
EARLY WARNING BULLETIN FOR FOOD SECURITY

No. 2024/15

IN THE GAMBIA

Period: September 21 – 30, 2024



Produced and Published by the Multidisciplinary
Working Group of The Gambia
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1.0 PROGRESS OF THE RAINY SEASON

1.1 Synoptic Situation

The mean surface position of the Inter-Tropical Discontinuity (ITD), a boundary layer that separates the dry North-Easterly Trade winds from the moist South Westerlies is still fluctuating on its northward maximum limit position during the dekad with its western axis lying over central Mauritania, stretching across northern Mali, central Niger and then slopping onto central Chad.

Places to the north of the ITD were characterised by dry, stable and dusty atmospheric conditions observed over the northern parts of Morocco, Algeria and central Libya. Meanwhile, places to the south of the ITD experienced convective activities resulting to rains and thunderstorms, occasionally associated with strong winds.

1.2 Weather Outlook for the next Dekad (1st - 10th October 2024)

The next dekad is expected to experience slight to moderate rain showers and thunderstorms, which may be occasionally heavy with strong winds across the country. However, the rainfall frequency and intensity are most likely going to reduce with mainly slight to moderate and isolated cases in nature. The expected rainy days are: 01st, 03rd - 04th and 07th - 09th October 2024.

1.3 Rainfall Situation

During this dekad, the rainfall situation in the country significantly improved with torrential downpours registered, that caused extensive damage to both crops and infrastructure through massive flooding. End-of-dekad totals ranged from 53mm over Kaur to 250mm recorded over Jenoi, both in the middle third of the country. In the western third dekad totals ranged between 91mm over Kerewan to 188mm over Banjul. Elsewhere in the eastern third, dekad totals were 177.2mm over Fatoto and 205.8mm over Basse (figure 1a).

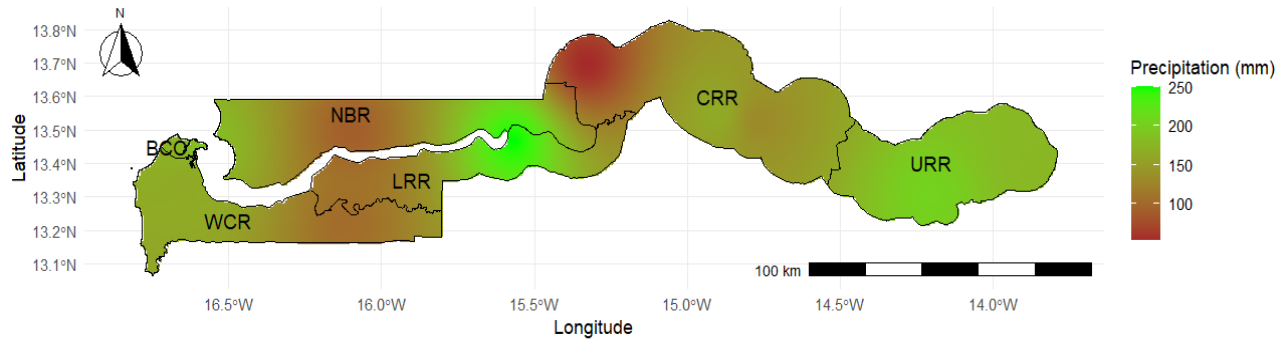


Figure 1a: Dekadal rainfall totals from 21st - 30 September 2024

The seasonal rainfall totals have also increased significantly across all the regions in the country, ranging from 640mm over Kerewan (lowest countrywide) to above 1000mm over Sapu (highest in the country) figure 1b. This recorded seasonal cumulative totals in in line with the JAS 2024 seasonal forecast that indicated above normal figures across the country.

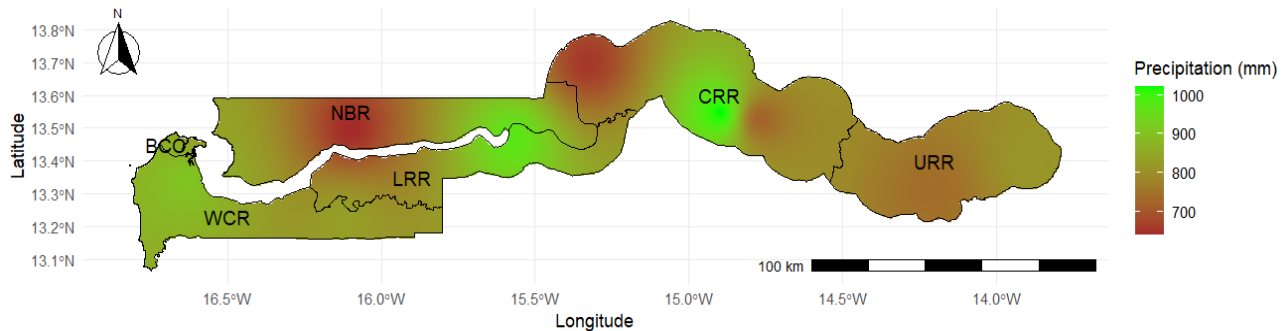


Figure 1b: Seasonal rainfall totals 1st May - 30 September 2024.

In comparison, this year's country average (May 1 - September 30, 2024) rainfall, stood at **814mm**, which is **5%** below last year's same period (**864mm**), and **2%** below the long-term country average (**1991_2020**), which is 834mm.

2.0 AGROMETEOROLOGICAL SITUATION

Average temperatures recorded during this dekad were between 27°C and 28°C across the country. Extreme temperatures reached a minimum of 21°C recorded in the western third of the country, whereas maximum temperatures peaked to 34.9°C over Jenoi in the middle third of the country.

Relative humidity still remained high, 80% on average throughout the country, whilst average Sunshine increased to 6 hours during the dekad.

Winds were low occasionally moderate in speed, with a maximum gust of around **70km/h** recorded in the western third of the country.

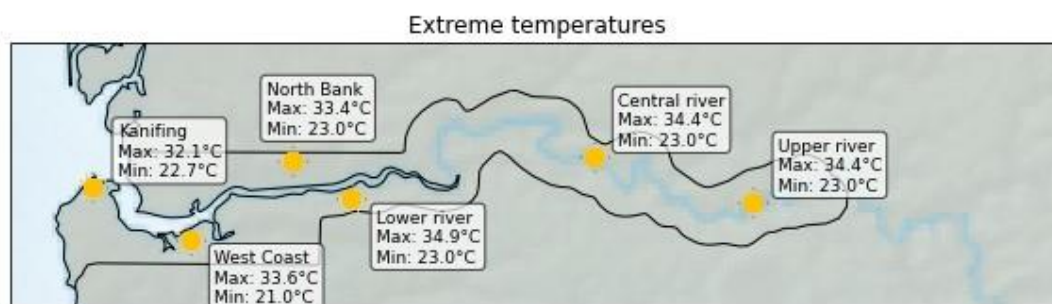


Figure 2: Extreme temperatures during the dekad (21 - 30 September 2024)

3.0 AGRICULTURAL SITUATION

3.1 General crop situation

The overall crop performance in terms of growth and development is progressing satisfactorily across the country. However, due to uneven rainfall distribution at the beginning of the season, the phenological phases of crops varies from region to region across the country. Some farmers started harvesting maize and groundnut to secure good price as early harvest attracts good price from the market. However, the groundnuts harvested and taken to the market are not fully matured. Meanwhile, according to all Regional Agricultural Directorates (RADs) in the country, the area put to production this year for early millet, maize and rice has increased as compared to last year, this is mainly due to the input support received from Agricultural Projects at the start of the cropping season and subsidized fertilizer to farmers.

3.1.1 North Bank Region

Crops in this region are performing well. According to the Regional Agricultural Directorate the area of production for groundnut, maize and rice has increased compared to last year, due to inputs support received from Projects at the beginning of the cropping season.

Early planted groundnut fields are now at pods formation whilst the late planted ones are at pegging stage. Maize fields are at phenological phases of maturity, and some farmers have start harvesting their maize for sale to attract good price in the market. The late planted maize fields are at tasseling stages. Early millet fields that were planted early are at maturity stages and late planted ones are at booting

stage. In the lowland, rice fields are at vegetative stage, whilst the upland rice are at their productive stage.

Despite the support given to the farmers in the form of seeds and fertilizers, they mentioned inadequately tractors, power tillers and draft animals as serious constraints to start timely production.

As the rains are forecasted to continue during the month of October, farmers are advised to use proper harvesting, drying and storage techniques to reduce post-harvest losses in cereal and groundnut crops.



Figure 3a: Matured early millet field in Daru Rilwan.



Figure 3b: Watermelon field at Kerewan, NBR.

3.1.2 Central River Region - North

In the Central River Region-North, the crops performance is impressive, but crop phases also vary due to the dry spell experienced in June and July this year.

Most maize fields are at maturity stages and farmers have started harvesting the crop to attract good price in the market. The late planted maize fields are at tasseling and some still at vegetative stage. Groundnut fields ranged from pod formation to pegging stages across the region. However, there are some farmers who do not sow all their groundnut seeds due to the dry spell at the beginning of the season. Early planted millet fields are at maturity stage while the late planted fields are at booting stages.

In the lowlands, the farmers are still transplanting. This delay could be attributed to the late start of rainy season production due to inadequate farm implements such as power tillers and tractors. The main agricultural activity in the lowland is transplanting of rice, and some farmers are picking grasses on their groundnut fields to make harvesting easy.



Figure 4: Newly transplanted lowland rice field in Barajaly.

3.1.3 Central River Region - South

As in the other regions, the agricultural situation in this region is promising despite with varied phenological phases due to the uneven rainfall distribution at the start of the season. Farmers with farm implements were able to plant earlier than those without farming implements.

Maize fields planted early are at maturity stages, while the late planted fields are at vegetative stages. Early millet fields are at stages ranging from booting to maturity, and a few farmers have started harvesting the crop. In the lowland fields, some farmers are still transplanting rice. In the upland, rice are at reproductive stages.

The message to farmers by extension officers is proper harvesting and drying techniques to reduce post-harvest losses as the rains are still on.



Figure 5: Harvesting of early millet in Mali Kunda

3.1.4 Upper River Region

In this region, the crops are performing well according to the Region Agricultural Directorate and the farmers we interviewed, despite the dry spells at the start of the rainfall season.

The early planted maize fields are at maturity while the late planted ones are at tasseling stages. Early planted late millet fields are at reproductive stages and the late planted ones are booting. The early planted groundnut fields are at pods formation while the late planted ones are at pegging stage. Sorghum, which is wildly grown in this region is still at reproductive stages. Low land rice fields are at vegetative stages while in the upland the rice is at reproductive and others are at vegetative stages.

On **September 25th** a heavy downpour in the region flooded over 9.5 ha of lowland rice fields that could result to a big losses to the farmers.



Figure 6a: Flooded rice field in Sutukoba, Wulli West



Figure 6b: late millet field at reproductive stage in Fatoto

3.1.5 Lower River Region

The field crops in this region are performing well. Like in other regions, early planted maize fields are at maturity stages and some farmers have started harvesting and selling to attracted good price at the markets. The late planted ones are at tasseling stage. Early millet fields planted earlier are at maturity stage while the late planted ones are at boating stage. Groundnut fields are at pegging and pods formation stages. In the lowland areas some farmers are still transplanting while in the upland most of the fields are at booting stages.

Most of the early millet fields are matured and due for harvesting even though the rains are still expected to continue until October. The advice given to farmers by the extension officers is that when they harvest let them take their produces home and dry them in an open place where the rains will not touch them, to reduce post-harvest losses. Watermelon production is in progress, whereas harvesting of cowpea is at an advance stage.

Farmers are seeking support to be provided with draft animals and farming implements for timely farming operations. Farmers are expecting a bumper harvest as highlighted by the regional Agriculture Directorate and those farmers interviewed.



Figure 7a: Groundnut field at Madina Kaiaf



Figure 7b: Farmer taking rice seedling for transplanting

3.1.6 West Coast Region

In the West Coast Region, the agricultural situation is almost the same as other regions. The upland rice fields are at maturity stage, and in the lowland, most of the fields are at booting stage.

Early planted maize fields are at maturity stage, and some have started harvesting to attract good price at the market. Whereas late planted field are at cob formation or vegetative stage. The early millet fields are at maturity stage, and some farmers have started harvesting the crop in Foni Bondali, while the late plated ones are at tasseling stages.

Groundnut fields are at pod formation and some farmers have started harvesting to attract good price at the market but the groundnuts are not fully matured yet. Late planted groundnut fields are at pegging stage. Some women farmers are still cultivating sweet potatoes while most men focus their attention to growing watermelon.

The message from Agricultural extension workers to farmers is for the farmers to practice harvesting, drying and storage techniques to reduced post-harvest loses.



Figure 8a: Upland rice at maturity stage in WCR



Figure 8b: Matured maize field at Nyantempo Village

3.2 Pests and diseases situation

3.2.1. Percentage Plant Infestation and Number of Fall Army Worms (FAW) in The Different Regions

The level of infestation and number of Fall Army Worms (FAW) per plant varies across the six regions, with the highest percentage of plant infestation observed in CRR south (53.5%), followed by URR (41.5%). The lowest infestation was seen in CRR North (28%) and NBR (34%). Despite differences in plant infestation percentages, most regions show an average of 1 FAW per plant with only slight variations in CRR south with 1.5 FAWs and URR and WCR with 1.25 FAWs. This indicates the considerable well-established FAWs across all regions with infestation levels varying but consistently posing a threat to agricultural production (see figure 9). In each of the sampled farms, the percentage of plants infested by FAWs is monitored through a sample of 50 plants throughout the fields. A plant is characterized as infested if one or more FAWs are detected in the plant or if there are signs of damage by FAWs. The widespread infestation and stable FAW population density highlight the need for continued surveillance and more effective pest management strategies. Even regions with moderate infestation rates cannot afford to be complacent, as the rapid reproduction and spread of FAW could lead to more severe outbreaks if left unchecked.

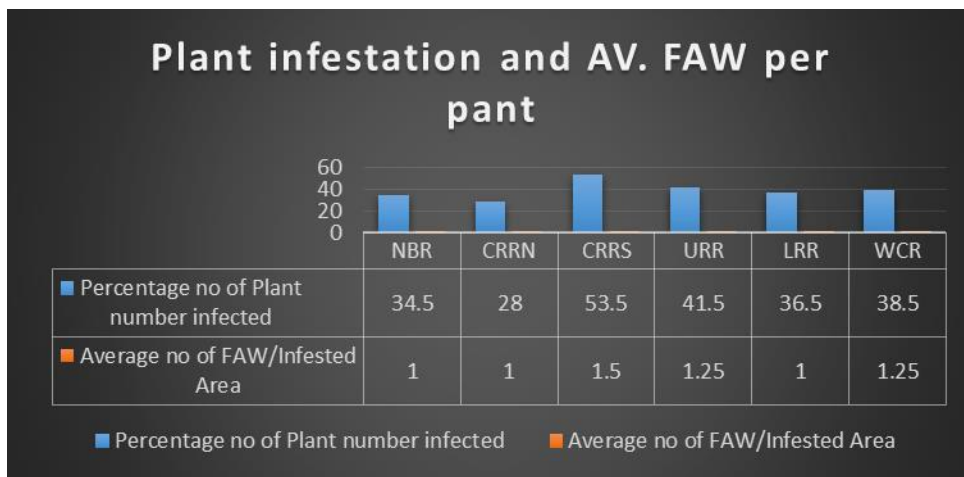


Figure 9: Average percentage of plants infested and FAW per plant

The data on FAW damage as shown in (figure 10) indicates that there is significant variance across farms, with a spectrum of infestation severity present in every region. While many farms experience only minor or localized damage, the existence of whole-farm infestations, particularly in regions like CRR South and LRR, highlights the need for more robust FAW management practices.

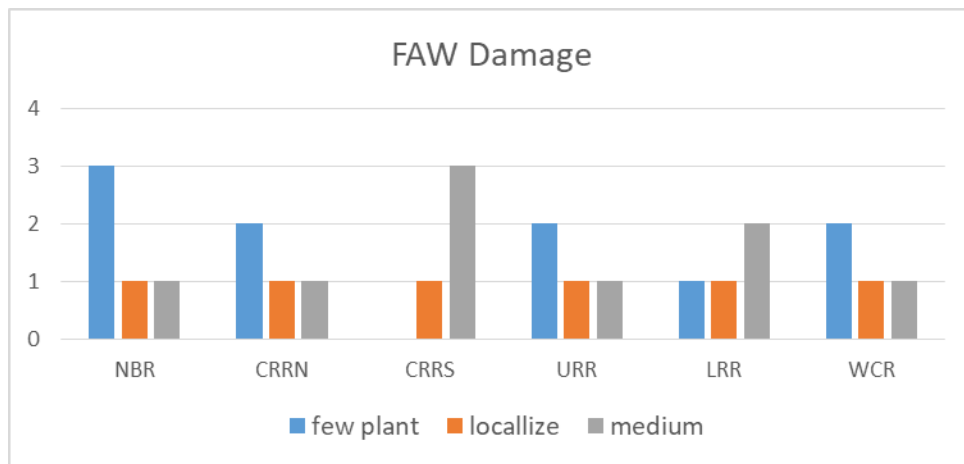


Figure 10: FAW damage levels according to region.

The data shows that FAW infestation levels vary significantly across regions, with farms distributed across low, medium, and high categories. CRR-South stands out as the most affected region, with several farms experiencing high infestation, indicating a need for urgent intervention. Regions like URR and LRR show a more balanced distribution of farms across all three categories (low, medium, and high infestation), indicating that the pest's impact varies within these regions. On the other hand, regions like NBR and CRR-North have more farms with low infestation, suggesting fewer pest outbreaks (see figure 11).

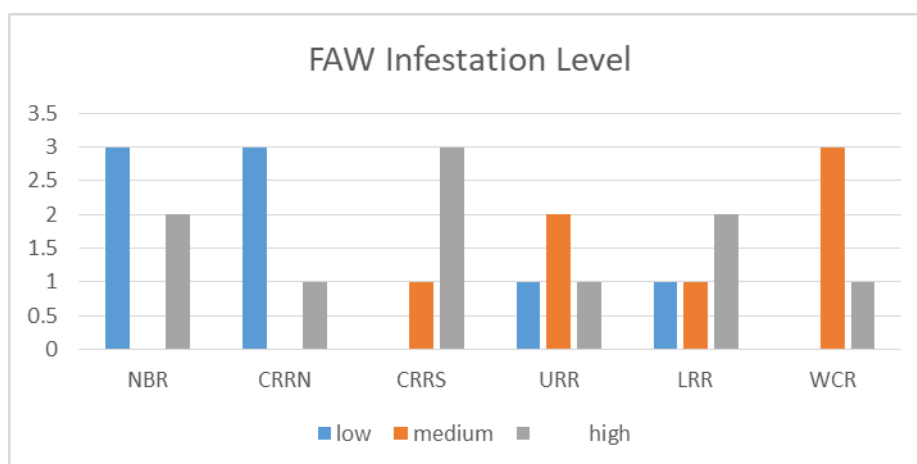


Figure 11: FAW infestation levels according to region.

The data reflects varying levels of FAW damage severity, ranging from low to high. The distribution of farms across these categories indicates the intensity of FAW damage and the overall risk to crops in different regions. These severity levels ranged from high (31-50 infested plants), medium (16-30 infested plants), low (1-15% infested plants).

The data shows that CRR-South has the highest number of farms experiencing high-severity damage. This, coupled with the absence of low-severity farms, indicates that FAW is causing widespread destruction in the region, figure 12 below. Similarly, NBR has a significant number of farms reporting high-severity damage, highlighting the need for stronger pest management efforts in these regions. Balanced Severity is shown in LRR and URR. Both regions display a more balanced distribution across low, medium, and high severity levels, suggesting a varied impact of FAW in these regions. While some farms manage to keep the damage under control, others are facing more severe infestations that could escalate if not addressed. The majority of farms in CRR North are experiencing low severity damage, with only one farm reporting high-severity FAW impact. This suggests that FAW management practices may be more effective in this region, or that environmental factors are limiting the spread of the pest. Similarly, WCR shows mostly low and medium severity, indicating that the region is not facing critical FAW damage yet.

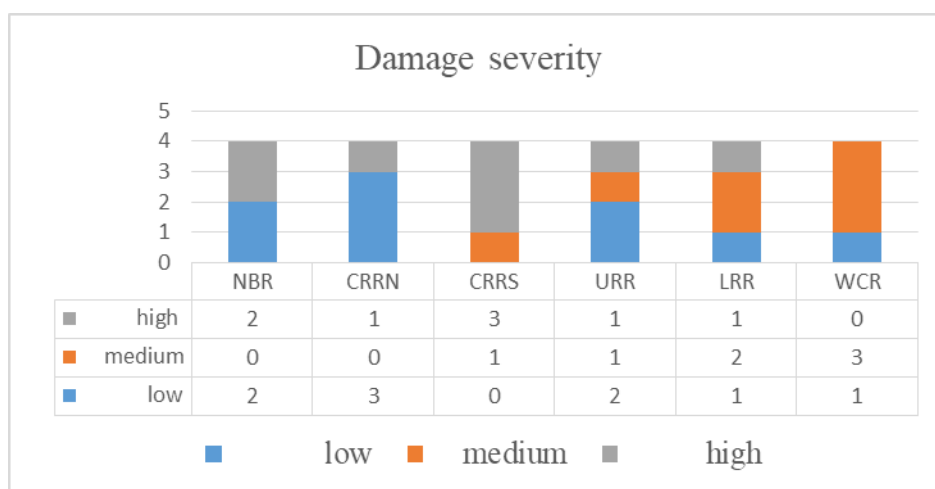


Figure 12: Damage severity of infestation in the sampled farms

The presence of egg Mass is relatively low across all regions, with only CRR-North showing any detection of egg masses, 1 farm (see figure 13). This suggests that active reproduction of FAW was either minimal or undetected in most regions during the survey period. NBR, URR, LRR, and WCR all reported no visibility of egg masses during the time of survey, which could suggest that FAW reproduction activity was low during the observation period, or that egg masses were difficult to detect. The adult FAW was seen in CRR-South and WCR reporting the highest presence of adult moths with 2 farms each and CRR-North with 1 farm.

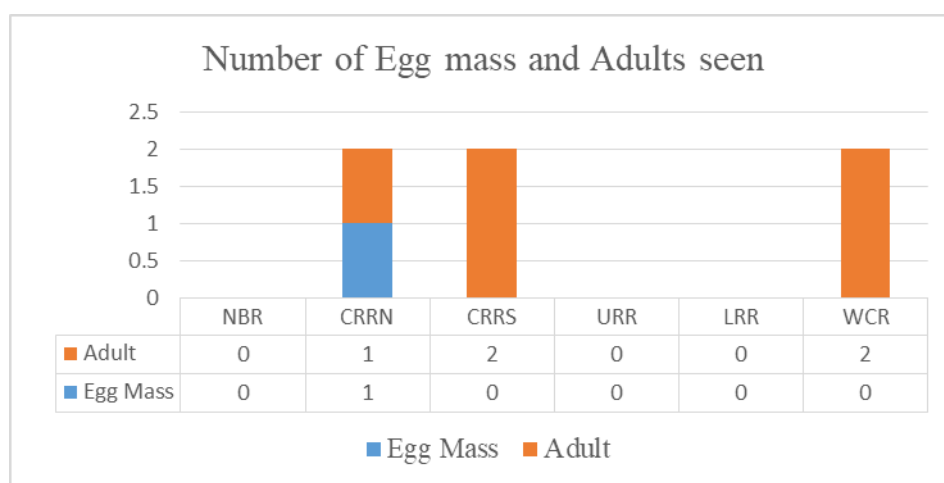


Figure 13: Egg mass and adult moth found in sample farms

Cropping system

The nationwide surveillance revealed that the majority of the sampled farms across all regions practiced mono cropping systems, particularly maize which is highly susceptible to FAW infestation.

Regions such as CRR-S, URR and CRR-N had a few farms practicing mixed cropping systems, where different crops such as sorghum and Cowpea are planted together with maize.

Stage of crop

The stage of crop growth at the time of Fall Armyworm infestation significantly influences the extent of damage and the potential yield loss. The sampled crops across all selected farms in all the regions are currently in different stages, ranging from flowering to vegetative to maturity.

3.3 LIVESTOCK SITUATION

Generally, the livestock situation has significantly improved in terms of available grasses for animal feed and water drinking points has also increased as a result of improved rainfall quantity in the country. However, a few incidents of pests and disease on livestock have been reported during the period.

Currently, *ectoparasites* (such as *ticks, tsetseflies and maggots*) are mostly affecting livestock. This often result in for example, wound conditions, loss of weight, decrease in milk yield etc. During the period a disease outbreak happened at Njau - Upper Saloum. This have resulted in the death of 13 heads of cattle (6 males and 7 females). The outbreak investigation following blood and faeces samples collection revealed two diseases called *Theileriosis and Anaplasmosis* that were the major cause of cattle mortality. These are disease transmitted by ticks affecting all animals that cause significant economic losses to animal producers and other actors that depend on livestock for their livelihood.

Observed improvement

Forages (grasses for livestock consumption) is much better in terms of availability compared to dry season period and make most of the livestock species got increase body weight (approximately 10 to 15%.) Milk production have slightly increase relatively from 0.68 to 1.5 liters per milking cow. Access to water have also increase due to the presence of rainwater accumulating in pot holes, ponds and valleys.

Challenges observed include:

- ✓ Inadequate hygienic or quality water has to do with less watering facilities such as borehole water.

- ✓ Reduction (terms of size) in grazing areas that is rangeland and cattle tracks/stock route mainly due to crop land expansion.
- ✓ Overgrazing of meager forage resources (grasses and legume species) due early consumption by animal before the grasses are mature enough to withstand grazing pressure.
- ✓ Inedible and unpalatable grasses and forbs overcoming grazing areas resulting in less access to quality forage to livestock.

Banjul, October 3, 2024
National MWG of The Gambia

<p>Composition of MWG:</p> <ul style="list-style-type: none"> Department of Water Resources (DWR) – Focal Point Department of Planning - MOA Department of Agriculture (DOA) Department of Livestock Services (DLS) Plant Protection Services - DOA National Disaster Management Agency (NDMA) 	<p>Direct your comments and questions to:</p> <ul style="list-style-type: none"> The Director Department of Water Resources 7 Marina Parade, Banjul The Gambia Tel: (+ 220) 422 76 31 / 998 38 45 Email: touraylm@yahoo.co.uk
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Acknowledge support from Ministry of Environment Climate Change and Natural Resources and World Food Programme The Gambia Country Office funded by the Adaptation Fund Project- RICAR