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# EARLY WARNING BULLETIN FOR FOOD SECURITY

No. 2017/12

## IN THE GAMBIA

Period: August 21-31, 2017

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Government of The Gambia

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Multidisciplinary Working Group

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## 1.0 METEOROLOGICAL SITUATION

### 1.1. SYNOPTIC SITUATION:

The average surface position of the ITD, a boundary layer that separates the north-easterly winds from the Monsoon flow has its western axis fluctuating over southern Mauritania, northern Mali, central Niger and sloping onto Chad.

The places to the north of the ITD were characterised by dry and stable atmosphere, with occurrence of dust haze reported over southern positions of Morocco, Algeria and Libya.

Places to the south of the ITD were characterised by generating instability which resulted to rain showers and thunderstorms, occasionally associated with strong winds.

### 1.2. WEATHER SUMMARY FOR THE GAMBIA

The atmosphere was generally humid with enhanced convections. Torrential rain associated with strong winds affected the entire country on the 26<sup>th</sup> August 2017.

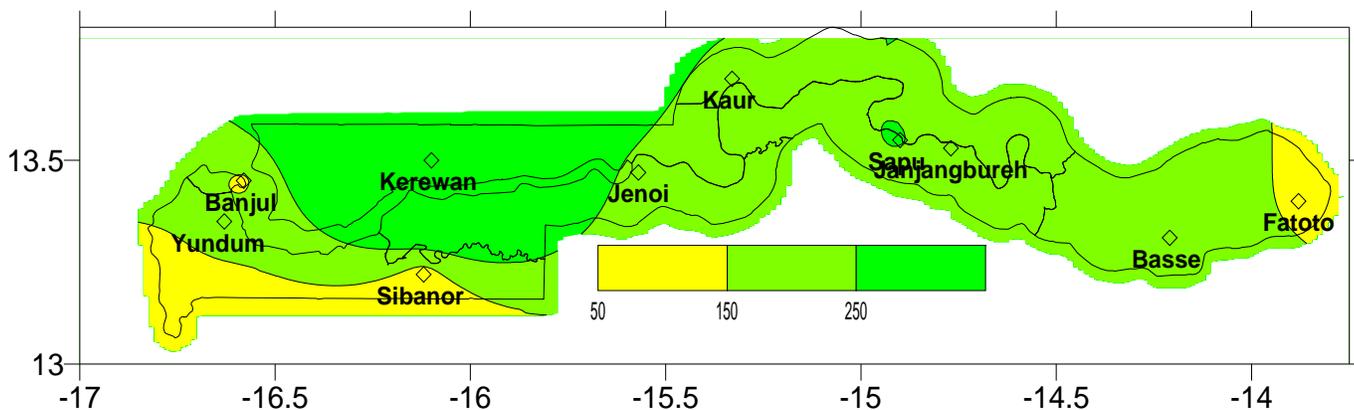
### 1.3. OUTLOOK FOR THE NEXT DEKAD (1<sup>st</sup> – 10<sup>th</sup> August 2017)

The atmosphere will remain humid with warm conditions during the day. Rain showers and thunderstorms, occasionally accompanying by strong winds will be expected especially on the 08<sup>th</sup> September 2017.

## 2.0 AGROMETEOROLOGICAL SITUATION

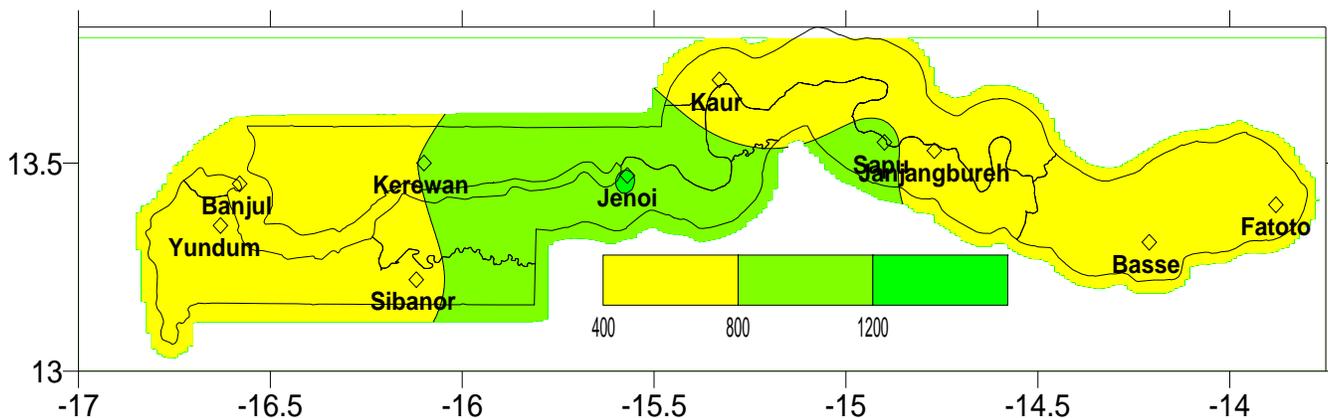
### 2.1 RAINFALL SITUATION

The rainfall situation in this dekad improved significantly over the entire country. The highest decadal total of 259.4 mm was recorded over Sapu in the Middle Third; in the Eastern Third, Basse recorded the highest of 231.6mm, whereas in the Western Third, Yundum recorded the highest decadal amount of 180.8mm, (Figure 1a).



**Figure 1a: Rainfall dekadal totals 21<sup>st</sup> – 31<sup>st</sup> August 2017.**

Seasonal rainfall totals also increased significantly throughout the country although there are variations. The highest seasonal cumulative rainfall total is recorded over **Jenoi (1226.5)** in the Middle Third. In the eastern part, **Basse** recorded cumulative seasonal total of more than **700 mm**, whilst in the Western Third, Kerewan recorded the highest amount of **812.6mm**. However, the lowest seasonal rainfall total recorded so far is over (**436.6mm**) over **Banjul** in the Western Third, figure 1b.



**Figure 1b: Rainfall Seasonal totals from May 1<sup>st</sup> 2017– August 31<sup>st</sup> 2017.**

In comparisons, the country average as at 31<sup>st</sup> August 2016 stood at **820.7mm** which is **49%** above last year’s amount (**549.9mm**) and **44%** above the long term mean (30 year period) of (**569.9mm**).

**Table1: Daily highest rainfall figures per Station during the dekad (21<sup>st</sup> – 31<sup>st</sup> August 2017)**

<b>STATION</b>	<b>RAINFALL (Millimeters)</b>	<b>DATE RECORDED</b>
Yundum Airport	55.3,87.3	22/08/2017/26/09/2017
Sibanor	35.0	21/08/2017
Jenoi	119.1	26/08/2017
Banjul	46.0	18/08/2017
Kerewan	42.5	22/08/2017
Kaur	71.0, 71.6	22/08/2017/ 26/08/2017
Janjanbureh	55.3	27/08/2016
Sapu	82.0	23/08/2017
Basse	70.8, 60.6	22/08/2017/27/08/2017
Fatoto	31.5	27/08/2017

Table1 shows some events of heavy precipitation recorded across the country with Jenoi recording the heaviest of 119.1mm per day, Kaur recording up to 70mm twice during the same dekad and Sapu recording 182mm. The consequences of such heavy events are flash floods, flooding and submerging of rice fields, erosions of roads and side roads and deposition of sand in lowlands areas. It also leads to structural damages affecting almost all the country.

## **2.2 Temperature**

Average temperatures across the country varied between 29°C and 30°C. Recorded minimum temperature reached 22°C over the Western Third, whilst maximum temperature reached 34°C also recorded over the Western Third.

## **2.3 Winds**

Winds were light, moderate to very strong with maximum gusts of 63km/h over the entire country resulting to structural damages in most parts of the country.

## **2.4 Sunshine Duration**

Sunshine duration on average was between 5 to 7 hours throughout the country.

## **2.5 Relative Humidity**

Average relative humidity recorded during the dekad was over 650% countrywide.

## **3.0 Hydrological Situation**

N/A

## 4.0 AGRICULTURAL SITUATION

### West Coast Region

The main agricultural activity in this region is weeding and bird scaring in early millet fields. Some few maize crops are at maturity while rice is at panicle initiation.

### North Bank Region

In this region some farmers are transplanting rice in the lowland, others are busy on land preparation for water melon. Early millet is at reproductive, Maize and cowpea are being harvested by some farmers particularly in Faas Chakho.

### Lower River Region

Agricultural activities in this region involve second weeding and rice transplanting in the lowlands. Most crops are at maturity (late millet maize and cowpea are at flowering stages while groundnut is at flowering and pegging).

### Central River Region North

N/A

### Central River Region South

N/A

### Upper River Region

N/A

## 4.1 CROP PROTECTION

During the reporting period an Alien Invasive Species (an insect) called Fall Army Worm (FAW) *Spodoptera frugiperda* was discovered during a preliminary survey within the country. The pest which is a Lepidopteran is the larvae of a moth that originated from the USA. The larva is the damaging stage.

### The larva has the following characteristics:

- ✓ Half-grown or fully grown caterpillars are the easiest to identify
- ✓ The head is dark and shows characteristic inverted Y on the front (red circles)
- ✓ Four dark spots forming a square on the second to last segment (blue circles)
- ✓ Each of the other body segments also has four spots, but they do not form a square pattern (yellow circles)

### Characteristic Damage Symptoms on Maize

- Windowing panning
- Ragged torn leaves
- Destruction of unfurled leaves in funnel
- Tassel damage
- Holed ears

Leave damage is usually characterized by ragged feeding and moist sawdust-like frass near the funnel and upper leaves.

Deep feeding in the leaf funnel may destroy the entire tassel.

Caterpillars tend to enter through the side of the ear and feed on developing kernels.. This is in contrast with stem caterpillars that normally enter the ear from the top or the bottom.

### Control

- Avoid late planting to avoid peak immigration period of adults
- Remove and destroy all crop residues after harvest
- Monitoring for presence of the pest symptoms from 2-3 weeks after planting
- Look for egg masses ( creamy or grey color) on the underside of the leaves
- Check for light green to dark brown larvae with 3 thin yellow stripes down the back
- Monitor damage on 10 consecutive plants in 10 randomly selected sites. Take control measures if 20% of plants are infested with larvae
- Deep plough to bury larvae and pupae
- Weed regularly
- Maintain high soil fertility and apply recommended fertilizer rates to ensure high plant vigour.
- Control by manually hand picking caterpillars and killing them as well as destroying egg masses
- Apply a handful of sand, mixture of lime and ash, sawdust or soil in the whorl of the attacked plants to kill the larvae

Efforts undertaken so far to control the Fall Army Worm

#### 1.0 Update on FAW

A one-day national sensitization meeting was organized to inform all stakeholders on the presences of the armyworm in the country.

#### 1.1 RAD CRRN, NBR and Urban Agriculture

The regional directors took turns to brief the meeting on current status or reported cases of the FAW in their regions. The Regional Agricultural Directors for CRR/N, WCR, NBR, and UA cited that after being sensitized on FAW, so far no infestation was reported.

#### 1.2 Results of the Preliminary survey on Fall Armyworm by Pest Management Program/NARI

Name	Pest problem	Crop	Village	District	Region
Samel Sarr	Fall armyworm	Maize	Jarreng	Niamina East	CRRS
Musa Njie	Fall armyworm	Maize	Ballanghar Choya	Lower Saloum	CRRN
Lamin Sawaneh	Fall armyworm	Maize	Jalambereh	Jarra Central	LRR
Lamin Dampha	Fall armyworm	Maize	Darsilameh	Jokadou	NBR

#### 1.3 The Position of FAO on the Fight against FAW

Dr. Mustapha Ceesay from FAO Gambia presented three interesting documentaries on the evolution of FAW in Africa. It was shown on the audio visual how devastating the FAW can be within a short period of time rendering a farmer zero harvest. He also elaborated on the mandate bestowed on FAO to coordinate the regional efforts to jointly control the pest.

#### 1.4 Update on the On-going Activities of the Plant Protection Services on the Fall Armyworm

The PPS in collaboration with the DOA and the Pest Management Programme of NARI conducted a meeting for the national preparedness plan.

The Gambia was represented in ECOWAS “**Regional Plant Pest and Disease Prevention, Surveillance and Mitigation Framework**” on 6-7 June, 2017 in Accra, Ghana.

As part of the on-going efforts, PPS got support from the **Building Resilience against Food and Nutrition Insecurity in the Sahel (P2RS) Project** through the DOA to conduct a nationwide scouting and sensitisation mission.

In line, PPS developed Fact sheets on Identification, Damage symptoms, the life cycle and Control of the FAW and also a questionnaire for scouting.

Scouting and monitoring is still in progress in all the Agricultural Regions.

## 2.0 Results of the Preliminary Survey by Plant Protection Services

Date	Site	Crops	Pest	Remarks
04 <sup>th</sup> /07/2017	Chamen GSI Conteh Kunda Niggi	Maize, sorghum cassava chili pepper melon papaya shallot	Red spider mites, puciron (green coloured sucking insect), <b>Fall armyworm larvae in both sites</b>	The officials at Chamen GSI attest to seeing the pest since May 2017. Conteh Kunda Niggi on the other hand barely noticed the presence of the pest. The RAD has not received any report from the FAW infested sites but with this sensitization and detection officials said, efforts will be intensified to encourage vigilance amongst farmers and extension workers.
28 <sup>th</sup> /07/2017	Kunkujang keitaya	Maize	Fall armyworm	The farmer attests to not seeing such larvae and insect behaviour on maize for the past 15 years of production.

**Table 1.3: Geo-reference of infested sites**

Vegetable Scheme	GPS Coordinates
Gambia-Songhai Initiative	N13° 33.390 / W015° 40.424
Conteh Kunda Nigi	N13° 34.589 / W015° 47.096
Kunkujang Keitaya	N13°23.007 / W016° 40.042

## 3.0 Report on the Training of Trainers on FAW

### **A training was organized with the aim of :**

- ✚ To enhance the capacity and understanding of the Extension workers about the Fall Army Worm
- ✚ To equip participants with the requisite knowledge to be able to embark on rapid monitoring and surveillance on the Fall Armyworms in all the 7 Agriculture regions.
- ✚ To enable the National Taskforce to effectively and most accurately inform the Government of the Republic of the Gambia about the country situation on Fall Army Worm.

### **THE NATIVE ARMYWORM *Spodoptera exempta***

This pest which is a native one was reported during the period in West Coast Region of the Gambia around Pirang Faraba Banta and Kafuta. It is as well a lepidopteran caterpillar but unlike the FAW, they move in large numbers feeding on foliage normally during a dry spell. Normally heavy downpour of rain can control them.

## THE HAIRY CATERPILLAR

These pests have been reported In Upper Niumi and Sanjal districts in North Bank Region. They are native pest but a devastating in maize and other cereals.sss

## 4.2 LIVESTOCK

The Livestock situation in the Country has improved as most of the grazing fields are now green with succulent grasses and shrubs. This will provide Livestock access to adequate feeds which is key for the enhancement of Livestock production and productivity. The current projections are that clinical cases are expected to decline particularly in URR and CRRS and animal productivity increased due to the abundance of feed and drop in the infective capacity of disease vectors. In view of that, clinical figures as of August 31<sup>st</sup>, 2017 are as follows. CRRS 82 heads of cattle, 103 Sheep 126 goats, 19 donkeys and 42 horses. In CRRN 112 heads of cattle 134 sheep 97 goats, 16 donkeys and 51 horses. LRR 151 heads of cattle, 87 Sheep, 108 goats, 43 donkeys and 28 horses. NBR 172 cattle, 164 Sheep, 145 goats, 32 donkeys and 61 horses. URR 194 heads of cattle, 169 Sheep, 179 goats 47 donkeys and 29 horses. WCR 241 heads of cattle 138 Sheep 174 goats 37 donkeys and 51 horses.

Banjul 02<sup>nd</sup> September 2017

National MWG of The Gambia

<b>Composition of MWG:</b> Department of Water Resources Planning Services - Department of Agriculture (DOA) Communication, Extension & Education Services - DOA Department of Livestock Services Plant Protection Services - DOA National Environment Agency	<b>Direct your comments and questions to:</b> The Director Department of Water Resources 7 Marina Parade, Banjul The Gambia Tel: (+ 220) 422 76 31 / 422 41 22 / <b>890 52 29</b> Email: <a href="mailto:dwr@mofwrnam.gov.gm">dwr@mofwrnam.gov.gm</a>
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