



## **SEASONAL FORECAST FOR SEPTEMBER TO DECEMBER (SOND) 2023, N° 65**

The Rwanda Meteorology Agency (METEO RWANDA) is pleased to release the seasonal forecast for the September to December (SOND) rainfall season 2023. This forecast is based on extensive analysis of the atmospheric and oceanic conditions, and it provides valuable information for the planning and decision-making purposes. September to December period is one of the main rainy seasons in Rwanda which is very important for the buildup benefits on socio-economic sectors. The National consensus on climate outlook for the September to December 2023 season indicates higher chances of normal to above normal conditions according to the global, regional and local climate factors influencing the seasonal rainfall pattern.

The key factors expected to influence rainfall occurrence during SOND 2023 season are the Sea Surface Temperature (SST) that are likely to be above the normal conditions over the coming months in equatorial Pacific Ocean reflecting a high probability of El Nino conditions and positive Indian Ocean Dipole (IOD). The positive IOD coupled with ENSO episodes are usually characterized by wetter than normal rainfall conditions over East Africa, including areas where Rwanda is located with stronger and widespread impacts.

The selected analogue years for SOND 2023 are 1997, 2002 and 2006.

**Different parts of the country expect to receive different amounts of rainfall as follows:**

### **Rainfall ranging 300 -400 millimeters**

The rainfall is expected in the north-eastern parts of Kirehe as well as small portion of the eastern parts of Kayanza Districts.

### **Rainfall ranging between 400-500 millimeters**

The rainfall is expected in Bugesera, Ngoma and most parts of Kayanza, Rwamagana, Gatsibo and Kirehe Districts, small portion of south eastern Nyagatare in Eastern Province, City of





Kigali over most parts of Nyarugenge, Kicukiro and eastern parts of Gasabo District, a small part of eastern Kamonyi, Ruhango, Nyanza and Gisagara Districts.

**Rainfall ranging between 500-600 millimeters**

The rainfall is expected in most parts of Nyagatare, Gicumbi, Rulindo, Gasabo, Kamonyi, Muhanga, Ruhango, Nyanza, Huye and Gisagara Districts. It is expected also in a small part of southern Gakenke District, western Kayonza and eastern Rwamagana Districts in the Eastern Province.

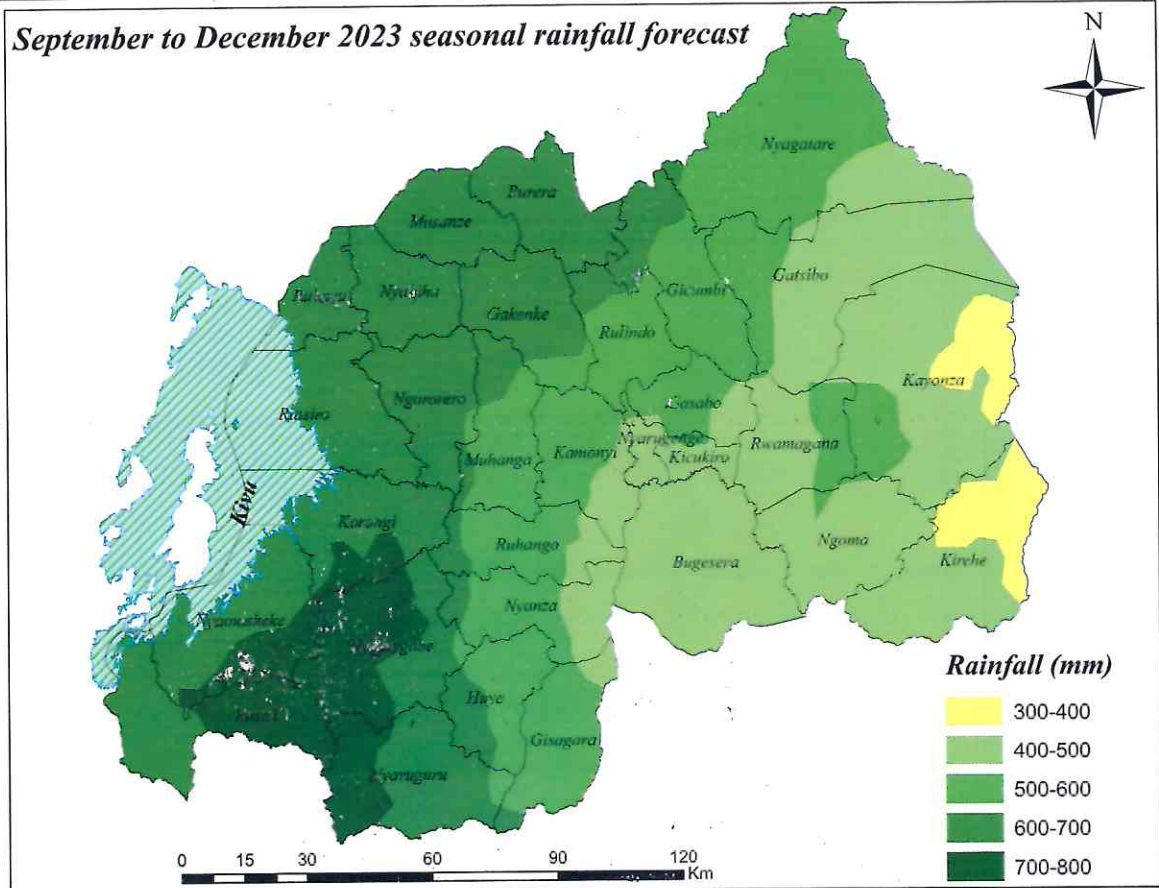
**Rainfall ranging between 600-700 millimeters**

The rainfall is expected in Rubavu, Nyabihu, Rutsiro, Ngororero and most parts of Karongi, western parts of Nyamasheke and Rusizi in the Western Province, Burera, Musanze and Gakenke and small parts of northern Rulindo and Gicumbi in the Northern Province, most parts of Nyaruguru and eastern Nyamagabe Districts, a small part of western Muhanga, Ruhango, Nyanza and Huye Districts in the Southern Province.

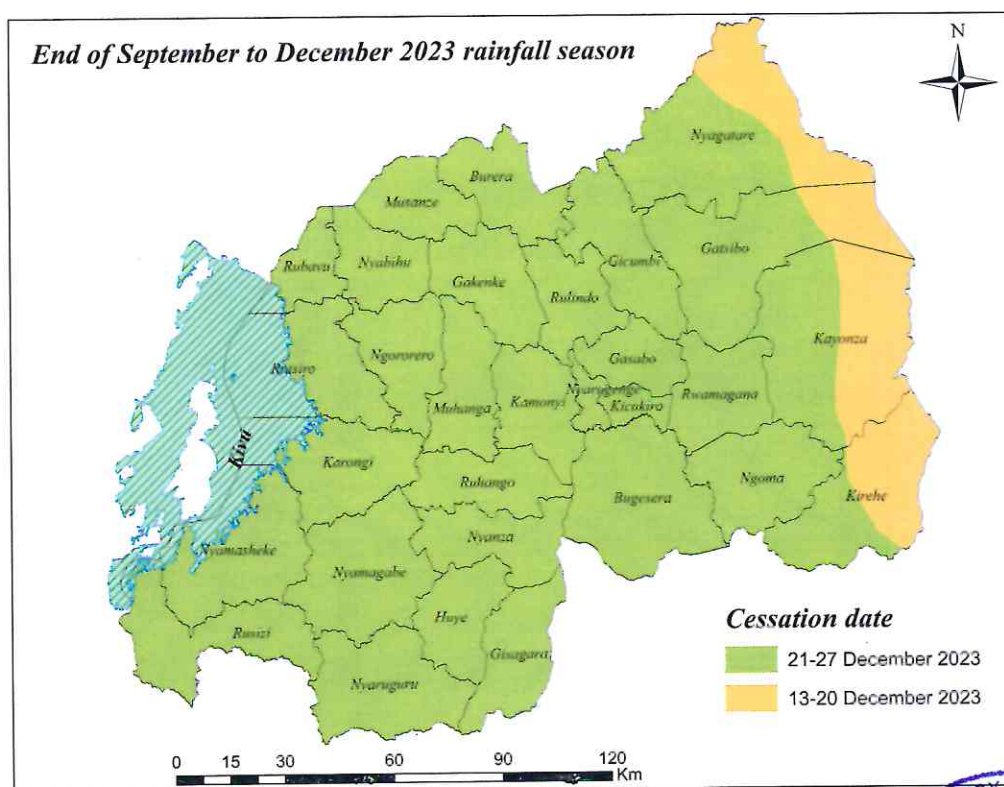
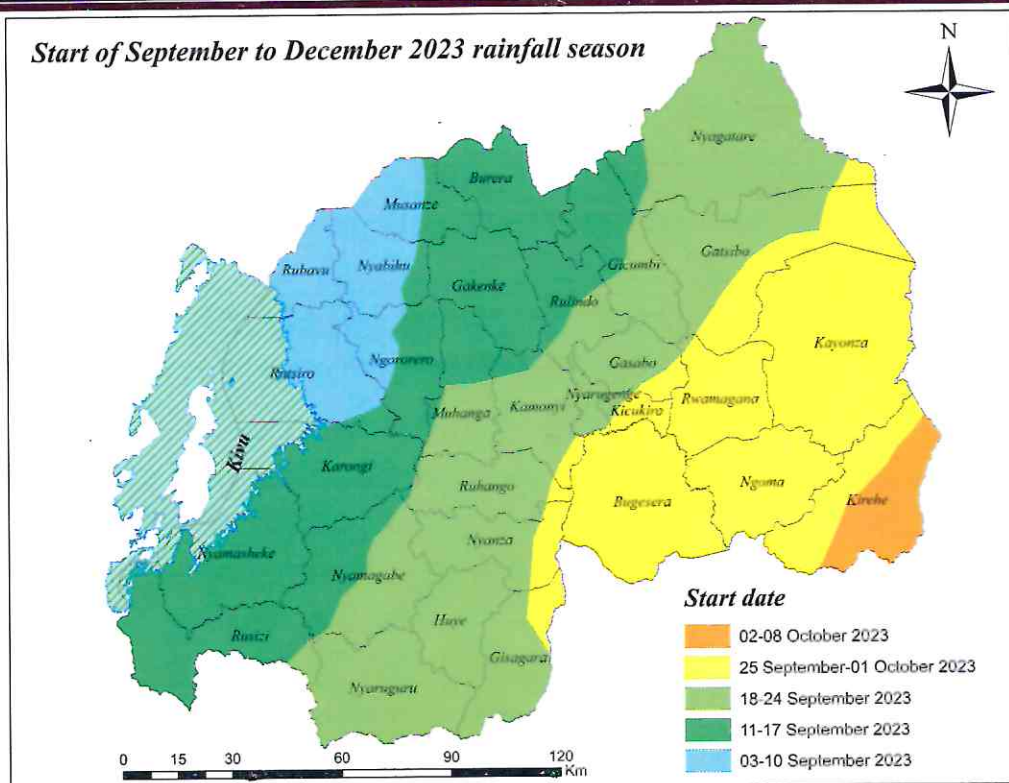
**Rainfall ranging between 700-800 millimeters**

The rainfall is expected in most parts of Nyamagabe, western parts of Nyaruguru District near Nyungwe National Park, in eastern parts of Rusizi and Nyamasheke Districts. It is also expected in a small part of southern Karongi District.











## THE ONSET OR THE START OF SOND 2023 RAINFALL SEASON

### ❖ Between 3<sup>rd</sup> and 10<sup>th</sup> September 2023

The onset of SOND rains is expected in Rubavu, most parts of Rutsiro, Nyabihu, Musanze and western parts of Ngororero District.

### ❖ Between 11<sup>th</sup> and 17<sup>th</sup> September 2023

Rainfall is expected to start in Nyamasheke, Karongi, Rusizi, Gakenke and Burera Districts, eastern parts of Musanze, Nyabihu and Ngororero Districts, northern parts of Gicumbi, Rulindo Muhanga and Kamonyi Districts and western parts of Nyamagabe District.

### ❖ Between 18<sup>th</sup> and 24<sup>th</sup> September 2023

The rainfall onset is expected in most parts of Nyaruguru, Nyanza, Huye, Gisagara, Ruhango, Kamonyi, Nyarugenge, Gasabo, Nyagatare and Gatsibo Districts, it's also expected in southern parts of Muhanga, Gicumbi, Rulindo and a small part of northern Kicukiro Districts.

### ❖ Between 25<sup>th</sup> September and 1<sup>st</sup> October 2023

The rainfall onset is expected in Bugesera, Rwamagana, Ngoma, Kayonza, most parts of southern Gasabo, Kicukiro, Gatsibo, eastern parts of Kamonyi, northern parts of Kirehe, Ruhango, Nyanza and Gisagara Districts.

### ❖ Between 2<sup>nd</sup> and 8<sup>th</sup> October 2023

The rainfall onset is expected in southern and eastern Kirehe District.

## THE CESSATION OR THE END OF SOND 2023 RAINFALL SEASON

### ❖ Between 13<sup>th</sup> and 20<sup>th</sup> December 2023

The cessation of SOND rain is expected in eastern parts of Kirehe, Kayonza, Gatsibo and Nyagatare Districts in the Eastern province.

### ❖ Between 21<sup>st</sup> and 27<sup>th</sup> December 2023

The cessation is expected on in most parts of Western, Northern, Southern, western parts of Eastern Province and Kigali City.







The forecasted rainfall amount, onset and cessation dates of SOND 2023 in different regions of the country are provided in the following table.

Province	District	Expected rainfall amount (mm)	Onset date	Cessation date
City of Kigali	Nyarugenge	500-600 (north) 400-500 (most part)	18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Gasabo	500 - 600 400 - 500 east	18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Kicukiro	400 - 500	18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
Northern Province	Musanze	600 - 700	3 <sup>rd</sup> -10 <sup>th</sup> Sept 11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Gicumbi	600 - 700 (north) 500-600 (most part)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Rulindo	600 – 700 (north) 500-600 (most part)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Burera	600-700 (most parts)	11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Gakenke	600-700 (most parts) 500-600 (southern)	11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
Southern Province	Kamonyi	500 – 600 (most parts) 400-500 (eastern)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Muhanga	500 - 600 (most parts) 600-700 (western)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Ruhango	400 - 500 (eastern) 500-600 (most parts) 600-700 (western)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Nyanza	400 - 500 (eastern) 500-600 (most parts) 600-700 (western)	18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Huye	500-600 (most parts) 600-700 (western)	18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Gisagara	400 - 500 (northern) 500-600 (most parts) 600-700 (southern)	18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Nyamagabe	400 - 500	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Nyaruguru	700-800 (most part)	18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December





Province	District	Expected rainfall amount (mm)	Onset date	Cessation date
		600-700 (southern) 500-600 (small parts of eastern)		
Eastern Province	Bugesera	400-500	25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Kirehe	400-500 (most parts) 300-400 (north eastern)	25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct 2 <sup>nd</sup> -8 <sup>th</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December 13 <sup>th</sup> -20 <sup>th</sup> December
	Gatsibo	500-600 (western) 400-500 (most parts)	18 <sup>th</sup> -24 <sup>th</sup> Sept 25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December 13 <sup>th</sup> -20 <sup>th</sup> December
	Kayanza	500-600 (western) 400-500 (most parts) 300-400 (eastern)	25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December 13 <sup>th</sup> -20 <sup>th</sup> December
	Rwamagana	500-600 (eastern) 400-500 (most parts)	25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December
	Ngoma	400 – 500	25 <sup>th</sup> Sept to 1 <sup>st</sup> Oct	21 <sup>st</sup> -27 <sup>th</sup> December 13 <sup>th</sup> -20 <sup>th</sup> December
	Nyagatare	400-500 (south eastern) 500 - 600 (most part)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December 13 <sup>th</sup> -20 <sup>th</sup> December
Western Province	Nyabihu	600-700	3 <sup>rd</sup> -10 <sup>th</sup> Sept 11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Rubavu	600-700	3 <sup>rd</sup> -10 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Rutsiro	600-700	3 <sup>rd</sup> -10 <sup>th</sup> Sept 11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Karongi	600-700 700-800 (southern)	11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Ngororero	600-700 500-600 (small parts of eastern)	3 <sup>rd</sup> -10 <sup>th</sup> Sept 11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Nyamasheke	600-700 700-800 (south eastern)	11 <sup>th</sup> -17 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December
	Rusizi	600-700 700-800 (eastern)	11 <sup>th</sup> -17 <sup>th</sup> Sept 18 <sup>th</sup> -24 <sup>th</sup> Sept	21 <sup>st</sup> -27 <sup>th</sup> December

### THE EXPECTED IMPACTS IN VARIOUS SECTORS

The expected near normal to above normal rainfall during the September to December 2023 wet season may lead to extreme weather events such heavy rains, hailstorms, strong windstorms, etc.







METEO RWANDA advises the public institutions, NGOs, Private sector and the general public, especially farmers, to take note of this forecast and use it to make informed decisions regarding agricultural activities.

METEO RWANDA, in collaboration with the Ministry of Agriculture and Animal Resources (MINAGRI), Rwanda Agriculture and Animal Resources Development Board (RAB), Ministry in Charge of Emergency Management (MINEMA) and other partners, will continue to support different initiatives aimed at providing weather and climate products for effective planning and informed decision especially in areas prone to extreme weather and climate events.

For more information, contact METEO RWANDA on its website, social media platforms and toll-free number **6080**.

**N.B.** This seasonal forecast is supplemented by daily weather updates of different timescales 24-hours, 3-day, 5-day and 7-day, 10-day forecasts, regular monthly forecast updates and advisories issued by METEO RWANDA.

Done at Kigali on 24<sup>th</sup> August 2023

  
**Aimable GAHIGI**  
**Director General**

