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### SEASONAL FORECAST FOR MARCH TO MAY (MAM) 2019, N°51

March to May (MAM) constitutes an important rainfall season over the equatorial sector of the Greater Horn of Africa (GHA) region as well as over Rwanda. The National consensus climate outlook for the March to May 2019 season indicates increased chance for normal to above normal rainfall over most part of Western Northern province, Kigali city and southern province (Ruhango, Kamonyi, Muhanga and Nyamagabe Districts).

Normal rainfall is expected in the Eastern province except Kirehe, Gisagara, southern part of Ngoma, Bugesera and Rusizi that will receive depressed rainfall.

In March to May 2019, the above normal rainfall is expected to exceed 510 milimeters, normal rainfall is in the range of 390 and 510mm whereas near normal to below rainfall will be less than 390 milimeters. The Key factors expected to influence the regional climate during the MAM 2019 season include positive SST anomalies currently present in the tropical Pacific Ocean are expected to remain positive but weaken slightly through the forecast period. The Indian Ocean Dipole index is expected to remain neutral through the March to May 2019 period. The influence of the ocean processes will be modulated by regional circulation systems, topography and large inland water bodies.

From the Statistical and Dynamical analysis done for each zone, the seasonal forecast is as follows:

Enhanced rainfall is expected over Rubavu, Rutsiro, Karongi, Nyabihu, Ngororero, Nyamasheke bordering Karongi and Nyamagabe, most part of Nyamagabe and Ruhango, Kamonyi, Muhanga,

- Musanze, Burera, Gakenke, Rulindo, Gicumbi, Nyarugenge, Kicukiro, Gasabo, Rwamagana and most part of Gatsibo and Nyagatare bordering Gicumbi district and north part of Bugesera.
- Near normal rainfall is expected over most part of Gatsibo and Nyagatare, Kayonza, Ngoma, Bugesera, part of Ruhango, Nyanza, Huye, Nyaruguru, Rusizi and Nyamasheke districts.
- Slightly depressed rainfall is expected in Kirehe, Gisagara, southern part of Ngoma, Bugesera, and Rusizi.

### Expected onset and cessation dates of MAM 2019

| Region  | Onset dates                   | Cessation dates  First week of June 2019                     |  |
|---|-------------------------------|--|--|
| Most parts of<br>Western province   | 25th February-07th March 2019 |  |  |
|   |                               | Between the last week of May and the first week of June 2019 |  |
| Northern Province   | 25th February-07th March 2019 | First week of June 2019                                      |  |
| Kigali City   | 25th February-07th March 2019 | Last week of May 2019  |  |
| Most part of<br>Southern province   | 25th February-07th March 2019 | Last week of May 2019  |  |
| Eastern province  | 1st -10th March 2019          | Last week of May 2019  |  |
| South Eastern<br>province (Kirehe,<br>some parts of<br>Ngoma and<br>Bugesera) | 1st -10th March 2019          | 2 <sup>nd</sup> week of May 2019                             |  |



# THE EXPECTED IMPACTS IN VARIOUS SECTORS

The normal to above normal rainfall expected during the March to May 2019 rainfall season may cause floods and other related disasters such as landslides, water born diseases, destruction of houses and others. All these impacts may lead to loss of life and properties.

The normal to below normal rainfall expected during the March to May 2019 rainfall season may cause unfavorable conditions for crop yield and water scacity.

Thefore relevant authorities with activities that depend on rainfall and other vurnerable institutions like infrastructures should put in place both preventive and mitigative strategies to minimize loss of life and property.

## AMOUNT OF RAINFALL PREDICTED DURING MAM 2019

| PROVINCES                              | DISTRICT   | RAINFALL PREDICTED | AVERAGE |  |
|--|------------|--------------------|---------|--|
|  | NYARUGENGE | 440-470            |         |  |
| UMUJYI WA KIGALI                       | KICUKIRO   | 460-470            |         |  |
|  | GASABO     | 470-490            | 400-470 |  |
| INTARA<br>Y'UBURASIRAZUBA              | RWAMAGANA  | 390-410            |         |  |
|  | KAYONZA    | 350-390            |         |  |
|  | GATSIBO    | 400-420            |         |  |
|  | NGOMA      | 360-390            |         |  |
|  | KIREHE     | 290-310            |         |  |
|  | BUGESERA   | 290-330            | 390-460 |  |
|  | NYAGATARE  | 340-370            |         |  |
| INTARA<br>Y'IBURENGERAZUBA             | RUBAVU     | 470-510            |         |  |
|  | NYABIHU    | 480-520            |         |  |
|  | NGORORERO  | 490-500            |         |  |
|  | KARONGI    | 480-510            |         |  |
|  | RUTSIRO    | 510-530            |         |  |
|  | NYAMASHEKE | 460-490            |         |  |
|  | RUSIZI     | 440-480            | 440-510 |  |
|  | RULINDO    | 470-500            |         |  |
| INITADA                                | GAKENKE    | 430-470            |         |  |
| INTARA<br>Y'AMAJYARUGURU               | GICUMBI    | 460-490            |         |  |
|  | MUSANZE    | 500-520            |         |  |
|  | BURERA     | 450-470            | 450-530 |  |
|  | KAMONYI    | 420-440            |         |  |
|  | MUHANGA    | 410-430            |         |  |
|  | RUHANGO    | 390-420            |         |  |
| INTARA Y'AMAJYEPFO                     | NYANZA     | 370-400            |         |  |
| ************************************** | HUYE       | 390-420            |         |  |
|  | GISAGARA   | 380-410            |         |  |
|  | NYARUGURU  | 400-420            |         |  |
|  | NYAMAGABE  | 410-430            | 410-430 |  |

The favorable rainfall performance during the season may result into:

- Floods and landslides over some parts of the country.
- Reduced agricultural activities in some areas due to landslides, floods and water logging in some area.
- Damage to Infrastructure in some parts of the country.
- Increased for diseases due to water borne diseases Weather/Climate.

**N.B.** This outlook is supplimented by daily updates of different timescales (24-hours, 3- days 5-days and 10-days forecasts and regular monthly updates) and advisories issued by Rwanda Meteorology Agency.

Done on 18th February, 2019

Aimable GAHIGI

Director General