foreign exchange earner, placing Ghana among the top cocoa producers globally. The sector's contribution to GDP is also supported by the government's initiatives aimed at boosting productivity, improving access to markets, and enhancing value addition through agroprocessing. However, the full potential of agriculture in Ghana is yet to be realized due to several challenges, particularly those related to climate and water management.

The reliance on rainfed agriculture presents significant challenges to Ghana's agricultural sector, especially given the increasing unpredictability of climate patterns. While rainfed systems dominate much of the agricultural landscape, their vulnerability to erratic rainfall and prolonged dry spells can severely affect crop yields and food security, particularly in the Northern, Upper East and Upper West regions.

In response, the government has recognized the importance of expanding irrigation opportunities to enhance agricultural resilience. Efforts have been made to develop and rehabilitate irrigation infrastructure in regions such as Ashanti, Greater Accra and Volta, aiming to provide more stable water access for farmers. However, there is still room for improvement in optimizing these systems to ensure they reach their full potential. Continued investment and capacity building in irrigation management will be crucial in mitigating the impacts of climate variability and supporting the livelihoods of farmers across the country.

From early July to mid-August, Ghana experienced an unusual dry spell across most of the central and northern parts of the country. Starting in early August, rainfall amounts increased in the northern parts of the country, with above-normal rainfall compared to the long-term average.

The months of July and August correspond to the growing period for Ghana's main crops, such as maize, rice, cassava, millet and sorghum. This is also the sowing period for the minor season, maize, north rice, millet and sorghum (Figure 1).

FIGURE 1. Ghana agricultural calendar

Source: FAO. 2024. *GIEWS Country Briefs: Ghana. In: FAO, 02 September 2024.* Rome. [Cited 16 October 2024]. https://www.fao.org/giews/countrybrief/country.jsp?code=GHA

The most severely affected regions in terms of crop area impacted by severe dry spell during the agricultural season are Bobo East, Bono, Northern, Northern East, Oti, Savannah, Upper West and Western North (FAO, 2024).

This unprecedented shock is expected to impact in particular smallholder farmers who rely on rainfed agriculture, leaving them particularly vulnerable. The situation is exacerbated by the fact that these regions have limited access to irrigation, making it difficult to mitigate the effects of dry spells.

The prolonged dry spell not only threatened food production, but also put pressure on the country's food systems, potentially leading to higher food prices and increased demand for relief support from the most affected farmers.

According to the latest Cadre Harmonisé analysis conducted in March 2024, an estimated 1.1 million Ghanaians faced food insecurity between June and August 2024 (CH, 2024). This represents one of the highest projections for food insecurity in the country's history, following 1.37 million people estimated to be food insecure during the same period in 2023, the highest figure recorded since the inception of Cadre Harmonisé analysis in Ghana (CH, 2024).

Based on the outcome of the geospatial analysis that informed the prioritization of districts for the field-based data collection activity, as well as the crop damage and loss analysis conducted by Ghana's Ministry of Food and Agriculture (MoFA), a rapid field assessment was necessary to triangulate the findings of both analyses with field realities, and to inform programming decisions and actions among agriculture development partners in the country (FAO, 2024).

Given the level of vulnerability of the communities affected by the dry spell, the Government of Ghana, through MoFA and the Ministry of Finance, sought support from agriculture development partners and the United Nations to conduct a rapid assessment of the most impacted areas.

Objectives

The rapid field assessment had the following objectives:

- improve the understanding of community-level impacts of the dry spell in regions and districts informed by the geospatial analysis and prioritized by MoFA;
- provide initial indications to agriculture development partners on intervention priorities;
- support government and agriculture development partners decision-making on the attribution of resources for short-, medium-, and long-term programming; and
- reinforce MoFA's capacity to undertake ground-truthing activities in future disasters.

Methodology

A qualitative approach was employed for the field assessment, which included: focus group discussions with communities, key informant interviews with community leaders, local government officers and extension officers, together with traders (agricultural inputs and food). This allowed for the capturing of impacts and needs in relation to the dry spell at community level, and from a district and regional perspective.

Data collection was conducted between 26 and 28 August 2024 by trained enumerators sourced by Ghana's MoFA and the National Disaster Management Organization of Ghana.

A rapid geospatial assessment was conducted prior to the field work, which informed the selection of the areas where to conduct the field assessment. The selection of the areas where to conduct the assessment was the result of the combination of hazard and exposure to the dry spell, based on vegetation stress to crops, as quantified by the Agricultural Stress Index, with the level of vulnerability derived from a food security hotspot analysis.

The study was conducted across the following regions: Ahafo, Bono, Bono East, Northern, Northern East, Oti, Savannah, Upper East and Upper West. A detailed list of the districts where the data collection was performed is included in Annex I.

The focus group discussions were conducted across 28 districts in the nine target regions. In each district, an average of four communities were interviewed. Both men and women were interviewed, in separate groups. This yielded a total of 239 focus group discussions.

A total of 22 key informant interviews were conducted at regional level, across the nine selected regions, with either community leaders, local government officers and/or extension officers.

Interviews were conducted with 69 agricultural input traders operating in the main market of each district's capital, 47 of which were seed traders (68 percent), 59 of which were fertilizer traders (86 percent), and 42 of which were chemical/pesticide traders (61 percent). Some 96 food market vendors were interviewed across ten districts and nine regions of Ghana.

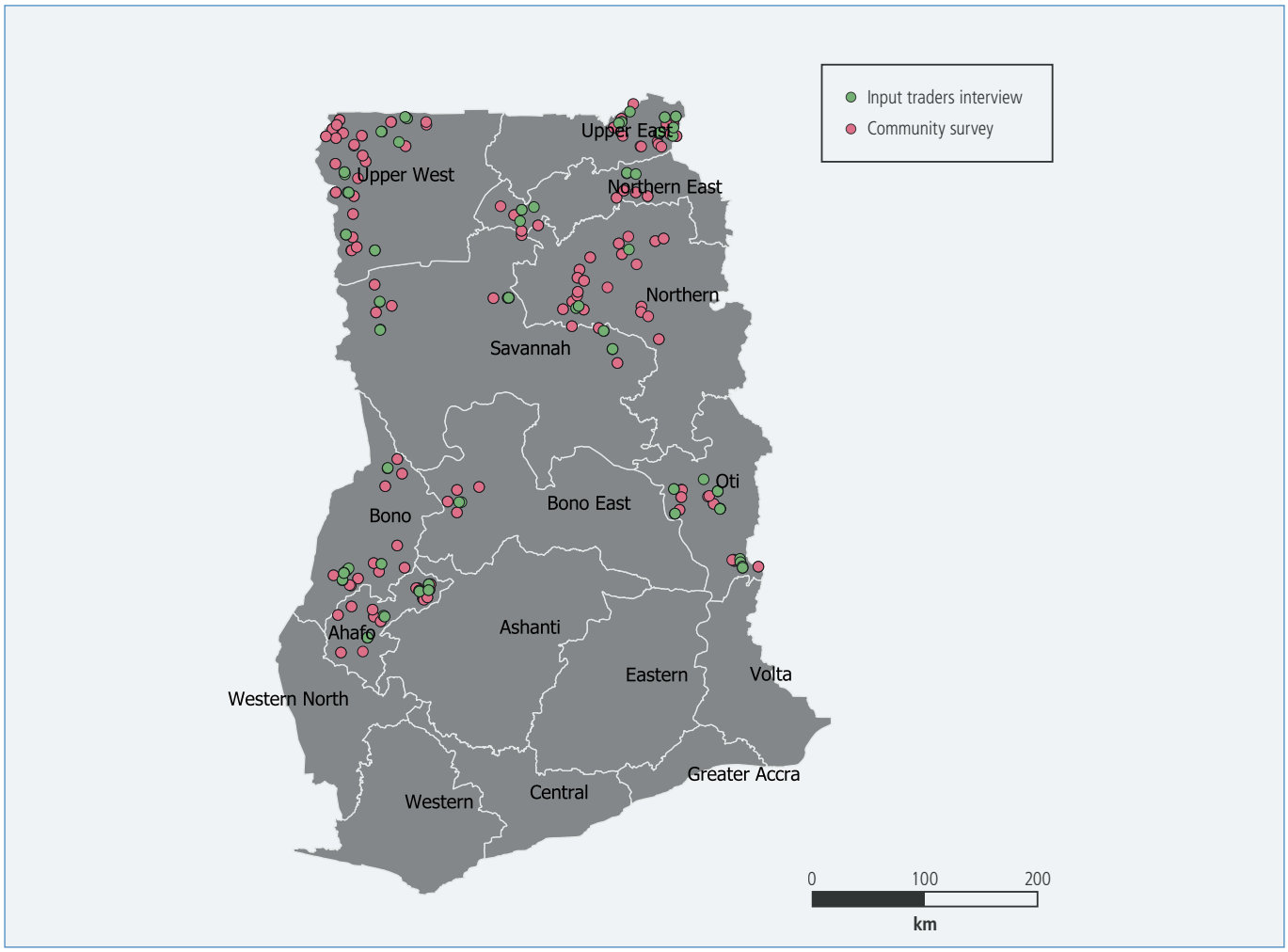
Results

The nine target regions included in this assessment are predominantly rural and account for approximately 31 percent of the country's total population (GSS, 2024). Even before the onset of the recent dry spell, the assessment revealed that a significant proportion of the population in these areas was already experiencing food insecurity. In regions such as Upper East, North East, Northern and Savannah, the percentage of the population facing food insecurity was notably high, estimated at 49 percent, 33 percent, 31 percent, and 23 percent, respectively (FAO, 2024). The results from the geospatial assessment can be accessed through a StoryMap (FAO, 2024).

Agriculture is the predominant livelihood activity in the communities interviewed. In Northern, Northern East and Upper East regions, nearly all communities are heavily engaged in agriculture, with 98 percent of communities in Northern and 100 percent in Northern East and Upper East primarily involved in farming. Similarly, substantial agricultural engagement was observed in Bono, Savannah and Upper West regions, where over 87 percent of communities actively participate in farming. Ahafo also shows significant agricultural involvement, with over 96 percent of its communities engaged in farming activities to a major or massive extent.

Livestock production, while also important, shows more variation in community involvement. In Upper East and Northern East, a large proportion of communities are heavily engaged in livestock activities, with 71 percent and 44 percent massively involved, respectively. Northern region also shows significant engagement, with 65 percent of communities participating in livestock production, including 38 percent to a major extent. In contrast, 88 percent of communities in Bono East are only minimally involved in livestock. Regions like Ahafo, Bono and Oti exhibit a more balanced distribution of involvement across communities.

FIGURE 2. Locations of interviews with communities and input traders across target regions



Note: Refer to the disclaimer on page ii for the names and boundaries used in this map.
Source of data: FAO, WFP, IFAD, IWMI and UNICEF. 2024. Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities. Rome.
Source of map: Map generated using QGIS. QGIS Geographic Information System. Open Source Geospatial Foundation Project. http://qgis.org.

LIVELIHOODS AND SHOCKS

A majority of households (92 percent) in the communities interviewed have experienced a shock affecting their ability to earn income and/or to produce food for their own consumption in the last three months.

A vast majority of the households in the communities interviewed (89 percent) mentioned that the most important shock was drought/dry spell. The second most important shock mentioned was crop pest outbreaks (32 percent). The third most important shock mentioned was unusually high food prices (21 percent). From the perspective of the key informants, drought was the foremost among the top three most frequent hazards affecting the communities (51 percent).

Compared to other events that have occurred in the community in the past five years, the communities commented that the dry spell was very severe and very prolonged and something communities have never experienced before. Communities noted that the dry spell prevented the completion of the cropping cycle and has affected performance of several crops, as well as prevented the production of seeds. Communities indicated that the dry spell affected investments, and caused a decrease in income for several households and a reduction in the quality and quantity of food available.

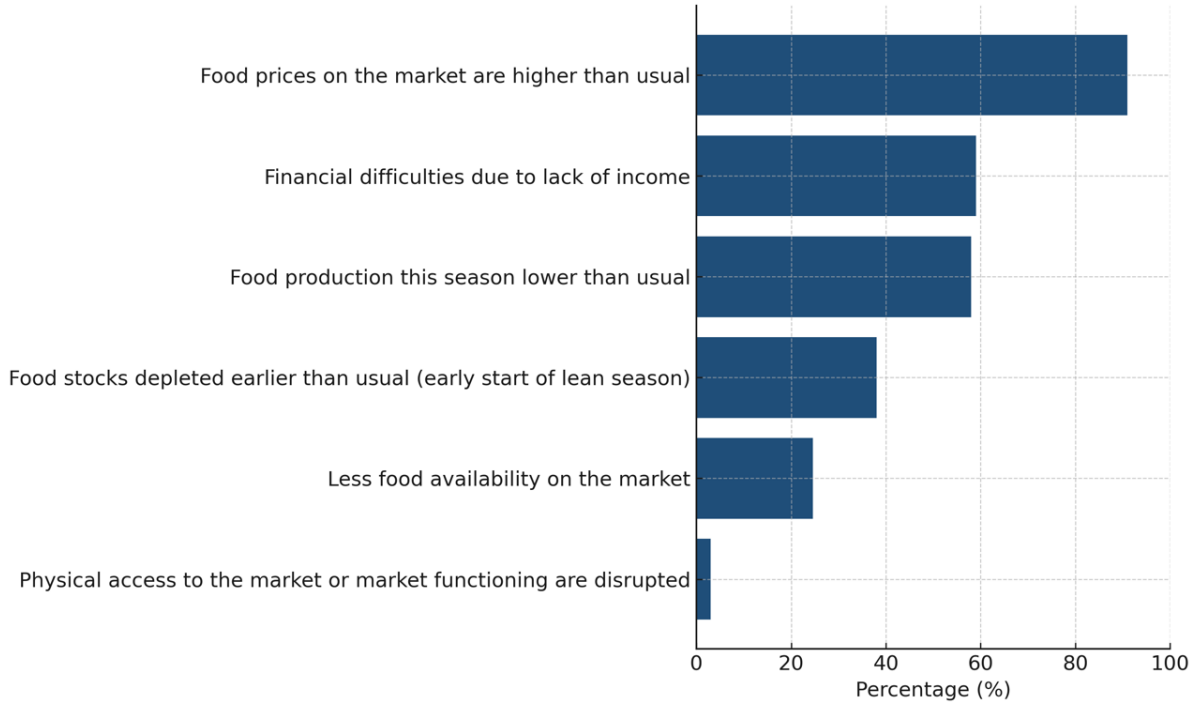
The perception of the communities was corroborated by the key informants, who mentioned that lower than usual crop production is expected at the end of the seasonal harvest, owing to the long period of the dry spell, poor access to farm inputs, crop pest outbreaks and crop diseases, shortage and high prices of seeds in the current season, and poor vegetative growth of crops.

FOOD SECURITY AND NUTRITION

About 95 percent of the communities interviewed mentioned that the people in their community face more difficulties than usual to access food at this time of year.

The main issues being faced with regard to food access are: higher food prices at market than usual (91 percent), financial difficulties due to lack of income (59 percent) and lower food production than usual this season (58 percent). In addition, 38 percent of the communities indicated food stocks were depleted earlier than usual, 25 percent mentioned less food availability at market, and 11 percent noted financial difficulties due to higher expenditures. Some heterogeneity was found among the different regions with respect to the issues communities are facing in accessing food; for example,

FIGURE 3. Percentage of communities that declared difficulties in accessing food



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

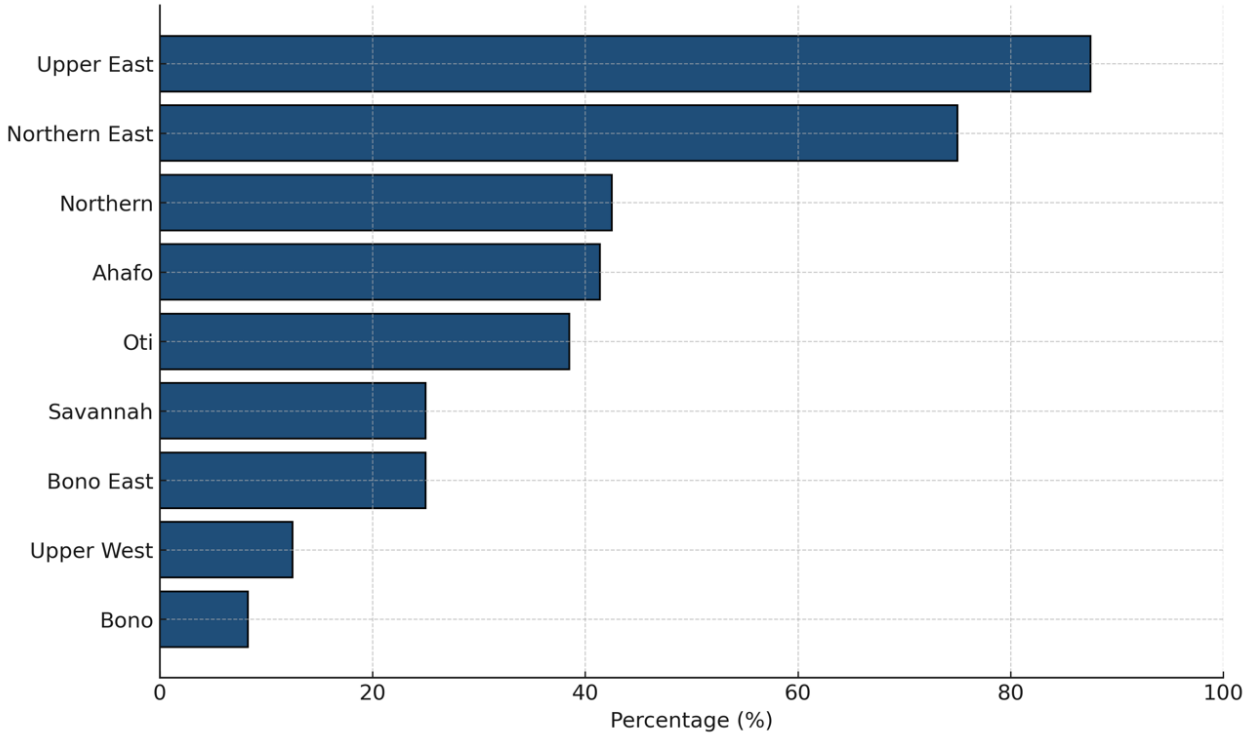
depleted food stocks was more prominent in Savannah and Upper East, financial difficulties were more prominent in Northen and Northen East, and lower than usual food production was experienced more by communities in Ahafo, Bono East, and Savannah.

Some 41 percent of the communities interviewed mentioned that over 75 percent of households lost all means of purchasing adequate food for their families; this applies particularly to Northern, Northern East, Savannah and Upper West. One-fifth of communities interviewed believed most households (50 to 75 percent) had lost all means to purchase food. A majority of the communities in Bono East noted that only 35 to 50 percent of households had lost all means to purchase adequate food for their families. Communities in Ahafo and Bono seem to be better off (up to 25 percent unable to purchase sufficient food).

Women/caregivers were requested to provide insights into caregiving practices, food availability and dietary challenges, essential to identifying immediate nutritional needs and inform targeted interventions. Overall, 33 percent of the communities believed there has been an increase in diarrhoea in young children within the last month. This percentage increased up to 50 percent in Upper East and Northern East. Overall, 37 percent of the communities declared that there were malnourished children in the community. This percentage increased to 86 percent in Upper East and to 75 percent in Northern East (Figure 4).

Before the dry spell, a majority of the communities (86 percent) were feeding children about three to four times a day. Since the dry spell, the number of communities feeding children three to four times a day dropped to 38 percent.

FIGURE 4. Percentage of communities declaring presence of malnourished children by region



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

CROPS

The data shows that maize is the crop most impacted by the dry spell, with 99 percent of the surveyed communities reporting it as affected. Other staple crops, such as rice (52 percent), groundnuts (69 percent) and cassava (36 percent), also show substantial vulnerability, particularly in regions like Northern, Northern East and Upper West, where these crops are critical for both food security and income generation. Figure 5 highlights the primary crops reported by the communities as being significantly affected by the recent dry spell.

Communities in regions heavily reliant on sorghum and millet indicated these crops as being affected (50 percent in Northern East and 80 percent in Upper East). This is particularly concerning given that these regions were already experiencing high levels of food insecurity.

Communities indicated that cash crops such as soybeans, particularly in Northern and Northern East, and vegetables like okra and onions in Oti and Ahafo regions, have been severely impacted. This not only affects food availability, but also threatens the livelihoods of farmers who depend on these crops for income.

The dry spell affected the total area cultivated. Several communities indicated that the damage was severe, with more than three-quarters reporting that over 75 percent of their cultivated land was significantly affected.

Communities in Northern and Northern East regions indicated that the impact was particularly pronounced, with 78 percent 88 percent, respectively, indicating that a massive or total part of their agricultural land had been affected.

In Bono East and Oti, 50 percent of the communities reported that their cultivated land had been affected in massive or total part. In Ahafo and Bono, while the extent of damage is slightly lower, it remains significant, with approximately 41 percent of communities reporting that over 75 percent of their cultivated land had been severely impacted.

This widespread damage across multiple regions underscores the critical need for targeted interventions to support recovery efforts and ensure the resilience of these agricultural communities.

The impact of a dry spell on crops can vary significantly depending on the stage of crop development. Different stages of growth have varying levels of sensitivity to water stress, with certain phases being more critical for the final yield and quality of the crop.

A majority of the communities (59 percent) reported that crops were at the vegetative stage when the dry spell occurred. The vegetative stage is crucial for the establishment of the plant's root system, leaf area and overall biomass. Water stress during this stage can severely affect the plant's ability to photosynthesize effectively, leading to stunted growth and reduced capacity to support subsequent stages of development, such as flowering and fruiting.

It was reported that 18 percent of crops were at flowering stage, one of the most sensitive periods in a crop's lifecycle. A dry spell during flowering can lead to poor pollination, reduced seed set, and ultimately lower yields. This is particularly detrimental for crops like cereals and legumes.

Overall, these findings suggest that the timing of the dry spell had the potential to severely impact the majority of crops, particularly those in the vegetative and flowering stages which are critical for establishing a healthy crop and ensuring a good yield. The situation reported by communities highlights the potential for significant agricultural losses and underscores the importance of timely interventions to mitigate the effects.

Key informants foresee that there should be a window for replanting, especially for districts in the south of the country. However, it was suggested that for replanted crops to thrive through the remaining period of the season, availability and accessibility to early-maturing, shortduration and drought-tolerant crop seeds should be granted, together with access to fertilizers for faster crop growth, access to machinery for land cultivation activities, and irrigation support.

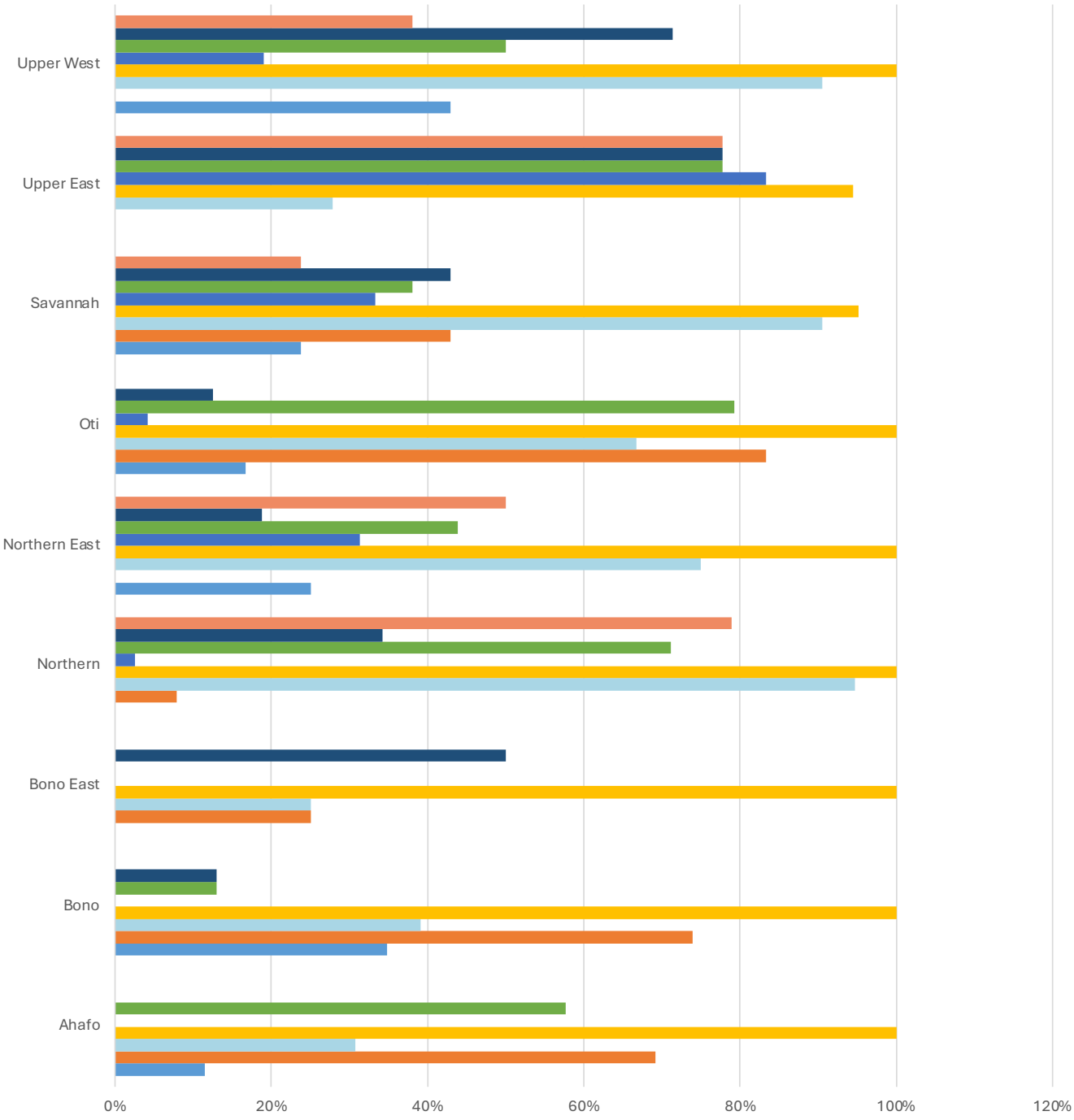
The majority of communities across the surveyed regions rely on their own production and local markets or agricultural input shops as their primary sources of seeds, with 98 percent and 96 percent of farmers, respectively, depending on these sources. In regions like Bono East, Northern East and Savannah, 100 percent of farmers reported using their own production and local markets for seeds, emphasizing the critical role of these sources in sustaining agricultural activities.

Private seed companies also play a key role, particularly in regions like Upper West (42 percent) and Northern (15 percent), where a notable percentage of farmers depend on such companies for their seed supply.

During the current season, a significant proportion of communities (83 percent) across the surveyed regions reported facing difficulties in accessing seeds. The challenges were particularly acute in regions such as Upper East (100 percent), Northern East (94 percent) and Savannah (96 percent), where nearly all farmers encountered obstacles in securing seeds.

These difficulties could stem from several factors, including supply chain disruptions, increased demand, or financial constraints faced by farmers, particularly in regions already struggling with food insecurity and the effects of dry spells.

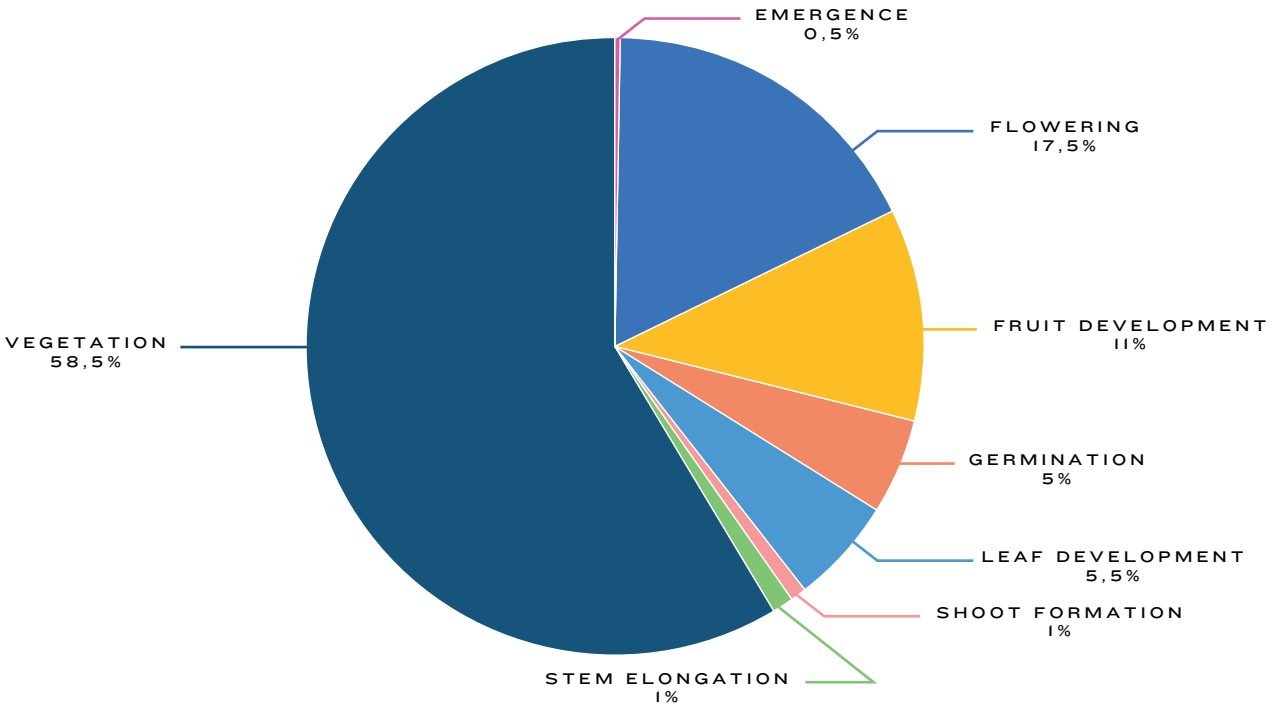
FIGURE 5. Percentage of communities reporting crops affected by dry spell across regions



	Ahafo	Bono	Bono East	Northern	Northern East	Oti	Savannah	Upper East	Upper West
Soybean	0%	0%	0%	79%	50%	0%	24%	78%	38%
Sorghum	0%	13%	50%	34%	19%	13%	43%	78%	71%
Rice	58%	13%	0%	71%	44%	79%	38%	78%	50%
Millet	0%	0%	0%	3%	31%	4%	33%	83%	19%
Maize	100%	100%	100%	100%	100%	100%	95%	94%	100%
Groundnuts	31%	39%	25%	95%	75%	67%	91%	28%	91%
Cassava	69%	74%	25%	8%	0%	83%	43%	0%	0%
Beans	12%	35%	0%	0%	25%	17%	24%	0%	43%

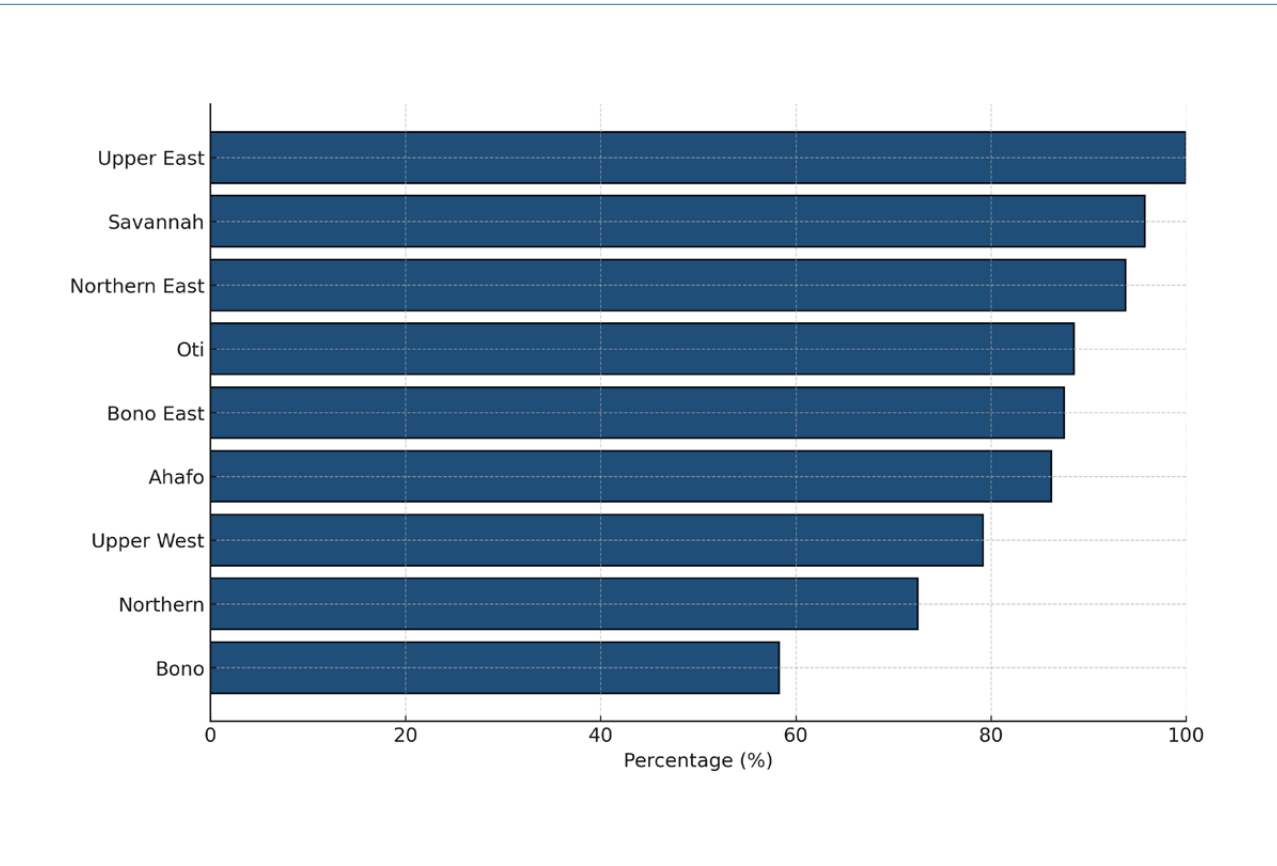
Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 6. Crop development stages at the time of the dry spell impact as reported by communities (percentage)



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 7. Percentage of communities reporting difficulties in accessing seeds during the current season



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Perennial crops

About 69 percent of the communities across the surveyed regions is involved in the cultivation of perennial crops. The most commonly grown perennial crops are cashew nuts, reported as the main perennial crop by 47 percent of the sampled communities. This crop is especially dominant in regions such as Bono, Bono East and Savannah.

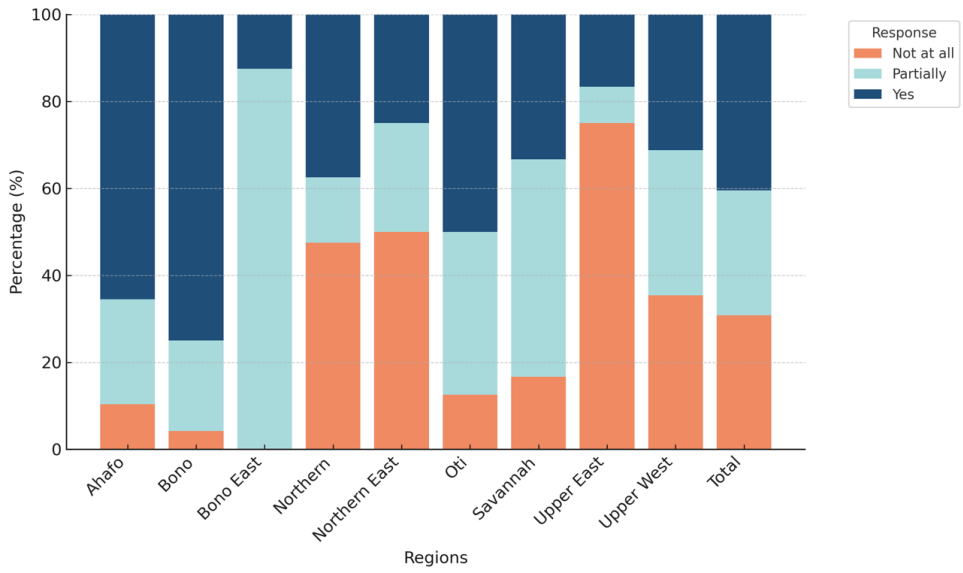
About 41 percent of communities reported that their perennial crops were significantly affected by adverse conditions, while about 29 percent reported partial impact. Regions such as Bono (75 percent of communities), Ahafo (66 percent), and Oti (50 percent) have seen a substantial proportion of their perennial crops heavily impacted.

LIVESTOCK

The communities interviewed indicated that the dry spell has severely impacted livestock. Small ruminants, cattle and poultry were the most affected, with 93 percent, 66 percent and 66 percent of communities, respectively, reporting significant impacts on these three livestock categories. Regions like Northern, Northern East and Upper East experienced the highest levels of distress, with many communities reporting widespread livestock deaths.

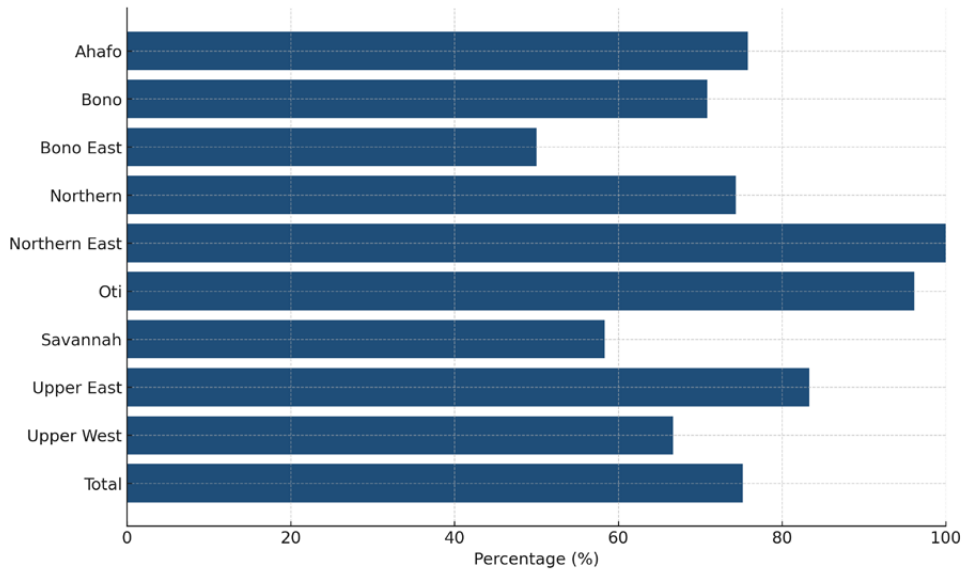
High livestock mortality rates were reported by the communities, with an average of 75 percent among them declaring to have lost

FIGURE 8. Percentage of communities reporting perennial crops affected by the dry spell



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 9. Percentage of communities reporting animal deaths as a result of the dry spell



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

some animals. Northern East and Oti regions were the most severely affected, with 100 percent and 96 percent of communities, respectively, reporting that some of their animals had died. These losses not only represent a direct economic blow to the farmers, but also threaten the long-term viability of their farming operations.

Milk and eggs production

Communities were asked about their experiences with changes in livestock products since the dry spell.

In terms of milk production from surviving cattle, 30 percent of communities reported a significant decrease (25 to 50 percent lower than usual), and 15 percent reported an extreme decrease (50 to 75 percent lower than usual). Northern region experienced some of the most severe impacts, with 23 percent of communities reporting an extreme decrease in milk production and 44 percent noting a significant decrease. In Northern East region, one-third of communities reported an extreme decrease, and 40 percent noted a significant decline.

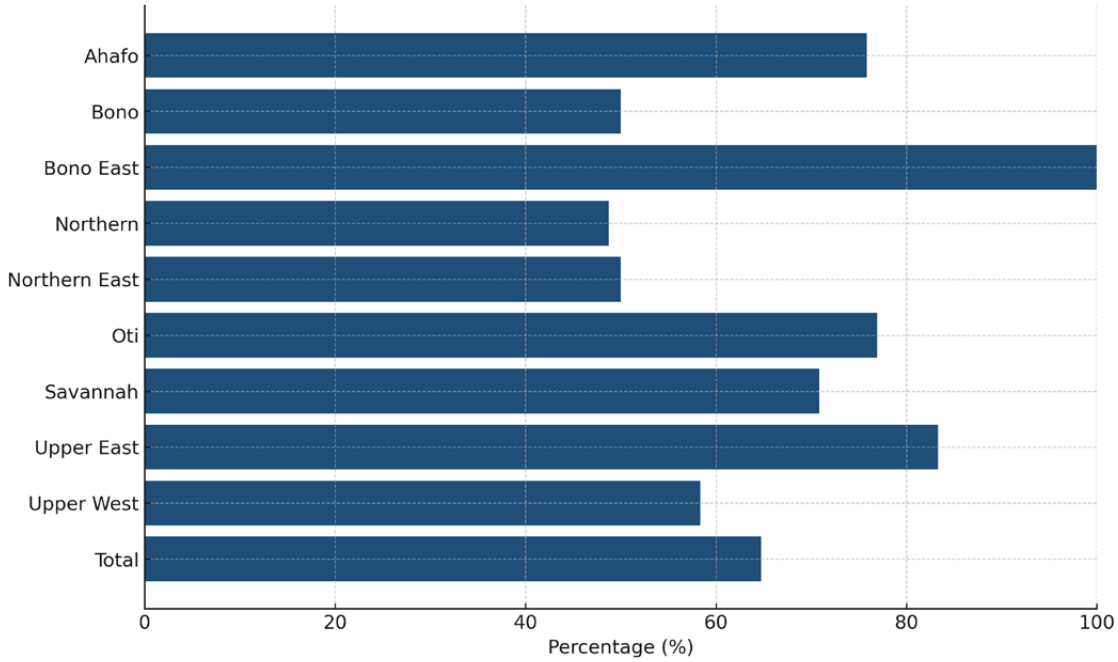
Bono presented a more balanced impact, with both slight and significant decreases reported by 26 percent of communities, and 17 percent experiencing an extreme decrease.

Communities indicated having experienced a significant decrease in egg production from surviving poultry, with 32 percent of communities reporting a significant decrease (25 to 50 percent lower than usual) and 13 percent reporting an extreme decrease. In Upper East and Northern East regions, the impact on egg production was particularly severe. Some 35 percent of communities in Upper East reported an extreme decrease, and another 35 percent noting a significant decrease. In Northern East, 13 percent of communities reported an extreme decrease, with 53 percent facing a significant decline.

Animal disease outbreak

The results from the focus group discussions indicate a significant increase in animal disease outbreaks across various regions in Ghana, with 65 percent of communities reporting such occurrences over the past three months. Regions like Bono East and Upper East were the hardest hit, with 100 percent and 83 percent of communities, respectively, experiencing an increase in animal diseases. Similarly, Ahafo, Oti and Savannah regions reported high incidences, with over 70 percent of communities affected. These outbreaks, likely exacerbated by the stress from the recent dry spell, pose a serious threat to livestock health, further compounding the challenges faced by farmers who were already dealing with reduced productivity.

FIGURE 10. Percentage of communities reporting outbreak or increase in animal diseases in the past three months



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Transhumance patterns

The results from the focus group discussions indicate that the dry spell impacted transhumance patterns in certain regions of Ghana, with 20 percent of communities reporting changes in livestock movement. The most pronounced shifts were observed in the Upper East (46 percent) and Oti (38 percent) regions, where herders likely altered their movement patterns in search of water and pasture. Notable adjustments were also reported in regions such as North East (19 percent), Savannah (21 percent) and Upper West (19 percent). In contrast, regions like Bono and Bono East saw minimal changes, with the majority of communities indicating that transhumance patterns remained stable.

WATER

The recent dry spell in Ghana has had a significant impact on the quality and amount of available water. Communities across the country reported noticeable changes, with unpleasant odours being the most commonly observed issue (42 percent). Increased turbidity or cloudiness (36 percent) and heightened salinity (24 percent) are also concerns. These changes pose health risks and further limit access to safe drinking water.

Boreholes are the primary water source in the communities (77 percent), followed by rivers (44 percent) and wells (37 percent). A significant 80 percent of communities have experienced a decline in water levels in their primary water sources. The Upper West region has been hit the hardest (18 percent), while Bono East region has been least affected (1 percent). Declining water levels are causing increased competition for water resources and forcing communities to seek alternative sources, which are often less reliable.

For 40 percent of communities, the dry spell has meant traveling farther to reach their usual water sources. The most significant increases in distance are being faced in North East (69 percent) and Upper East (58 percent). The extent of the increased distance to water sources is alarming with 10 percent of communities now traveling over 3 km further to access water, 20 percent traveling between 1 and 3 km further and less than 1 percent traveling less than 1 km further. This added burden disproportionately affects women and girls, who typically bear the responsibility of water collection. The increased time spent fetching water can lead to reduced productivity in other essential activities, like agriculture and education.

The dry spell in Ghana has had a multifaceted impact on water access and quality. Urgent interventions are needed to address the declining water levels, the deteriorating quality and the increased distances to water sources. Failure to act could lead to severe humanitarian consequences, including food insecurity, increased disease transmission, population displacement and further economic hardship. Communities have implemented some measures to counter the impacts of dry spell which include limiting washing (39 percent), water conservation practices (26 percent), and water rationing (25 percent).

SUPPLY AND SALES OF AGRICULTURAL INPUTS

In terms of business profile, most of the traders interviewed were retailers (72 percent of seed traders, 88 percent of fertilizer traders and 60 percent of pesticide traders), and a minority of them were wholesalers. Overall, a third of the traders reported that their business has been closed in the month prior to the assessment, in some cases for a period beyond a month. The causes of closure vary, and encompass higher operating costs, lack of capital for investment and a reduction in the number of clients, which is possibly linked with the dry spell.

Shocks and challenges

The study explored if the supply and sales of agricultural inputs had been affected by any shocks and if traders experienced any challenges in the three months prior to the interview. More than half of the traders experienced at least one shock. The first mostcited shock was the dry spell (82 percent), which was mentioned by traders across all districts. Some traders (33 percent of seed traders and 36 percent of fertilizer traders) mentioned the dry spell as one of the shocks experienced. The impact of the dry spell was most probably felt in terms of lower demand for inputs from the farmers, due to less purchases owing to reduced use, and reduced purchasing power due to decrease in income.

High fuel prices were also considered a shock affecting the business in the previous three months by 46 percent of the traders. This likely translated to increased businesses costs for traders already experiencing reduced sales compared to prior to the dry spell.

Other challenges encountered by the agricultural input traders included less demand from buyers (59 percent), in particular in Bono East (100 percent) and Bono (89 percent), lack of access to capital/credit (56 percent), more customers buying on credit (31 percent), transport issues (24 percent), insufficient supply (21 percent), in particular in North East and Upper East (both 40 percent), and difficulties accessing the market (18 percent).

The reduced demand from buyers and purchases on credit are most likely results of the impact of the dry spell, which limited the need for agricultural inputs and led to lowered purchasing power of farmers.

Supply of agricultural inputs

Seeds traders listed among their main sources of seed supply: seed companies (59 percent), other seed traders (32 percent) and seed producers (25 percent) located outside the district area where the seed traders operate. Since the start of the dry spell, over a third of traders (37 percent) changed their most important seed supply source as result of the dry spell (56 percent), probably because of production constraints that reduced the volume of seeds available in the market, less demand (44 percent), possibly in relation with the need to search for more affordable product to sell in the market, poor quality of supply from the previous source (22 percent), and price change by the previous source (22 percent), with the latter possibly motivated by the need to search for a more affordable supply source.

A third of seed traders expected that the supply of seeds would not be sufficient in the three months following the assessment. This was reported as due to production supplyrelated reasons, such as dry spell (77 percent), lower production/processing (37 percent), bad harvest due to natural shock (23 percent), and poor economic situation (21 percent). In the case that origin of supply is affected in next three months, around half (44 percent) of the traders anticipated that the supply of locally produced seeds (produced within the same district) might be affected, as well as the supply of imported seeds (62 percent) and the supply of domestically produced seeds (within the country but outside of the district, 38 percent).

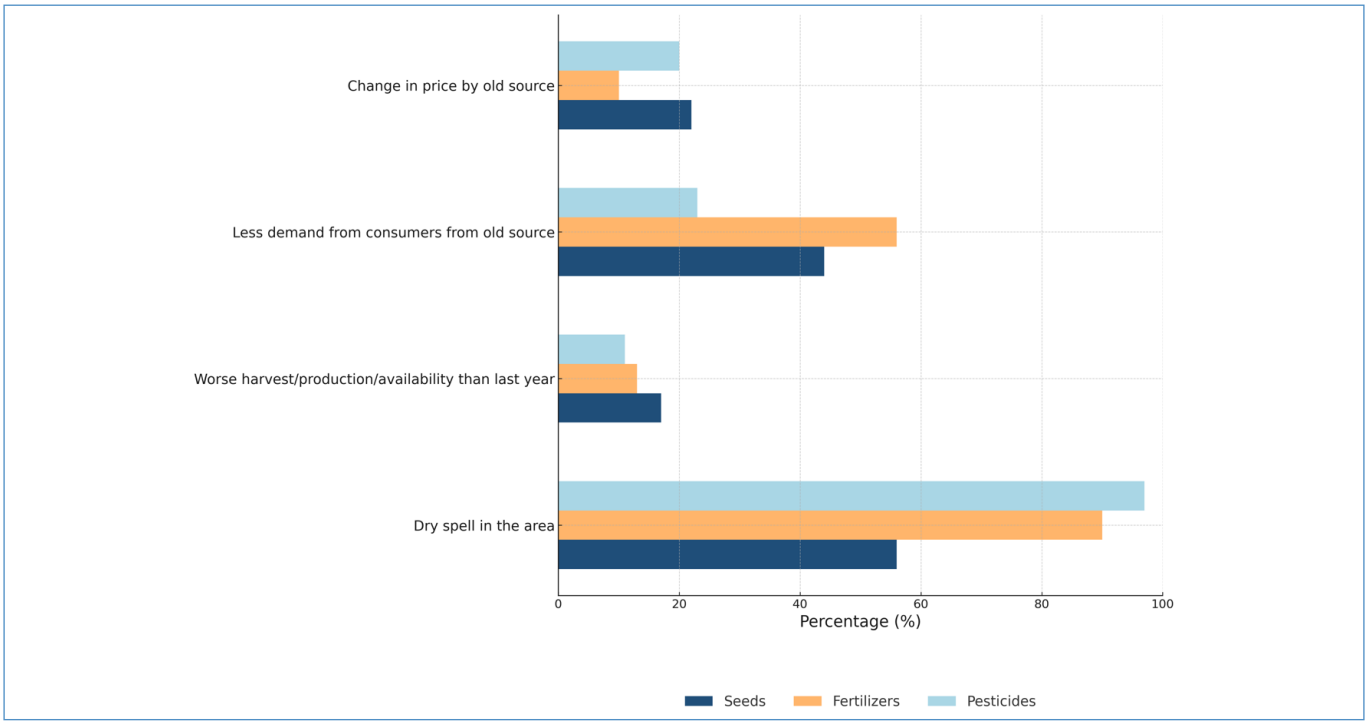
The second most important agricultural input, fertilizer, was sourced through fertilizer companies (62 percent), fertilizer traders (35 percent) and fertilizer manufacturers/producers (33 percent), all located outside the district where the fertilizer traders were operating at the time of the assessment.

Around one-third of fertilizer traders changed their most important supply source during the past three months preceding the assessment. The main reasons for changing the most important supply source included the dry spell (reported by 90 percent of traders) and less demand from consumers for supply from the previous source (44 percent), price change by previous source (10 percent), less supply (10 percent) and lower profit margins on supply from previous source (10 percent). This could be linked with the fact that the dry spell has led in general to less demand and the need to seek for less expensive supply sources.

In the case of supply of fertilizer in future, 41 percent of traders expected that the supply of fertilizer would not be sufficient in the three months following the assessment. This view was reported as due to the dry spell (79 percent), lower production/processing (27 percent) and poor economic situation (26 percent), as perceived by the fertilizer traders.

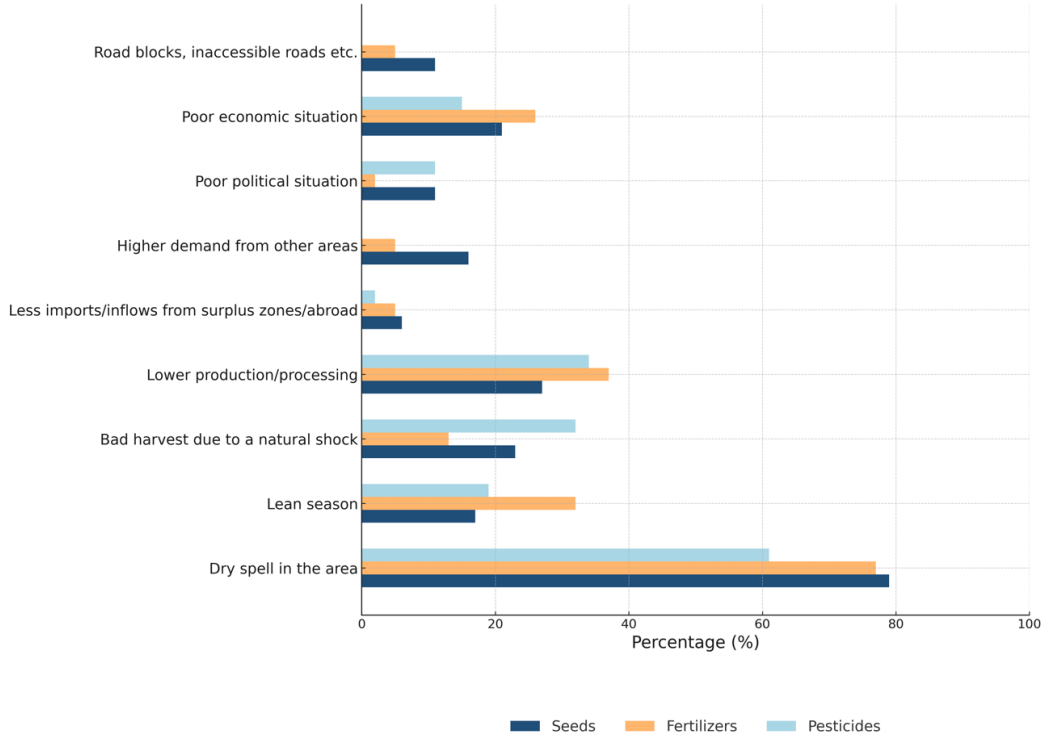
Furthermore, one-fourth of the traders anticipated that the supply of locally produced fertilizers (produced within the same district) might be affected in the next three months after the assessment, 45 percent expected the same about supply of domestically produced fertilizers (within the country but outside of the district) and 62 percent anticipated this about the supply of imported fertilizers.

FIGURE 11. Main reasons for change in main supply source of agricultural inputs



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 12. Main reasons for insufficient supply of agricultural inputs in months following the assessment

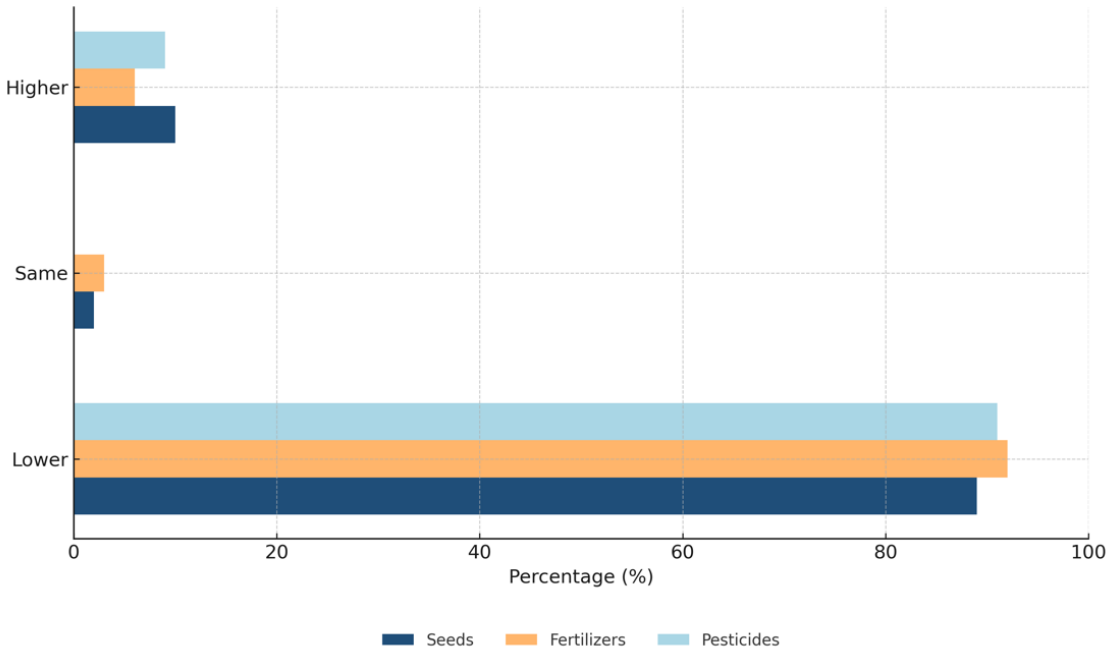


Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Sales/demand of agricultural inputs

An overwhelming majority (90 percent) of the agricultural input traders interviewed mentioned that since the beginning of the dry spell, the number of customers has reduced, and 92 to 100 percent of the traders reported that the sales volume has decreased.

FIGURE 13. Change in number of customers since the start of the dry spell



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

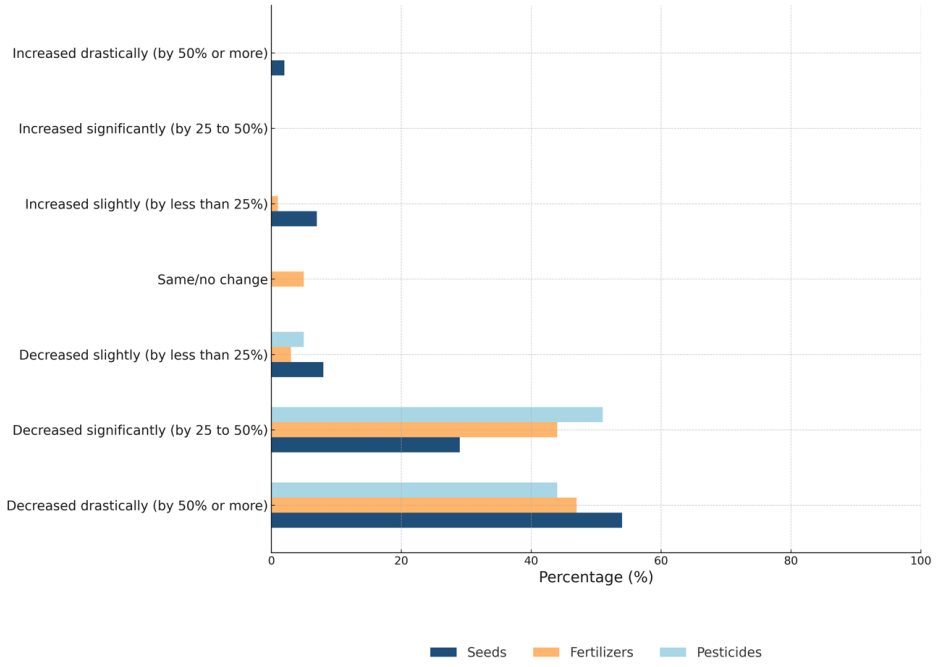
The most important reasons for the change in sales volume, as reported by agricultural inputs traders, are dry spell in the area (reported by 94 percent), less demand from the consumers (50 percent) and worse harvest/production than last year (27 percent). Less demand from consumers and worse harvest/production are clearly linked to dry spell in the area.

The reduction in demand for important crop inputs will most likely have adverse impacts on crop production, agriculture-based livelihoods and food security.

Risks for business in the near future

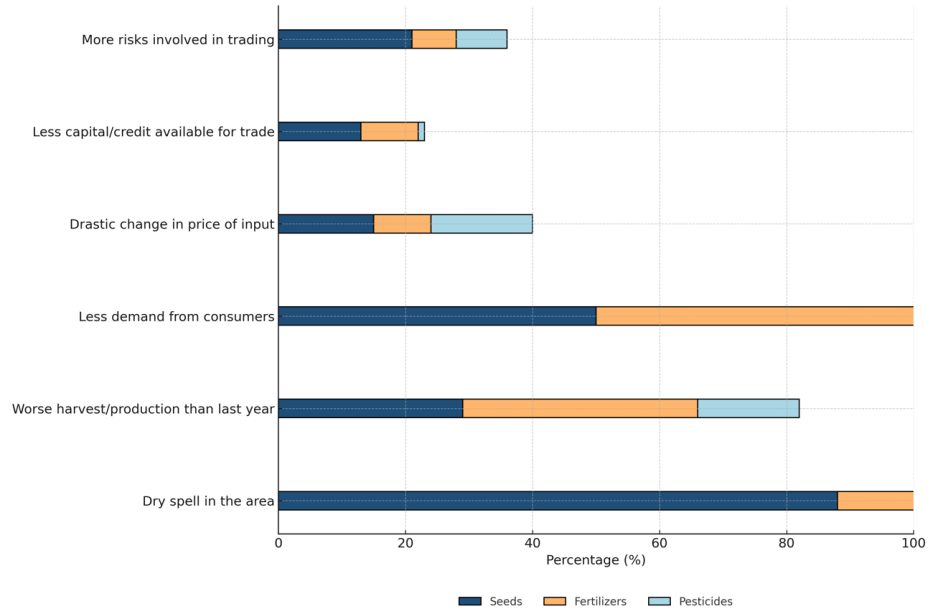
Overall, 13 percent of the interviewed agricultural inputs traders reported very high risk of understocking, 12 percent reported high risk, 21 percent reported medium risk, whereas the remaining 54 percent reported either low or very low risk of understocking. The agricultural inputs traders were also concerned about losing their business; 12 percent reported very high risk of losing business, 15 percent reported high risk, 9 percent reported medium risk, whereas the remaining 64 percent believe they won't have any risk of losing their business.

FIGURE 14. Change in sales volume since the start of the dry spell



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 15. Most important reasons for change in sales volume of agricultural inputs since start of dry spell



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FOOD MARKET

Consumers' perspective

Significant disruptions in the availability and pricing of basic commodities were reported, likely due to the dry spell and its impact (current/anticipated) on agricultural production.

AVAILABILITY OF BASIC COMMODITIES

A vast majority of communities across the surveyed regions reported that the availability of basic commodities in the market was less than usual. On average, 83 percent of communities experienced shortages in basic commodities. The highest levels of scarcity were reported in Bono East (100 percent), Savannah (96 percent) and Upper West (90 percent). Only 1.3 percent of communities reported having more than the usual availability of commodities.

PRICING OF BASIC COMMODITIES

The pricing data indicates a sharp increase in the cost of basic commodities, with 83 percent of communities reporting that prices have increased by more than 50 percent compared to normal. This price surge is most pronounced in Bono East (100 percent), Savannah (96 percent) and Upper East (92 percent). Only a small fraction of communities reported prices that are the same or only slightly more than usual.

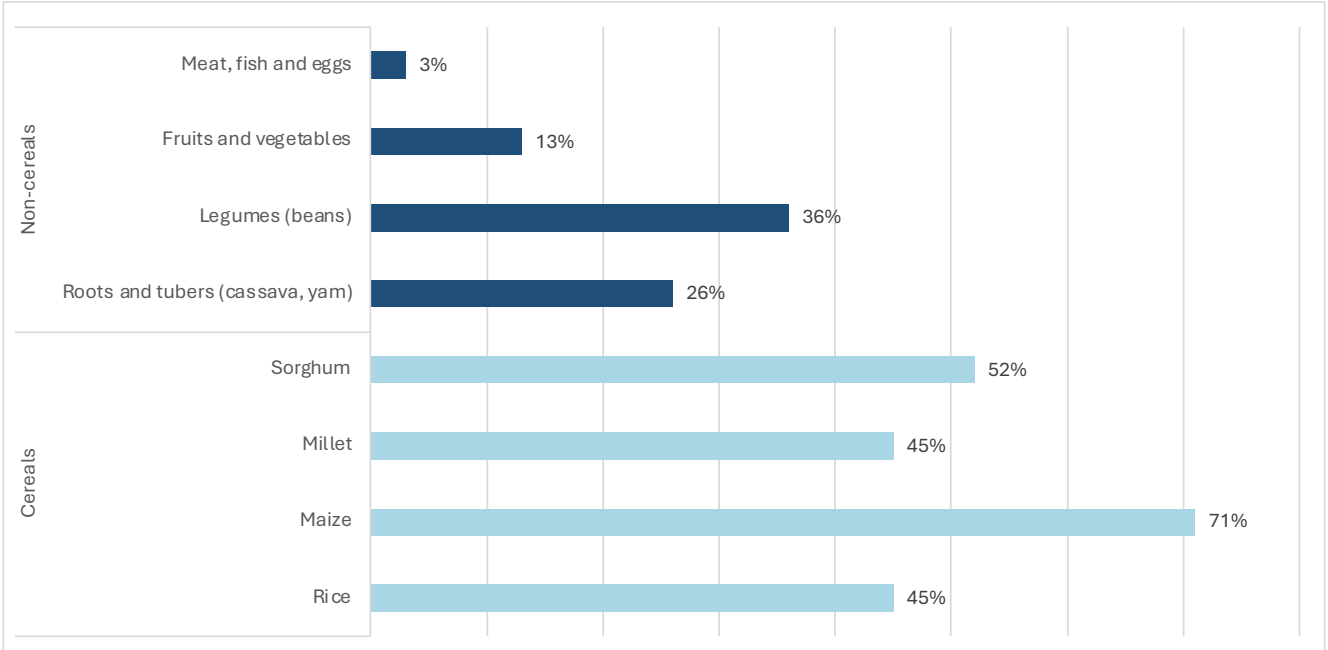
Traders' perspective

AVAILABILITY OF CEREAL AND NON-CEREAL STAPLES

The availability of key food items, both cereals and non-cereals, is increasingly constrained across most assessed markets, with notable scarcity of specific commodities. Maize shortages are particularly acute, with 63 percent of traders reporting scarcity, most pronounced in the Wa market (Upper West) and Nkwanta market (Oti), where all traders surveyed identified maize scarcity as a critical challenge. Similarly, 48 percent of traders highlighted shortages of other cereals such as sorghum and millet, while 39 percent reported a shortage of rice. Non-cereal staples, including roots and tubers (e.g. yam, cassava) and legumes (e.g. beans), were also reported as scarce by 31 percent and 36 percent of traders, respectively.

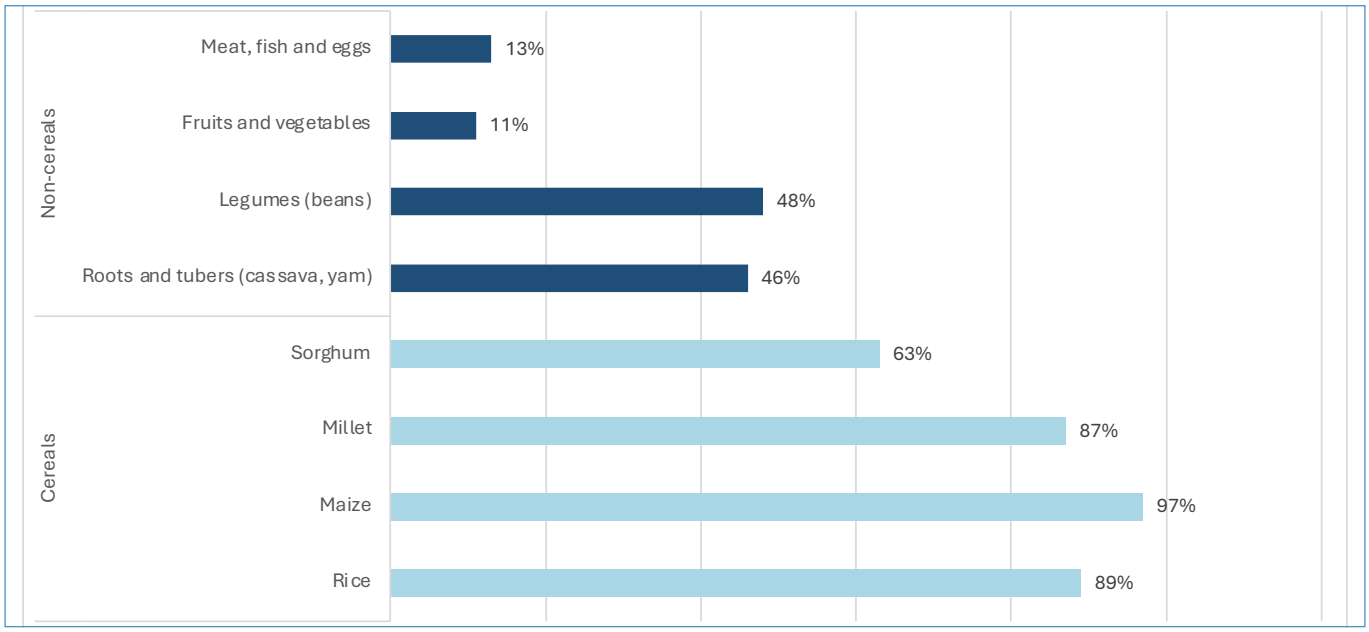
The scarcity of key food commodities has raised significant concerns among traders, with 34 percent reporting that they are unable to maintain cereal and non-cereal staple stock availability for more than a week under current demand conditions. Additionally, 71 percent of traders fear that maize stocks may be depleted within a week if demand continues at current levels. Similar concerns were noted for sorghum (52 percent), rice and millet (45 percent), as well as roots and tubers (26 percent) and legumes (36 percent).

FIGURE 16. Scarcity of cereals and non-cereals



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 17. Traders' fear of stock depletion within one week



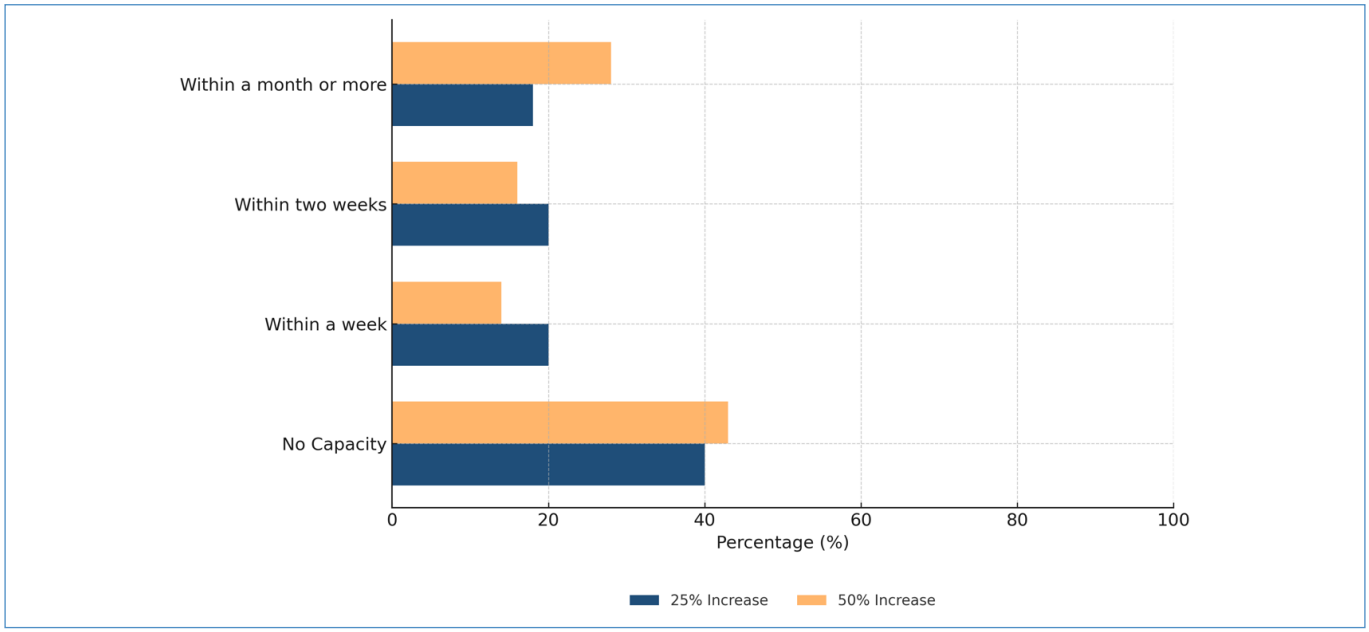
Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

In contrast, the availability of fruits, vegetables, meats, eggs and fish appeared relatively stable across most markets, with only a minority of traders expressing concerns about potential depleted stocks. However, in Northern region, particularly in Aboaboo market – one of the areas hardest hit by the prolonged dry spell – 60 percent of traders expressed concern about potential stock depletion of fruits and vegetables. This regional variation underscores the localized impact of the dry spell on market availability.

The reduction in the supply of these staple foods contributes to rising market volatility, driven by both limited availability and potential price increases, which in turn threatens overall market stability. If the scarcity persists, traders may be forced to adjust prices upward, exacerbating inflationary pressure and further limiting food access for vulnerable populations. This dynamic could potentially create a negative feedback loop: reduced availability drives price hikes, erodes purchasing power and deepens food insecurity, creating additional market instability.

Moreover, only 60 percent of traders indicated they would be able to replenish their stock within a week, leaving nearly one in two traders at risk of running out of stock within that timeframe. In a similar vein, 40 percent of traders reported being unable to accom-

FIGURE 18. Ability of traders to meet increased demand



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

modate a 25 percent increase in demand, and this figure rises to 43 percent when demand increases to 50 percent. This indicates that even modest demand surges could further strain already fragile market supplies, exacerbating supply chain disruptions and intensifying the risks of stock depletion. The limited capacity of traders to meet increased demand underscores the market's vulnerability to fluctuations, further contributing to instability and price volatility.

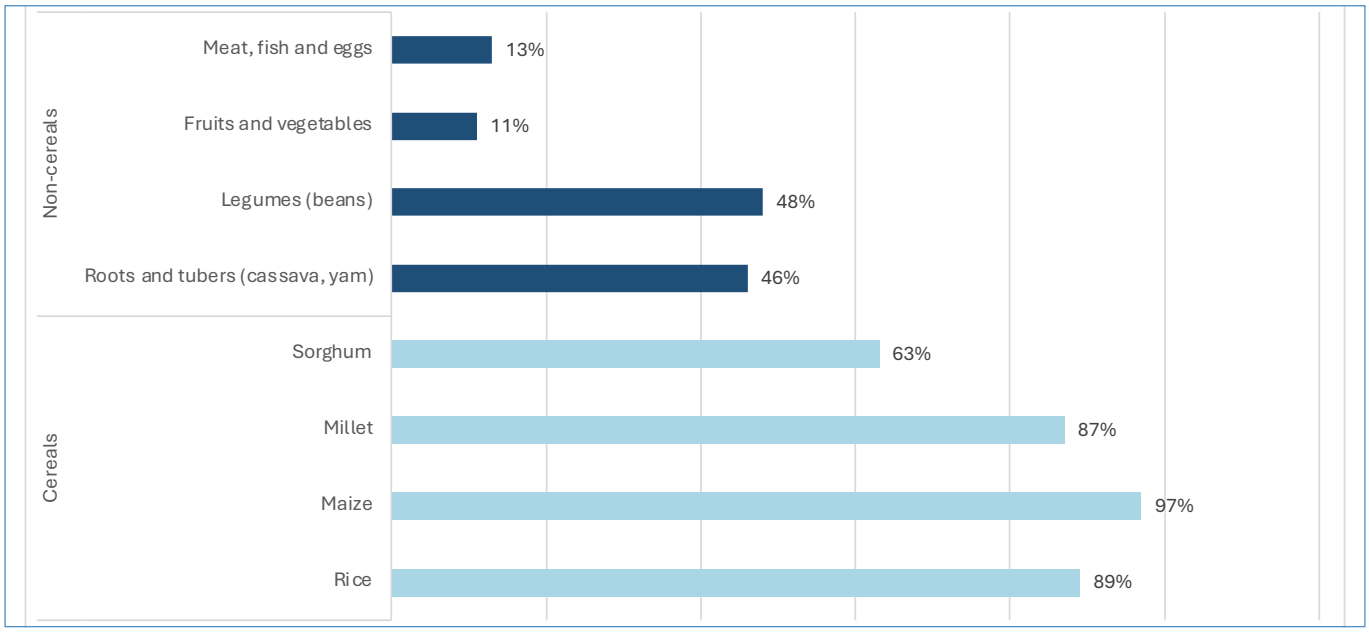
PRICE INSTABILITY AND IMPLICATION

DEMAND, SUPPLY AND PRICE EVOLUTION

The current market dynamics indicate significant price increases for key food commodities due to supply-demand imbalances caused by the prolonged dry spell. Traders reported that prices for essential cereals like maize (97 percent), rice (89 percent) and millet (87 percent) have surged by at least 25 percent. Non-cereal staples, such as roots and tubers (48 percent) and legumes (46 percent), also saw sharp price hikes. These increases reflect the strained supply chains and production shortfalls that are driving scarcity across markets, pushing prices upward.

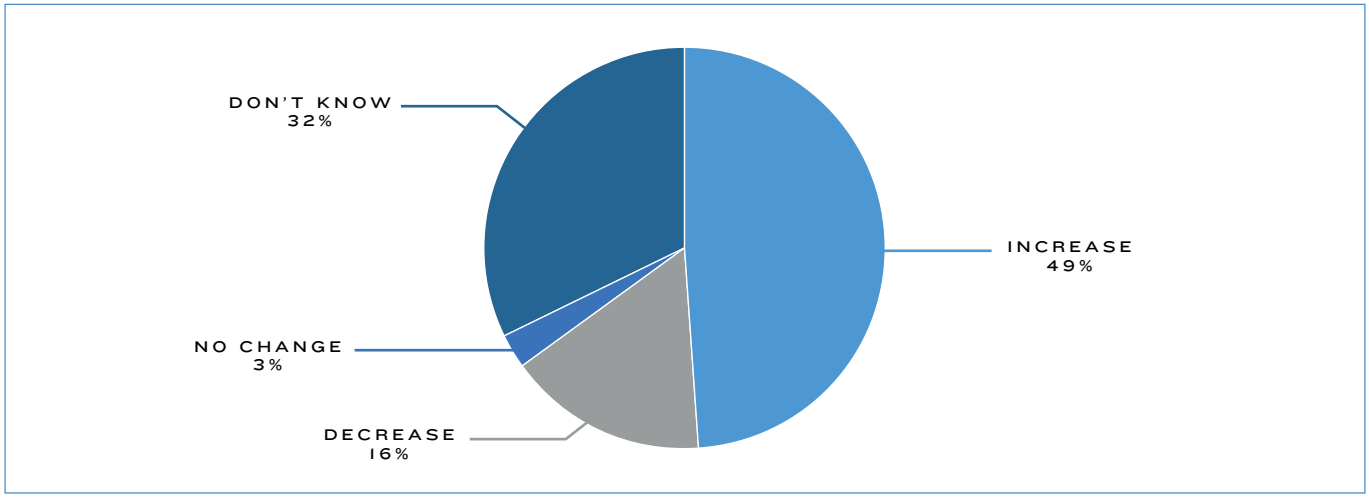
Market projections suggest further price increases may occur between September and December 2024, a period that would typically benefit from incoming harvests. However, the extended dry spell has delayed the harvest's impact on the market, undermining the usual price stabilization. This illustrates how climate shocks can disrupt agricultural markets, shifting supply cycles and contributing to inflationary pressures that threaten market stability.

FIGURE 19. Percentage of traders reporting significant price increase (>25%) in the last month



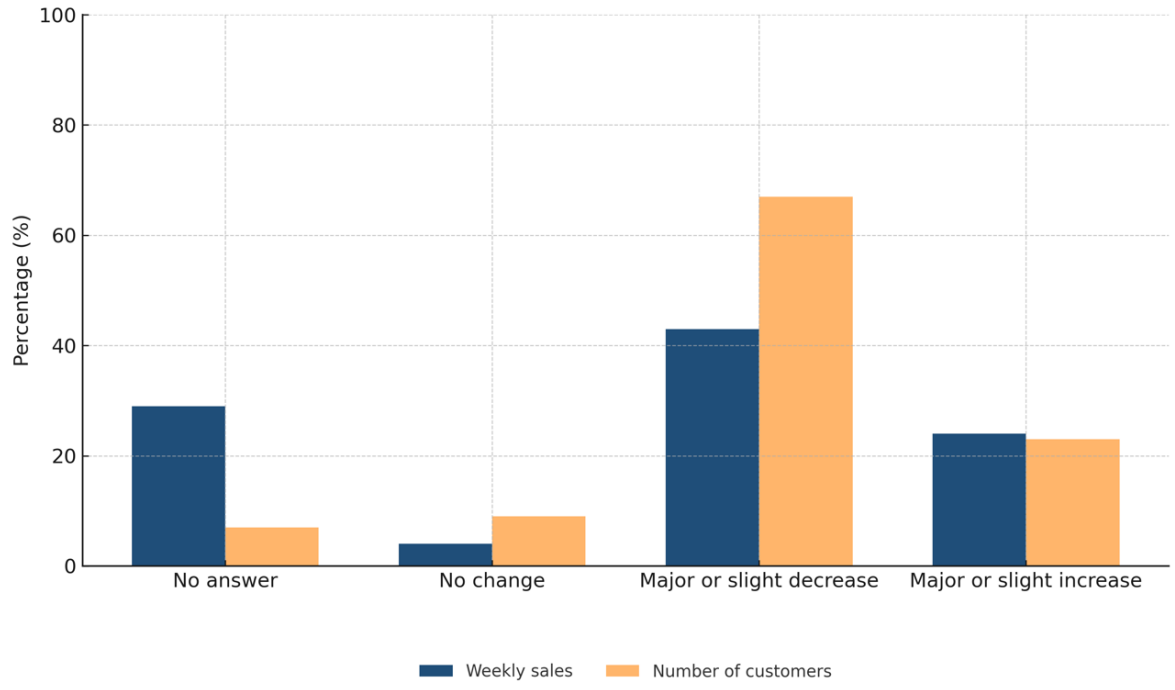
Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities. Rome*

FIGURE 20. Perception of farmers on the evolution of prices (September to December 2024)



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

FIGURE 21. Changes in weekly sales and in number of customers, compared to one year ago (percentage of traders)



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

On the demand side, soaring prices have led to a reduction in customer demand, with 67 percent of traders reporting decreased sales. This reflects diminished consumer purchasing power as inflation makes basic commodities less affordable. Additionally, 43 percent of traders noted that their weekly sales had declined due to poor harvests, reduced local demand, limited capital for trade and lower supply from other districts.

Overall, the market is experiencing an unstable equilibrium, with both supply-side constraints and demand-side reductions reinforcing each other. This dynamic is likely to exacerbate market volatility and push vulnerable populations further into food insecurity if the supply shortages continue and prices remain high. The risk of a prolonged inflationary cycle could further destabilize food markets and erode overall market stability.

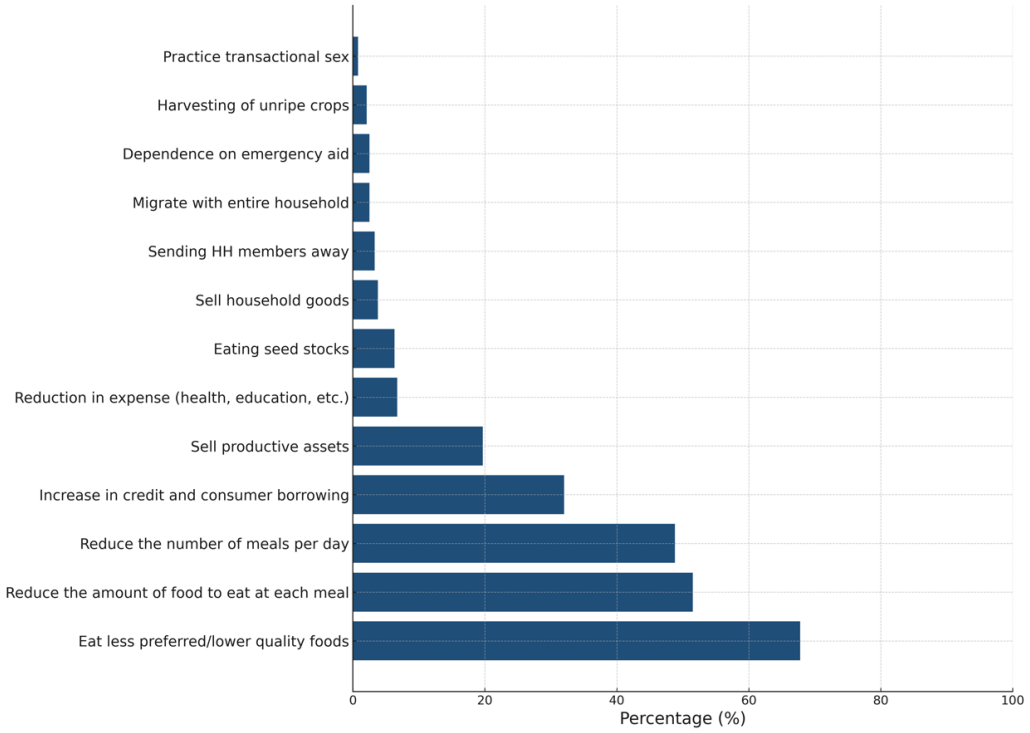
FOOD VOUCHER PROGRAMME: OPPORTUNITIES

Food voucher programmes play a crucial role in enhancing food security by providing targeted households with access to essential goods while supporting local markets. Based on discussions with traders regarding their experience and concerns with food voucher programmes, only 17 percent of those interviewed have previously participated in one or more such schemes. Key concerns raised by traders included the reliability of timely payments (48 percent), which could disrupt business operations if not addressed, and the potential for higher taxes (36 percent) as a result of participation. Additionally, 29 percent of traders highlighted risks related to counterfeit vouchers, which could undermine the programme's effectiveness, while 24 percent feared food price inflation due to increased demand. A further 29 percent mentioned constraints in scaling up their operations, such as limited access to capital, credit, supply chain challenges, and inadequate transport, storage, and security. Administrative difficulties were also noted by 19 percent of traders, who found the management of food voucher systems complex. To ensure the success of future food voucher programmes, the concerns raised by the traders underscore the importance of sensitization and awareness-raising efforts ahead of the programme's rollout.

COPING STRATEGIES

To cope with the dry spell, 80 percent of the communities reported employing coping strategies that are unusual for this season. The most commonly cited strategies included eating lower quality or less preferred food (68 percent), reducing food portions (52 percent) and cutting down the number of meals (49 percent).

FIGURE 22. Coping strategies in place in response to the dry spell (percentage of communities)



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

DISTRICT NEEDS PROFILING

Needs profiling was conducted to identify the most urgent support required by communities in the aftermath of the dry spell. This analysis is based on responses to a key question: *What assistance would communities need to support agricultural production (crops, livestock, or fisheries) in the next six months, especially in view of the coming season?* Communities were asked to identify their three priority needs, focusing on immediate interventions that would help them recover from the dry spell's impacts and prepare for the next season.

Overall, the following needs emerged from the communities interviewed: need for cash (80 percent), need for food (43 percent), needs for seeds (33 percent), fertilizer (57 percent) and need for irrigation (47 percent).

It is important to highlight that the question focused on identifying immediate priority needs for the next six months, which led to most communities prioritizing urgent short-term interventions. Consequently, medium- and long-term needs, such as infrastructure development or training, are less reflected in the current profiling.

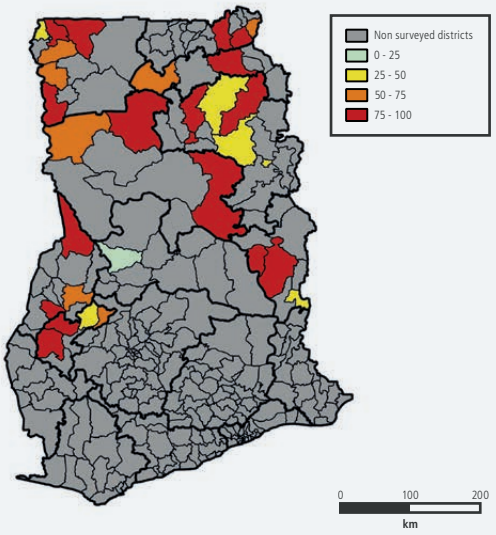
The profiling of districts was based on the four categories of needs:

- **Food or cash support**: This category includes districts where communities reported a 100 percent need for food or cash support.
- **Agriculture production support**: Districts where at least 80 percent of communities indicated a need for inputs, such as seeds or fertilizers, were grouped under this category.
- **Irrigation support**: This category captures communities that expressed the need for irrigation systems or infrastructure to enhance crop and vegetable production.
- **Livestock support**: Communities that reported significant animal deaths or an increase in livestock diseases were categorized in this group.

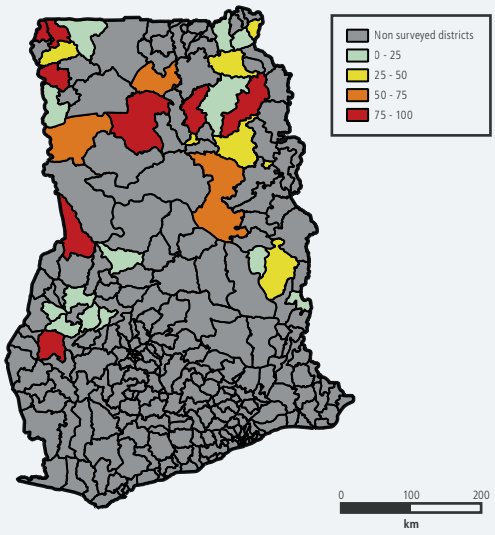
The categorization of districts based on the percentage of communities reporting needs in five key areas – cash, food, seeds for crop and vegetable production during the dry season, fertilizers and irrigation – is illustrated in Figure 22. Each need is categorized into four groups: less than 25 percent, 25–50 percent, 50–75percent, and more than 75 percent of communities reporting that need. This visualization helps to identify the districts with the most urgent requirements. Additionally, the last graph captures the percentage of communities reporting significant livestock deaths due to the dry spell and/or an increase in livestock disease, which were associated with the need to boost feed provision and the overall health of livestock and indirectly with the need for support with selling/destocking.

FIGURE 23. Percentage of communities reporting specific needs across the target districts

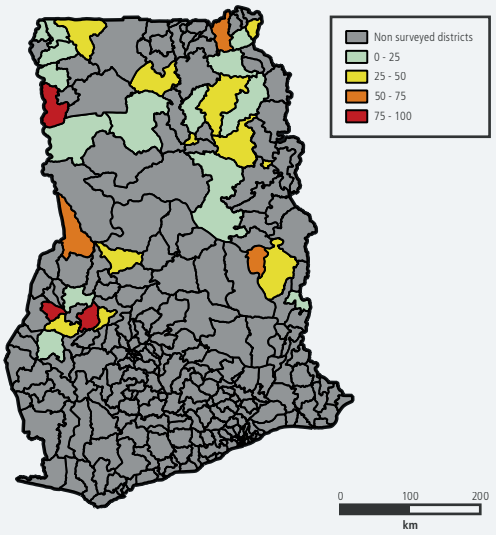
Percentage of communities reporting needs for cash by district



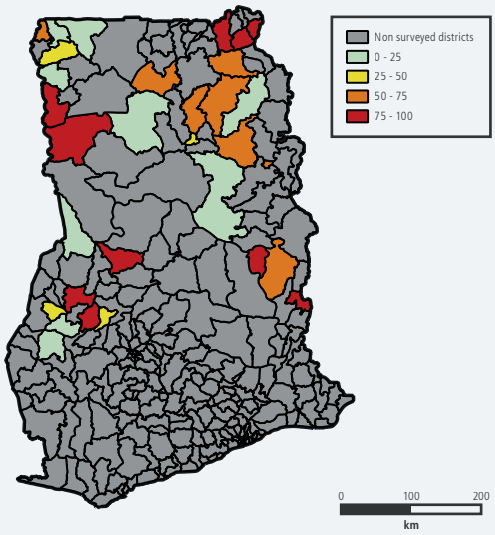
Percentage of communities reporting needs for food by district



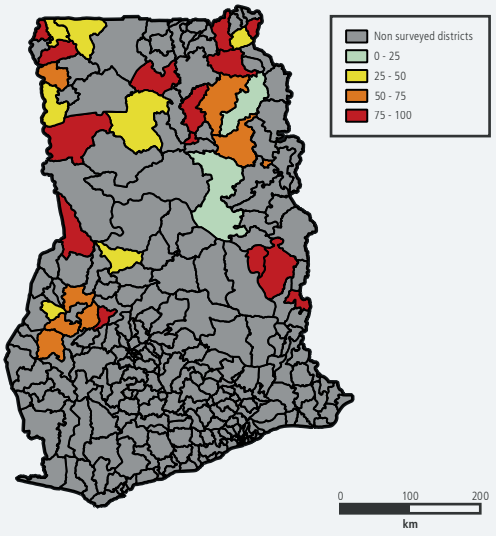
Percentage of communities reporting needs for seeds by district



Percentage of communities reporting needs for fertilizers by district



Percentage of communities reporting livestock death due to dry spell by district



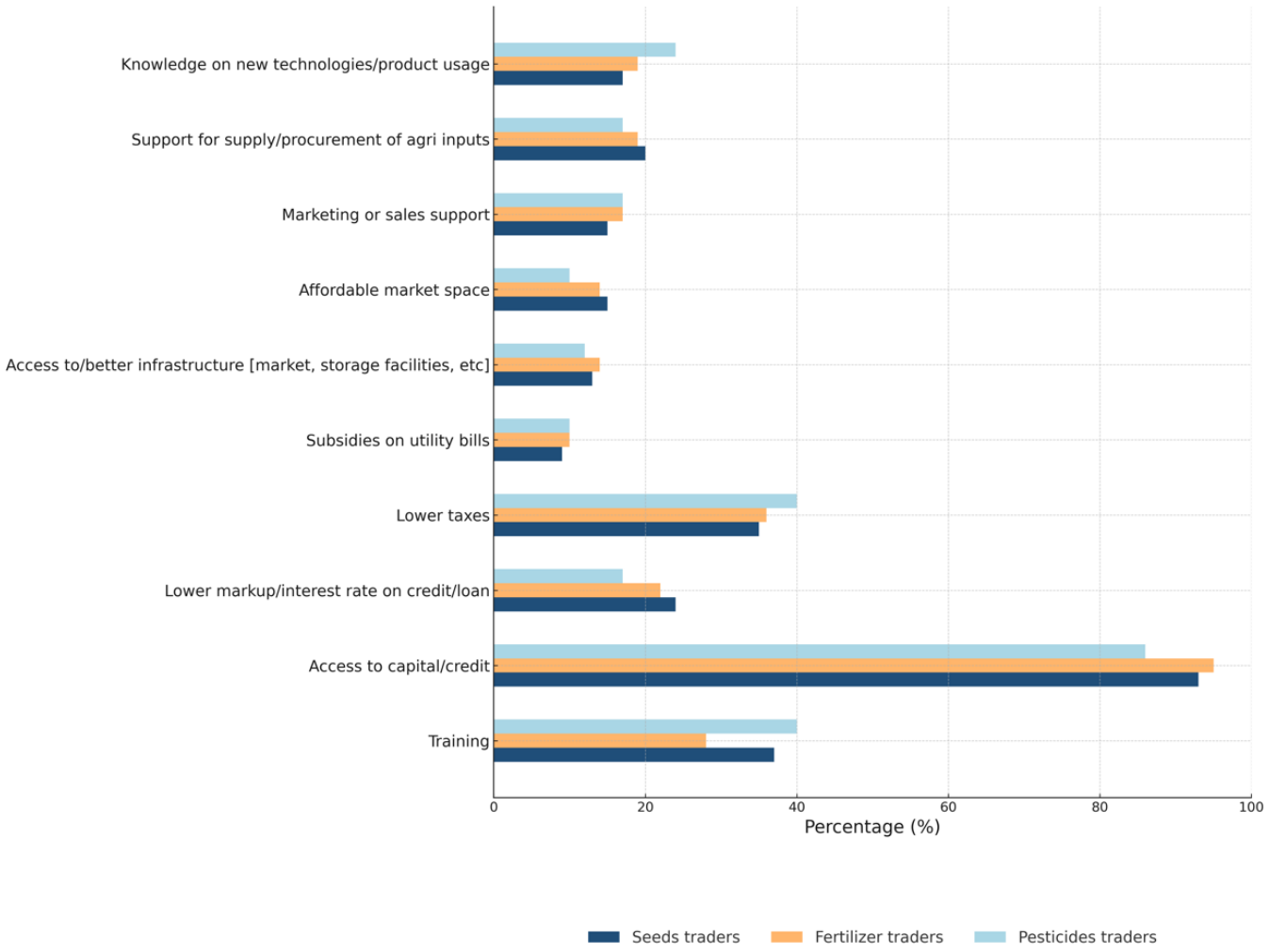
Note: Refer to the disclaimer on page ii for the names and boundaries used in this map.

Source of data: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and district-level intervention priorities.* Rome.

Source of map: Map generated using QGIS. QGIS Geographic Information System. Open Source Geospatial Foundation Project. http://qgis.org.

Agricultural input traders highlighted the need for access to capital/credit for business (90 percent), lower taxes (35 percent), training (32 percent), knowledge about new technologies (22 percent) and lower markup (21 percent). No major difference in needs emerged among traders of seeds, fertilizers and pesticides.

FIGURE 24. Main needs highlighted by agricultural input traders across the target regions



Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Estimate of the population impacted and people in need

A drought impact modelling tool that combines geospatial analysis, socioeconomic data and the outcomes of the current rapid assessment was applied to estimate the population impacted by the dry spell at national level in Ghana.

The methodology relies on four key components:

1. **Population Exposed to Drought (PopEXP):** The tool overlays Combined Drought Index (CDI)[1] for the 2024 agricultural season with gridded population data (WorldPop) to determine the proportion of the population living in agricultural areas affected by drought. It uses the two most severe levels of drought as measured by the CDI: severe and intense drought. Using a global crop mask, only agricultural areas are included in this calculation.

2. **Population Depending on Agriculture (PopAGRIC):** Using data from the 2022 Comprehensive Food Security and Vulnerability Analysis, this component identifies the percentage of the population relying on agriculture, particularly rainfed agriculture. The assumption is that these populations are primarily impacted by the dry spell.

3. **Population Vulnerable to Drought Impact (PopVULN):** This part utilizes the Wealth Index from the Comprehensive Food Security and Vulnerability Analysis as a proxy for poverty, focusing on populations in the lowest two wealth quintiles. The hypothesis is that wealthier populations have a greater capacity to cope with drought impact.

4. **Food Insecure Population (PopCH):** Using data from the Cadre Harmonisé (June–August 2024), this component estimates the population in need of immediate assistance by applying the prevalence of food insecurity to those impacted by severe drought. This layer is only used to estimate immediate food assistance needs.

5. **Total Population (TotalPOP):** The final and underlying layer is the total population based on the latest population projections used for the Cadre Harmonisé analysis.

Using these layers, the model calculated different outputs based on the population's exposure to drought, agricultural dependency, vulnerability and food insecurity. Here is a detailed breakdown of how each output is calculated:

1. **Population Impacted by Severe Drought:** This output identifies the population depending on rainfed agriculture in areas most severely affected by drought. It is calculated using the following formula:

$$\text{Population Impacted by Severe Drought} = \text{Total}_{POP} \times \text{Pop}_{EXP\ (SEVERE)} \times \text{Pop}_{AGRIC} \times \text{Pop}_{VULN}$$

2. **Population Impacted by Intense Drought:** This output is similar to the severe drought calculation, but considers areas exposed to less extreme, yet still significant, drought conditions (CDI: intense drought). It is calculated as follows:

$$\text{Population Impacted by Intense Drought} = \text{Total}_{POP} \times \text{Pop}_{EXP\ (INTENSE)} \times \text{Pop}_{AGRIC} \times \text{Pop}_{VULN}$$

3. **Population in Need of Immediate Assistance:** This output narrows down the population to those who are not only impacted by drought, but are also in immediate need of humanitarian assistance (food and cash). The formula for this output is:

$$\text{Population in Need of Immediate Assistance} = \text{Total}_{POP} \times \text{Pop}_{EXP\ (INTENSE)} \times \text{Pop}_{AGRIC} \times \text{Pop}_{VULN} \times \text{Pop}_{CH}$$

Estimated number of people impacted by severe drought and number of people affected

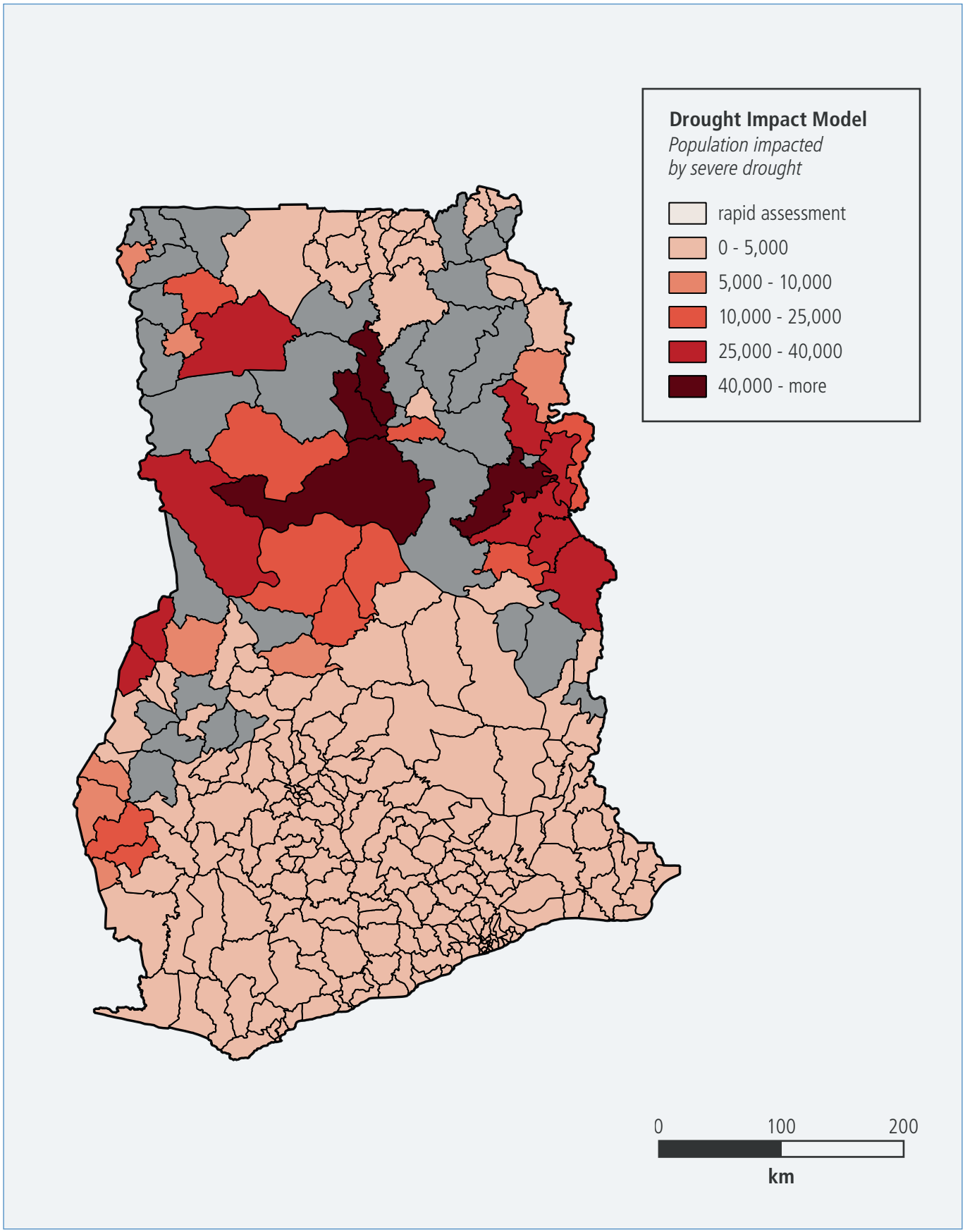
Overall, 1.04 million people are estimated to be affected by severe drought, of whom 95 percent (993 thousand people) are situated in the eight regions highlighted by MoFA to be most impacted by the dry spell, notably Bono, Bono East, Oti, Northern, North East, Savannah, Upper East and Upper West.

Furthermore, the results indicate that the most impacted areas are in the northern parts of the country, particularly in Savannah region. Moreover, Upper East was the least impacted region in the north – which was the epicentre of food insecurity and other developmental challenges, consistent with findings from the analysis by MoFA. Western North region recorded a significant number of affected individuals (51 873 people), surpassing the figures from the Northern region (20 546) and Upper East region (2 157). This highlights the need to prioritize Western North in response planning efforts, ensuring adequate resources and interventions are directed to address the growing vulnerabilities in the region.

The five districts with the highest number of people impacted by severe drought are Nanumba North (Northern), central Gonja (Savannah), Tolon (Northern), Kumbungu (Northern), and Jaman North (Bono). In these districts, between 40 000 and 55 000 people are estimated to be impacted by severe drought. Figure 25 highlights the population impacted by severe drought for each District (Adm2) of the country.

1 The CDI is a percentile-based index ranging from 0 to 100. To emphasize the significance of specific values for operational purposes, thresholds of 10, 20, 30 and 40 were chosen, which roughly correspond to drought events occurring once every 10, 5, 3.3 and 2.5 years, respectively. As consequence, drought that occurs once in 10 years or more was classified as "severe," drought that occurs once in 5 years or more as "intense," and drought that occurs once in 3 years or more as "mild." Droughts occurring more frequently than once every 2.5 years were disregarded.

FIGURE 25. Areas impacted by severe drought and estimated number of people affected



Note: Refer to the disclaimer on page ii for the names and boundaries used in this map.

Source of data: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.
Source of map: Map generated using QGIS. QGIS Geographic Information System. Open Source Geospatial Foundation Project. http://qgis.org.

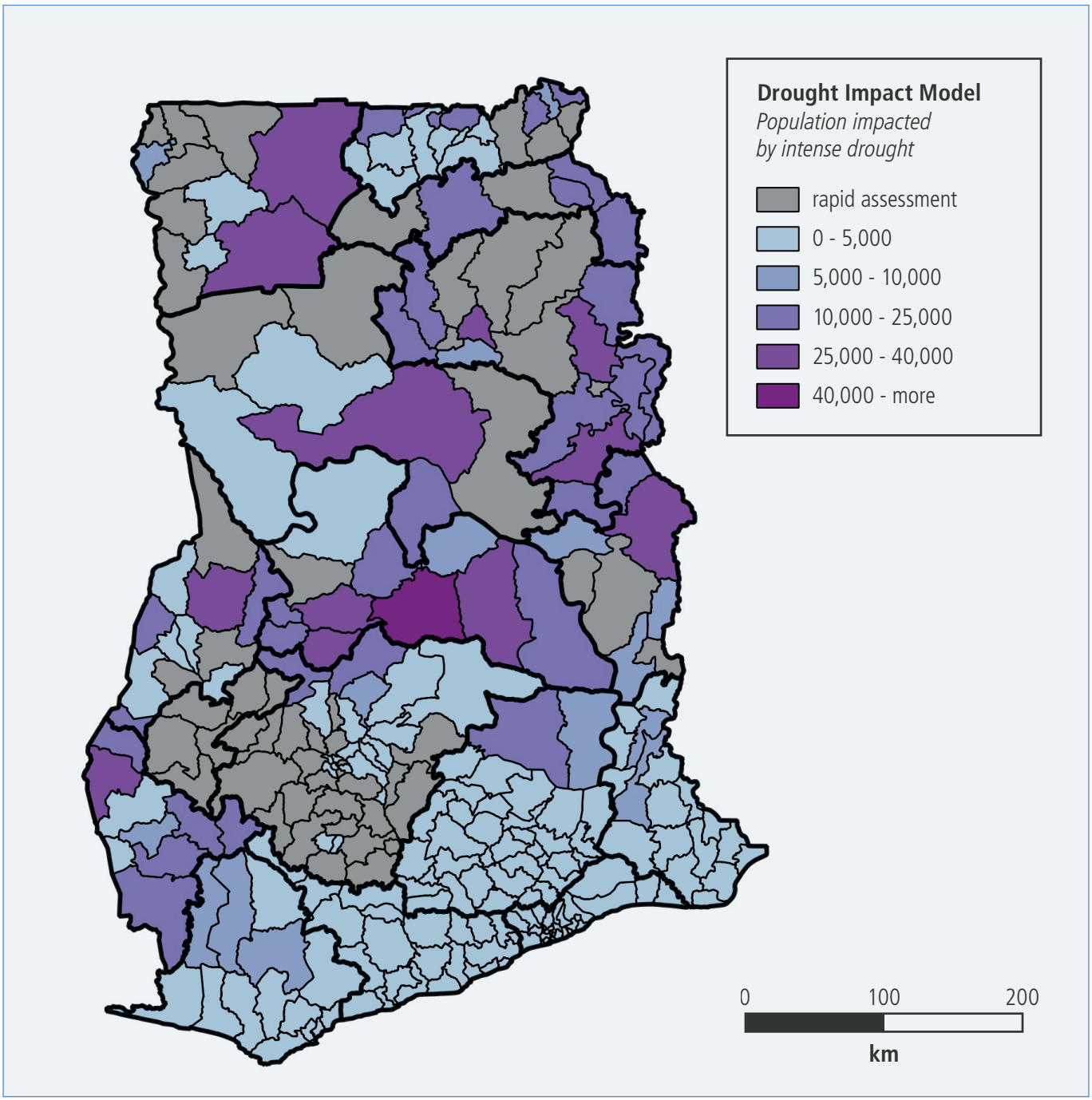
Estimated number of people impacted by intense drought and number of people affected

Figure 26 shows the populations impacted by intense drought, estimated at 1.71 million people, of whom 1.31 million (77 percent) reside in the eight regions most impacted by the dry spell.

The map suggests that the impacts are distributed more widely over the country, including in the extreme north and central parts of Ghana.

The five districts with the highest number of people impacted by intense drought are Atebubu Amantin (Bono East), Gushegu (Northern), East Mamprusi (Northern East), as well as Wa East and Sissala East (Upper West). In these districts, between 32 000 and 61 000 people are estimated to be impacted by intense drought.

FIGURE 26. Areas impacted by intense drought and estimated number of people affected



Note: Refer to the disclaimer on page ii for the names and boundaries used in this map.

Source of data: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.
Source of map: Map generated using QGIS. QGIS Geographic Information System. Open Source Geospatial Foundation Project. http://qgis.org.

Estimated number of people in need of emergency assistance

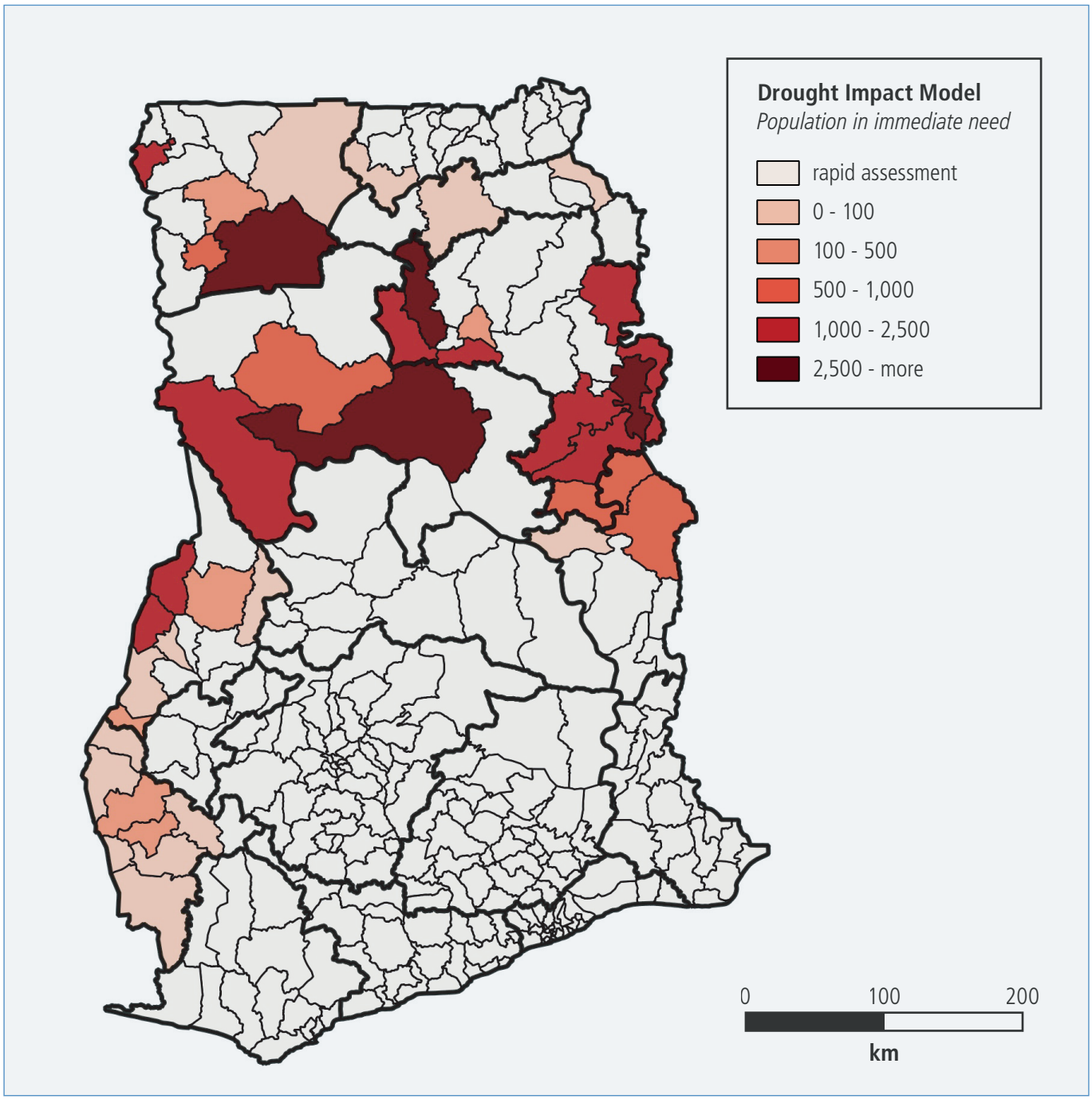
Figure 27 shows the number of people in need of immediate assistance – i.e. people that are impacted by severe drought and were already in food crisis before the dry spell occurred.

Based on this analysis, about 50 000 people are estimated to be in need of immediate lifesaving humanitarian assistance. These populations could be prioritized for immediate emergency assistance.

Almost half (47 percent) of these people are situated in Northern region, consistent with the analysis from MoFA that highlights Northern as being the region most impacted by the dry spell.

The five districts with the highest numbers of people in need of immediate assistance are Wa East (Upper West), Kumbungu and Zabzugu (both Northern), Central Gonja (Savannah) and Nanumba North (Northern). The number of people estimated to be in need of immediate assistance in these areas is from 2 300 to over 6 000.

FIGURE 27. Estimated number of people in need of emergency assistance



Note: Refer to the disclaimer on page ii for the names and boundaries used in this map.

Source of data: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.
Source of map: Map generated using QGIS. QGIS Geographic Information System. Open Source Geospatial Foundation Project. http://qgis.org.

Table 1 presents the result of the drought impact model at regional level, with the district level results presented in Annex III.

TABLE 1. Population in need of immediate assistance

REGION	TOTAL POPULATION	POPULATION IMPACTED BY SEVERE DROUGHT	POPULATION IMPACTED BY INTENSE DROUGHT	POPULATION IN NEED OF IMMEDIATE ASSISTANCE
Ahafo	580 588	162	90,374	5
Ashanti	5 571 818	0	93 062	0
Bono	1 269 838	92 092	114 014	3 684
Bono East	1 269 259	64 372	239 343	0
Central	2 998 739	1	2 397	0
Eastern	2 984 459	0	21 698	0
Greater Accra	5 776 709	0	0	0
Northern	2 485 113	391 100	355 294	23 459
Northern East	701 794	20 546	135 587	418
Oti	740 742	73 843	110 014	1 477
Savannah	694 396	180 830	96 924	9 206
Upper East	1 353 797	2 157	116 442	111
Upper West	943 446	167 615	144 781	10 888
Volta	1 695 741	0	19 996	0
Western	1 997 611	0	30 310	0
Western North	916 510	51 873	144 190	519
Total	**31 980 560**	**1 044 592**	**1 714 427**	**49 765**

Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Estimated number of people in need of medium- to long-term livelihood support

In addition to the estimates of the number of people in need of immediate assistance, the number of people in need of livelihood support in the next six months was estimated on the basis of the results from the rapid impact assessment and for the target districts.

The results from the district needs profiling were combined with national-level data on agricultural producers (crop and livestock) at national level, as provided by the statistics office of MoFA. This allowed for the determining of estimates of the population in need of crop and livestock support for the target districts (see summary provided in Tables 2 and 3).

For crop producers a distinction was made for those that will need support for the dry season, and those that need support for the main agricultural season, the rainy season. The population in need for crop support, as reported in Table 2, is associated with seed, fertilizer, pesticide and training support.

TABLE 2. Population in need of medium- to long-term livelihoods support (crop producers) by season and by region in the target districts

REGION	POPULATION IN NEED OF CROP-RELATED SUPPORT FOR THE DRY SEASON	POPULATION IN NEED OF CROP-RELATED SUPPORT FOR THE RAINY SEASON
Ahafo	8 878	42 605
Bono	20 919	20 919
Bono East	11 462	11 462
Northern	20 549	32 453
North East	7 405	25 048
Oti	25 048	4 019
Savanna	3 090	14 986
Upper East	14 986	42 605
Upper West	3 936	18 311
Total	**116 273**	**169 586**

Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities*. Rome.

In terms of livestock producers, the needs were derived mainly on the basis of the reported impact of the dry spell on livestock, which was associated with significant livestock deaths and/or an increase in livestock disease. Therefore, the population in need of livestock support, as reported in Table 3, is associated with support provided in terms of vaccines, drugs, feed concentrate and selling/destocking.

TABLE 3. Population in need of medium- to long-term livelihood support (livestock producers) by region in the target districts

REGION	POPULATION IN NEED OF LIVESTOCK SUPPORT
Ahafo	369
Bono	714
Bono East	181
Northern	1 163
Oti	682
Savannah	358
Upper East	328
Total	**3 796**

Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Based on the needs expressed by the communities surveyed during the rapid dry spell assessment, we extrapolated the requirements for agricultural and livelihood support across the nine regions covered in the study, for the rainy season (Table 4).

TABLE 4. Population in need of medium- to long-term crop livelihood support for the rainy season at regional level

REGION	POPULATION IN NEED FOR CROP RELATED SUPPORT FOR THE RAINY SEASON	POPULATION IN NEED FOR LIVESTOCK RELATED SUPPORT FOR THE RAINY SEASON
Ahafo	61 945	712
Bono	174 363	4 441
Bono East	213 572	5 897
Northern	173 958	3 492
North East	204 152	14 058
Oti	30 936	10 752
Savanna	72 856	9 595
Upper East	127 613	5 191
Upper West	65 175	6 752
Total	**1 124 570**	**60 890**

Source: FAO, WFP, IFAD, IWMI and UNICEF. 2024. *Assessment of priority areas impacted by dry spell in Ghana and districtlevel intervention priorities.* Rome.

Recommendations

Based on the assessment findings, recommendations were grouped into three key areas: basic needs, livelihood support and resilience-building interventions, aimed at addressing both immediate and long-term impacts.

BASIC NEEDS

- **Cash** was the most prominent need specified by the communities. Cash will aid in addressing diversified needs of households, such as those related to food, medical care, children's education, and other basic household needs, including the strengthening of households' livelihood capabilities for generating income and producing food. Considering the need for agricultural inputs that has been raised by the communities, cash+ should be considered. The prioritization matrix for cash response according to districts is presented in Figure 22.

- Almost all communities interviewed mentioned having difficulties accessing food due to price increases, weak financial capacities, low seasonal production, earlier than normal depletion of food stocks by households, and the exhaustion of means for purchasing adequate food by a portion of the communities. The need **for food assistance** was raised by about 43 percent of the communities interviewed. Therefore, food assistance through appropriate channels (in-kind, cash or voucher) should be prioritized depending on the suitability of the response option(s) to the prevailing local context dynamics of the affected communities, districts and regions (markets, traders, financial services, etc.).

- The implementation of **food voucher programmes** play a crucial role in enhancing food security by providing targeted households with access to essential goods while supporting local markets. To ensure the success of future food voucher programmes, the concerns raised by the traders underscore the importance of sensitization and awareness-raising efforts ahead of the programme's rollout.

LIVELIHOOD SUPPORT

- The dry spell has caused widespread loss of pastures and fodder, as well as led to livestock deaths. To reduce extreme vulnerability and increase adaptive capacity, there is a need to put in place proactive drought risk management strategies, such as **supplemental feeding**, and livestock management strategies (i.e. support with selling/destocking) and **vaccination campaigns** to protect the health of weakened animals.

- Provision of **fertilizers** for crops or vegetable production in view of the dry season, to enable farmers to take advantage of the season to produce crops for both food and income.

- There was a window for replanting of seeds in the season, limited mainly to the southern part of the country. Moving forward, provision of **seeds** should focus on early maturing, short-duration, and drought-tolerant varieties. Replanting could leverage on the collaboration between MoFA and research institutions, such as the Council for Scientific and Industrial Research that has conducted research on drought-resistant seeds, and can therefore avail sound information on replanting approaches.

RESILIENCE BUILDING

- Government, United Nations, international resource partners, international and local nongovernmental organizations and community-based organizations must prioritize the development of **irrigation facilities** for crops and/or vegetable production to be operational for the summer 2025 planting season. Installation of irrigation facilities and provision of irrigation systems will contribute significantly to building the resilience capacities of the areas to food insecurity challenges, considering the relevance of irrigation systems in stimulating and sustaining year-round crop production activities. Further irrigation assessment should be conducted to define the type of irrigation systems required, validate irrigation communities, and estimate the number of farmers to be assisted with irrigation.

- Over the longer term, the performance of the formal and informal **seed system** needs to be strengthened. Work should start now to strengthen collaboration between stakeholders who are already implementing seed or seed-related interventions within the country as well as increasing seed multiplication and strengthening existing distribution modalities (market-based and otherwise). These include the National Seed Trade Association of Ghana, the National Seed Council, Alliance for a Green Revolution in Africa, International Crops Research Institute for the Semi-Arid Tropics, African Fertilizer and Agribusiness Partnership, the Japanese International Cooperation Agency, private seed enterprises and seed cooperatives. The overall recommendation is to evaluate the capacity and performance of Ghana's seed system to form an understanding of the areas that require attention to strengthen the resilience of the system.

- Scaling up of **community-based seed multiplication interventions** for farmers in their local communities will include initial technical seed production training on seed production protocols and procedures to farmers. Thereafter, trainees would receive starter kits for seed multiplication activities to be supported by the National Seed Trade Association of Ghana and MoFA. The main objective would be to contribute to addressing the present deficiency of quality certified seeds within communities, in addition to empowering farmers with additional income opportunities.

- **Training and demonstration interventions** should be provided to farmers on good agronomic practices for increasing crop yields, and on climate-smart approaches to mitigate climate risks, such as water conservation practices and techniques involving mulching and adopting drip and pipe irrigation systems.

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ANNEX I.

List of districts for field assessment

REGION	SURVEYED DISTRICTS
Ahafo	Asunafo North Municipal
	Asutifi North
	Tano North Municipal
	Tano South Municipal
Bono	Banda
	Dormaa East
	Sunyani West
Upper East	Bawku West
	Garu
	North East Gonja
	Tempane
Upper West	Jirapa
	Lambussie-Karni
	Nadowli-Kaleo
	Nandom
	Sissala West
	Wa West
North East	East Mamprusi
	Mamprugu Moagduri
Northern	Gushegu
	Karaga
	Mion
	Sagnerigu
	Savelugu
Oti	Jasikan
	Krachi East Municipal
	Krachi West
Bono East	Kintampo South
Savannah	North Gonja
	Sawla-Tuna-Kalba

ANNEX II.

Districts profiling needs

	CASH	FOOD	VOUCHERS OR INPUT TRADE FAIRS	SEEDS FOR CROP AND/ OR VEGETABLE PRODUCTION	FERTILIZERS	PHYTOSANITARY INPUTS	IRRIGATION	GRAIN STORAGE (BAGS, SILOS)	TRAINING & TECHNICAL KNOWLEDGE
Asunafo North Municipal	100	100	0	0	20	0	60	0	0
Asutifi North	100	0	0	37,5	12,5	0	12,5	0	0
Banda	100	100	0	75	25	0	0	0	0
Bawku West	87,5	0	0	75	87,5	0	37,5	0	12,5
Dormaa East	100	25	0	87,5	37,5	12,5	37,5	0	12,5
East Mamprusi	100	37,5	0	0	75	0	50	0	37,5
Garu	100	0	0	0	100	0	100	0	0
Gushegu	100	87,5	12,5	0	12,5	0	37,5	0	0
Jasikan	50	20	40	0	90	0	50	0	50
Jirapa	75	50	0	0	37,5	0	75	0	0
Karaga	50		62,5	50	75	0	25	0	25
Kintampo South	25	12,5	0	50	100	0	87,5	0	0
Krachi East Municipal	87,5	37,5	0	37,5	75	0	12,5	0	0
Krachi West	87,5	0	0	62,5	87,5	0	25	0	25
Lambussie-Karni	100	87,5	0	0	12,5	0	25	0	0
Mamprugu Moagduri	75	62,5	12,5	50	62,5	0	37,5	0	0
Mion	50	50	0	50	62,5	0	62,5	0	0
Nadowli-Kaleo	62,5	100	0	0	25	0	75	0	25
Nandom	50	87,5	0	12,5	75	0	37,5	0	25
North East Gonja	100	57,1	25	0	12,5	0	75	0	0
North Gonja	100	87,5	12,5	0	0	0	50	0	12,5
Sagnerigu	100	37,5	37,5	37,5	50	0	37,5	0	0
Savelugu	87,5	87,5	0	12,5	62,5	0	37,5	12,5	0
Sawla-Tuna-Kalba	75	75	12,5	12,5	87,5	0	25	0	0
Sissala West	87,5	0	0	37,5	0	0	62,5	0	0
Sunyani West	75	0	0	25	87,5	0	87,5	0	0
Tano North Municipal	50	0	0	100	100	0	50	0	0
Tano South Municipal	75	12,5	0	37,5	37,5	0	75	12,5	0
Tempane	62,5	37,5	0	37,5	87,5	0	62,5	0	0
Wa West	87,5	0	0	100	100	0	0	0	0

	LIVESTOCK FEED	ACCESS TO WATER FOR LIVESTOCK	VETERINARY SERVICES	FACILITATION OF TRANSHUMANCE	TRAINING & TECHNICAL KNOWLEDGE FOR LIVESTOCK	INPUTS FOR FISHING OR AQUACULTURE PRODUCTION	INFRASTRUCTURE FOR FISHERIES OR AQUACULTURE	TRAINING & TECHNICAL KNOWLEDGE FOR FISHERIES OR AQUACULTURE	ENVIRONMENTAL OR INFRASTRUCTURE REHABILITATION	COLD STORAGE	MARKETING OR SALES SUPPORT
Asunafo North Municipal	0	0	0	0	0	0	0	0	0	0	0
Asutifi North	12,5	0	0	0	0	0	0	0	0	0	12,5
Banda	0	0	0	0	0	0	0	0	0	0	0
Bawku West	0	0	0	0	0	0	0	0	0	0	0
Dormaa East	0	0	0	0	0	0	0	0	0	0	0
East Mamprusi	0	0	0	0	0	0	0	0	0	0	0
Garu	0	0	0	0	0	0	0	0	0	0	0
Gushegu	0	0	0	0	0	0	0	0	0	0	0
Jasikan	0	0	0	0	0	0	0	0	0	0	0
Jirapa	0	25	12,5	0	0	0	0	0	0	0	25
Karaga	0	12,5	0	0	0	0	0	0	0	0	0
Kintampo South	0	0	0	0	0	0	0	0	0	0	25
Krachi East Municipal	0	0	0	0	0	0	0	0	0	0	12,5
Krachi West	0	0	0	0	0	0	0	0	0	0	12,5
Lambussie-Karni	12,5	0	0	0	0	0	0	0	0	0	0
Mamprugu Moagduri	0	0	0	0	0	0	0	0	0	0	0
Mion	0	0	0	0	0	0	0	0	0	0	0
Nadowli-Kaleo	0	0	0	0	0	0	0	0	0	0	0
Nandom	0	0	0	0	0	0	0	12,5	0	0	0
North East Gonja	0	12,5	0	0	0	0	0	0	0	0	0
North Gonja	0	0	0	0	12,5	0	0	0	0	0	0
Sagnerigu	0	0	0	0	0	0	0	0	0	0	0
Savelugu	0	0	0	0	0	0	0	0	0	0	0
Sawla-Tuna-Kalba	0	0	0	0	0	0	0	0	0	0	12,5
Sissala West	0	0	0	0	37,5	0	0	0	25	0	12,5
Sunyani West	0	0	0	0	25	0	0	0	0	0	0
Tano North Municipal	0	0	0	0	0	0	0	0	0	0	0
Tano South Municipal	0	0	0	0	0	0	0	0	25	12,5	12,5
Tempane	12,5	0	0	0	0	0	0	0	0	0	0
Wa West	0	0	0	0	0	0	0	0	0	0	0

ANNEX III.

Estimated number of people affected by intense and severe drought, and in need of emergency assistance

REGION	DISTRICT	TOTAL POPULATION	POPULATION IMPACTED BY SEVERE DROUGHT	POPULATION IMPACTED BY INTENSE DROUGHT	POPULATION IN NEED OF IMMEDIATE ASSISTANCE
Ahafo	Asunafo North Municipal	154,433	162	19 315	5
Ahafo	Asunafo South	94 278	-	15 764	-
Ahafo	Asutifi North	75 630	-	21 942	-
Ahafo	Asutifi South	70 322	-	1 654	-
Ahafo	Tano North Municipal	96 247	-	15 209	-
Ahafo	Tano South Municipal	89 678	-	16 490	-
Ashanti	Adansi Akrofuom	50 481	-	-	-
Ashanti	Adansi Asokwa	73 579	-	-	-
Ashanti	Adansi North	55 463	-	-	-
Ashanti	Adansi South	87 257	-	-	-
Ashanti	Afigya Kwabre North	75 100	-	-	-
Ashanti	Afigya Kwabre South	240 333	-	324	-
Ashanti	Ahafo Ano North	94 981	-	11 990	-
Ashanti	Ahafo Ano South East	65 000	-	6 382	-
Ashanti	Ahafo Ano South West	67 358	-	2 858	-
Ashanti	Amansie Central	95 299	-	-	-
Ashanti	Amansie South	119 176	-	674	-
Ashanti	Amansie West	112 058	-	896	-
Ashanti	Asante Akim Central Municipal	93 886	-	-	-
Ashanti	Asante Akim North	87 859	-	3 851	-
Ashanti	Asante Akim South	126 618	-	-	-
Ashanti	Asokore Mampong Municipal	196 023	-	-	-
Ashanti	Asokwa Municipal	128 676	-	-	-

Ashanti	Atwima Kwanwoma	240 516	-	1 652	-
Ashanti	Atwima Mponua	159 002	-	5 714	-
Ashanti	Atwima Nwabiagya North	158 768	-	821	-
Ashanti	Atwima Nwabiagya South	165 802	-	2 777	-
Ashanti	Bekwai Municipal	141 298	-	57	-
Ashanti	Bosome Freho	63 762	-	274	-
Ashanti	Bosomtwe	169 168	-	-	-
Ashanti	Ejisu Municipal	185 086	-	2 066	-
Ashanti	Ejura-Sekyedumase	140 996	-	11 861	-
Ashanti	Juaben Municipal	65 473	-	4 542	-
Ashanti	Kumasi Metropolitan	454 700	-	-	-
Ashanti	Kwabre East	303 980	-	388	-
Ashanti	Kwadaso Municipal	158 257	-	-	-
Ashanti	Mampong Municipal	119 448	-	8 859	-
Ashanti	Obuasi East	94 632	-	-	-
Ashanti	Obuasi Municipal	106 815	-	-	-
Ashanti	Offinso Municipal	140 586	-	1 331	-
Ashanti	Offinso North	85 455	-	19 296	-
Ashanti	Oforikrom Municipal	218 272	-	-	-
Ashanti	Old Tafo Municipal	117 129	-	-	-
Ashanti	Sekyere Afram Plains North	33 428	-	1 677	-
Ashanti	Sekyere Central	74 996	-	565	-
Ashanti	Sekyere East	76 595	-	1 083	-
Ashanti	Sekyere Kumawu	65 951	-	2 296	-
Ashanti	Sekyere South	122 975	-	830	-
Ashanti	Suame Municipal	139 581	-	-	-
Bono	Banda	29 606	6 853	1 275	274
Bono	Berekum East Municipal	111 631	-	4 339	-
Bono	Berekum West	51 968	1 736	2 656	69
Bono	Dormaa East	71 336	-	9 044	-

Bono	Dormaa Municipal	118 408	616	4 604	25
Bono	Dormaa West	50 339	4 297	11 904	172
Bono	Jaman North	123 878	39 513	-	1 581
Bono	Jaman South Municipal	113 875	29 726	11 454	1 189
Bono	Sunyani Municipal	203 396	-	2 505	-
Bono	Sunyani West	142 908	-	14 904	-
Bono	Tain	121 419	7 728	31 050	309
Bono	Wenchi Municipal	131 074	1 623	20 279	65
Bono East	Atebubu Amantin	152 880	-	61 042	-
Bono East	Kintampo North Municipal	147 143	15 817	4 381	-
Bono East	Kintampo South	94 004	20 950	21 578	-
Bono East	Nkoranza North	59 558	6 071	25 120	-
Bono East	Nkoranza South	120 916	-	29 515	-
Bono East	Pru East	107 102	2 134	8 477	-
Bono East	Pru West	73 180	16 043	18 608	-
Bono East	Sene East	76 026	3 216	12 614	-
Bono East	Sene West	73 658	140	28 234	-
Bono East	Techiman Municipal	256 652	-	16 536	-
Bono East	Techiman North	108 140	-	13 237	-
Central	Abura-Asebu-Kwamankese	130 511	-	-	-
Central	Agona East	103 100	-	-	-
Central	Agona West Municipal	143 531	-	-	-
Central	Ajumako-Enyan-Essiam	126 444	-	-	-
Central	Asikuma-Odoben-Brakwa	133 162	-	-	-
Central	Assin Fosu	93 064	-	-	-
Central	Assin North	84 451	-	-	-
Central	Assin South	111 144	-	-	-
Central	Awutu Senya	169 303	-	-	-
Central	Awutu Senya East	248 017	-	-	-
Central	Cape Coast Metropolitan	199 151	-	-	-

Central	Effutu Municipal	113 034	-	-	-
Central	Ekumfi	59 497	-	-	-
Central	Gomoa Central	87 671	-	-	-
Central	Gomoa East	323 692	1	-	0
Central	Gomoa West	135 803	-	-	-
Central	Komenda-Edina-Eguafo-Abirem Municipal	174 081	-	-	-
Central	Mfantseman Municipal	177 110	-	-	-
Central	Twifo Atti-Morkwa	105 750	-	-	-
Central	Twifo Hemang Lower Denkyira	69 285	-	-	-
Central	Upper Denkyira East Municipal	115 491	-	-	-
Central	Upper Denkyira West	95 447	-	2 397	-
Eastern	Abuakwa North	93 132	-	-	-
Eastern	Abuakwa South	75 435	-	-	-
Eastern	Achiase	57 481	-	-	-
Eastern	Akwapem North	107 432	-	-	-
Eastern	Akwapem South	78 468	-	-	-
Eastern	Akyem Mansa	92 868	-	-	-
Eastern	Asene Akroso Manso	79 056	-	-	-
Eastern	Asuogyaman	103 291	-	331	-
Eastern	Atiwa East	65 946	-	-	-
Eastern	Atiwa West	62 450	-	-	-
Eastern	Ayensuano	96 495	-	-	-
Eastern	Birim Central Municipal	77 836	-	-	-
Eastern	Birim North	84 331	-	-	-
Eastern	Birim South	36 371	-	-	-
Eastern	Denkyembour	78 577	-	-	-
Eastern	Fanteakwa North	58 132	-	199	-
Eastern	Fanteakwa South	55 732	-	-	-
Eastern	Kwaebibirem	124 144	-	-	-
Eastern	Kwahu Afram Plains North	67 893	-	7 935	-

Eastern	Kwahu Afram Plains South	75 489	-	12 645	-
Eastern	Kwahu East	81 328	-	226	-
Eastern	Kwahu South	81 973	-	102	-
Eastern	Kwahu West	148 352	-	-	-
Eastern	Lower Manya	123 920	-	-	-
Eastern	New Juaben North Municipal	95 074	-	-	-
Eastern	New Juaben South Municipal	127 774	-	-	-
Eastern	Nsawam Adoagyiri	158 725	-	-	-
Eastern	Okere	52 714	-	-	-
Eastern	Suhum Municipal	128 944	-	-	-
Eastern	Upper Manya	72 097	-	260	-
Eastern	Upper West Akim	95 268	-	-	-
Eastern	West Akim	122 560	-	-	-
Eastern	Yilo Krobo	125 171	-	-	-
Greater Accra	Ablekuma Central Municipal	179 098	-	-	-
Greater Accra	Ablekuma North Municipal	168 576	-	-	-
Greater Accra	Ablekuma West Municipal	162 522	-	-	-
Greater Accra	Accra Metropolis	300 842	-	-	-
Greater Accra	Ada East	80 907	-	-	-
Greater Accra	Ada West	80 564	-	-	-
Greater Accra	Adenta Municipal	251 523	-	-	-
Greater Accra	Ashaiman Municipal	220 302	-	-	-
Greater Accra	Ayawaso Central Municipal	100 411	-	-	-
Greater Accra	Ayawaso East Municipal	56 123	-	-	-
Greater Accra	Ayawaso North Municipal	67 116	-	-	-
Greater Accra	Ayawaso West	79 734	-	-	-
Greater Accra	Ga Central Municipal	351 781	-	-	-
Greater Accra	Ga East	300 053	-	-	-
Greater Accra	Ga North Municipal	249 137	-	-	-
Greater Accra	Ga South Municipal	370 722	-	-	-

Greater Accra	Ga West Municipal	332 793	-	-	-
Greater Accra	Korle Klottey Municipal	72 671	-	-	-
Greater Accra	Kpone Katamanso	441 890	-	-	-
Greater Accra	Krowor Municipal	151 427	-	-	-
Greater Accra	La Dade-Kotopon	148 517	-	-	-
Greater Accra	La-Nkwantanang-Madina	259 073	-	-	-
Greater Accra	Ledzokuku Municipal	230 090	-	-	-
Greater Accra	Ningo/Prampram	216 716	-	-	-
Greater Accra	Okaikwei North Municipal	169 887	-	-	-
Greater Accra	Shai Osudoku	111 824	-	-	-
Greater Accra	Tema Metropolitan	188 393	-	-	-
Greater Accra	Tema West Municipal	207 770	-	-	-
Greater Accra	Weija Gbawe Municipal	226 247	-	-	-
Northern	Gushegu	165 569	16 843	48 071	505
Northern	Karaga	122 834	11 630	29 433	698
Northern	Kpandai	135 726	13 135	24 245	657
Northern	Kumbungu	118 921	42 747	20 858	3 847
Northern	Mion	102 085	35 554	20 954	1 778
Northern	Nanton	54 593	3 828	25 504	306
Northern	Nanumba North	202 901	58 069	22 819	2 323
Northern	Nanumba South	114 391	34 620	29 739	2 077
Northern	Saboba	102 895	6 525	15 611	1 501
Northern	Sagnerigu	367 465	2 345	4 959	141
Northern	Savelugu	132 150	20 398	29 706	1 020
Northern	Tamale Metropolitan	402 988	19 982	6 742	2 198
Northern	Tatale Sanguli	80 443	20 997	10 684	1 050
Northern	Tolon	127 002	43 843	22 525	1 754
Northern	Yendi Municipal	166 060	27 813	28 301	-
Northern	Zabzugu	89 090	32 772	15 144	3 605
Northern East	Bunkpurugu Nakpanduri	87 741	78	15 411	9

Northern East	Chereponi	92 845	-	16 663	-
Northern East	East Mamprusi	200 231	-	45 290	-
Northern East	Mamprugu Moagduri	73 216	16 091	18 051	322
Northern East	West Mamprusi Municipal	187 183	4 377	21 118	88
Northern East	Yunyoo-Nasuan	60 578	-	19 054	-
Oti	Biakoye	73 998	-	6 699	-
Oti	Jasikan	61 499	-	3 149	-
Oti	Kadjebi	76 194	-	6 880	-
Oti	Krachi East Municipal	113 773	5 782	20 276	116
Oti	Krachi Nchumuru	82 350	2 869	9 819	57
Oti	Krachi West	62 976	-	12 275	-
Oti	Nkwanta North	129 907	34 556	21 528	691
Oti	Nkwanta South Municipal	140 045	30 636	29 389	613
Savannah	Bole	123 091	30 099	1 894	1 204
Savannah	Central Gonja	151 750	55 260	28 451	2 763
Savannah	East Gonja Municipal	125 169	18 328	18 309	-
Savannah	North East Gonja	41 885	3 518	17 970	70
Savannah	North Gonja	65 300	13 696	27 926	2 054
Savannah	Sawla-Tuna-Kalba	119 757	35 842	1 862	2 151
Savannah	West Gonja	67 444	24 088	512	964
Upper East	Bawku Municipal	124 284	-	8 181	-
Upper East	Bawku West	150 014	-	10 854	-
Upper East	Binduri	79 777	-	16 548	-
Upper East	Bolga East	40 392	-	-	-
Upper East	Bolgatanga Municipal	145 515	-	-	-
Upper East	Bongo	125 112	-	19 619	-
Upper East	Builsa North	58 856	-	21	-
Upper East	Builsa South	38 053	66	4 740	7
Upper East	Garu	74 674	2 092	13 225	105
Upper East	Kasena Nankana East	103 931	-	2 187	-

Upper East	Kasena Nankana West	94 401	-	10 634	-
Upper East	Nabdam	53 956	-	138	-
Upper East	Pusiga	83 787	-	23 834	-
Upper East	Talensi	90 537	-	2 224	-
Upper East	Tempane	90 508	-	4 237	-
Upper West	Daffiama Bussie Issa	40 557	19 658	2 131	393
Upper West	Jirapa	95 526	21 123	9 263	422
Upper West	Lambussie-Karni	53 496	-	7 869	-
Upper West	Lawra	61 152	8 544	5 136	1 196
Upper West	Nadowli-Kaleo	80 642	38 111	-	-
Upper West	Nandom	53 716	156	17 758	-
Upper West	Sissala East	84 370	1 900	32 303	57
Upper West	Sissala West	66 798	-	15 524	-
Upper West	Wa East	95 712	30 143	35 269	6 330
Upper West	Wa Municipal	210 009	8 986	103	539
Upper West	Wa West	101 468	38 994	19 427	1 950
Volta	Adaklu	39 504	-	107	-
Volta	Afadzato South	74 764	-	8 129	-
Volta	Agotime Ziope	40 428	-	616	-
Volta	Akatsi North	33 261	-	-	-
Volta	Akatsi South	94 540	-	-	-
Volta	Anloga	96 994	-	-	-
Volta	Central Tongu	85 657	-	-	-
Volta	Ho Municipal	184 411	-	533	-
Volta	Ho West	84 720	-	8 371	-
Volta	Hohoe Municipal	117 004	-	1 338	-
Volta	Keta Municipal	80 607	-	-	-
Volta	Ketu North	117 387	-	-	-
Volta	Ketu South	258 721	-	-	-
Volta	Kpando Municipal	59 847	-	251	-

Volta	North Dayi	40 137	-	651	-
Volta	North Tongu	113 344	-	-	-
Volta	South Dayi	58 799	-	-	-
Volta	South Tongu	115 616	-	-	-
Western	Ahanta West Municipal	159 327	-	-	-
Western	Effia Kwesimintsim Municipal	181 004	-	-	-
Western	Ellembelle	125 777	-	3 179	-
Western	Jomoro	131 690	-	1 089	-
Western	Mpohor	54 593	-	56	-
Western	Nzema East	98 444	-	193	-
Western	Prestea/Huni Valley	238 565	-	8 223	-
Western	Sekondi Takoradi Metropolis	109 072	-	-	-
Western	Shama	121 960	-	-	-
Western	Tarkwa Nsuaem	227 498	-	358	-
Western	Wassa Amenfi Central	123 929	-	7 587	-
Western	Wassa Amenfi East	186 956	-	4 204	-
Western	Wassa Amenfi West	135 129	-	5 360	-
Western	Wassa East	103 667	-	62	-
Western North	Aowin	134 962	1 773	21 026	18
Western North	Bia East	55 217	5 030	21 266	50
Western North	Bia West	120 563	5 386	30 323	54
Western North	Bibiani-Anhwiaso-Bekwai Municipal	174 757	-	16 832	-
Western North	Bodi	68 404	18 429	8 128	184
Western North	Juaboso	92 402	11 587	3 829	116
Western North	Sefwi Akontombra	73 062	785	17 765	8
Western North	Sefwi-Wiawso	157 329	1 693	21 132	17
Western North	Suaman	39 814	7 191	3 889	72

GHANA

Rapid assessment of priority areas impacted by dry spell and district-level intervention priorities

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