



HYDROMETEOROLOGICAL SERVICE OF GUYANA



DROUGHT MONITORING BULLETIN

To observe, archive and understand Guyana's weather and climate and provide meteorological, hydrological and oceanographic services in support of Guyana's national needs and international obligations.

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Introduction: The Drought Monitoring Bulletin for December was prepared using the WMO recommended Standardized Precipitation Index (SPI). The maps represent the 1-month (December 2017), 3-month (October - December 2017), 6-month (July - December 2017) and 12-month (January - December 2017) SPIs respectively, showing various degrees of wetness and/or dryness across the country. On short timescales, the SPI is closely related to soil moisture, while at longer timescales, the SPI can be related to groundwater and reservoir storage.

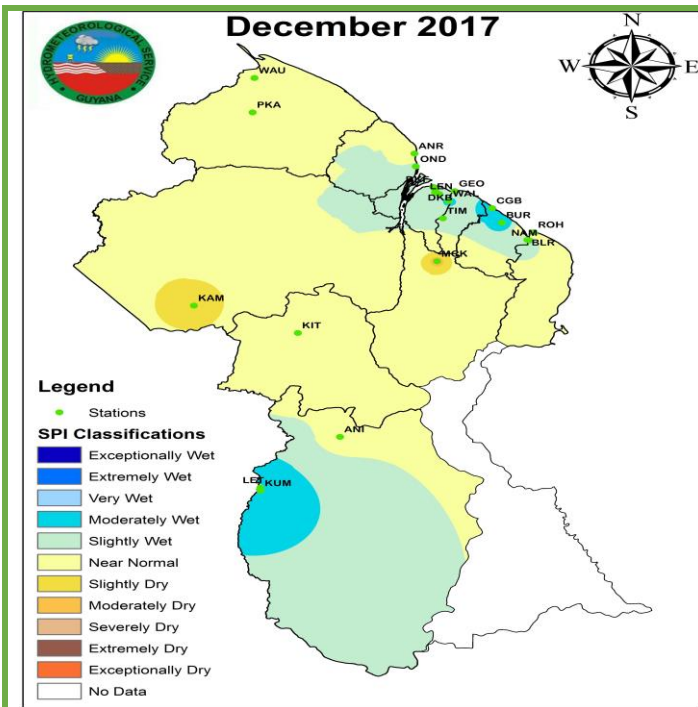


Fig.1: 1-Month Standardized Precipitation Index(SPI)

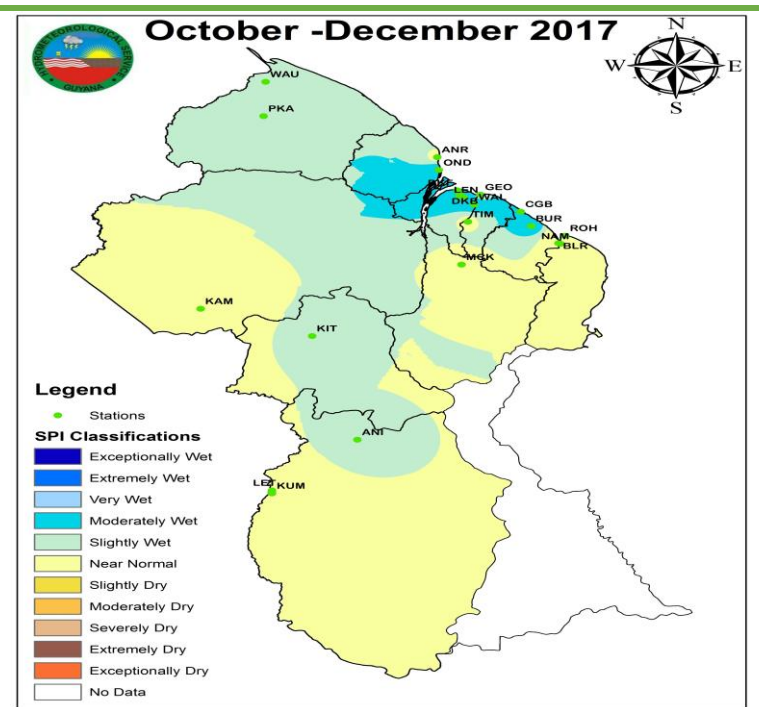


Fig.2: 3-Month Standardized Precipitation Index(SPI)
(for agricultural drought-soil moisture)

OBSERVED FEATURES

The 1-Month Standardized Precipitation Index (SPI) analysis for December (Fig.1) shows that most of the stations analyzed experienced near normal conditions. In southern Guyana, Lethem and Kumu experienced moderately wet conditions while Annai was classified as normal. Additionally, Wales, Cane Grove Back, and Burma were some of the stations that observed moderately wet conditions for Coastal Guyana. McKenzie and Kamarang observed moderately dry conditions. Several stations including Blairmont, Timehri, and New Amsterdam were classified as slightly wet.

For the 3-month Standardized Precipitation Index (SPI) (Fig. 2) Lethem and Kumu experienced normal soil moisture conditions while Annai was classified as slightly wet. Onderneeming, Georgetown, Burma, and Enmore were some of the stations that experienced moderately wet conditions. Further, Port Kaituma, Wauna and Kaieteur observed slightly wet conditions. At the start of the January growing season, normal soil moisture conditions consistent with the climate of the stations in southern Guyana is anticipated (generally dry). Currently, there is no concern for agricultural droughts, especially for northern Guyana.

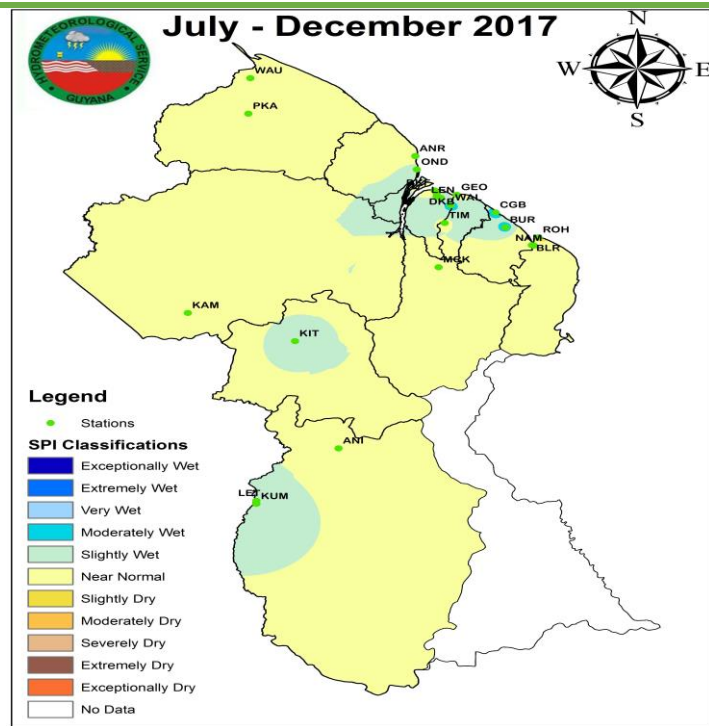


Fig.3: 6-Month Standardized Precipitation Index(SPI)

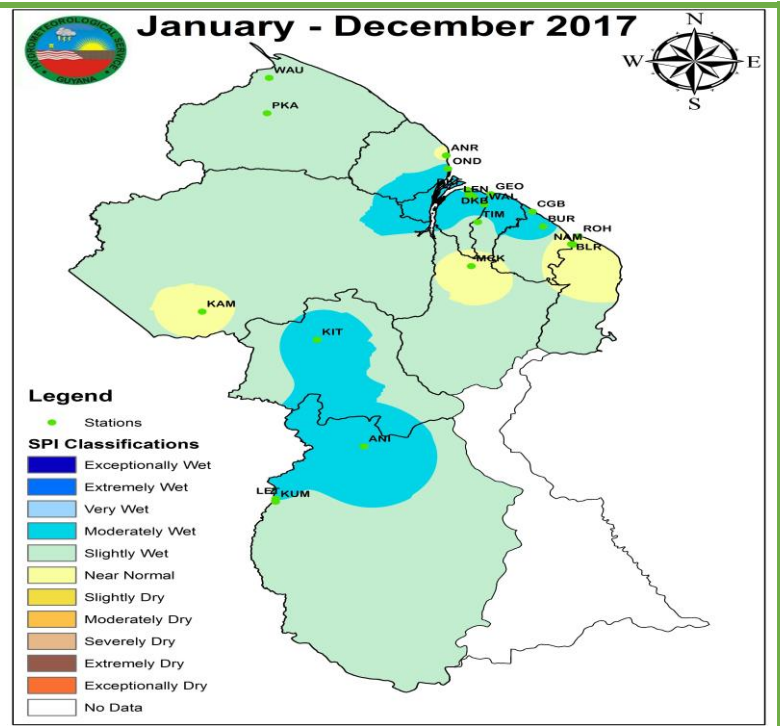


Fig.4: 12-Month Standardized Precipitation Index(SPI)

The 6-months cumulative rainfall (SPI) analysis (Fig. 3) showed the persistence of normal to slightly wet conditions over most stations analyzed. Stations in southern Guyana such as Lethem and Kumu, recorded a bit higher than normal rainfall while Annai recorded near normal conditions over the six-month period. Burma, Cane Grove Back, Leonora, Onderneeming, and Georgetown were some of the stations that recorded slightly wet condition.

Based on the 12-month Standardized Precipitation Index (SPI) analysis (Fig.4), all the areas analyzed ranged from near normal to moderately wet conditions. McKenzie, Blairmont, Kamarang, and Anna Regina were some of the stations that experienced near normal conditions over the past years. As can be observed in the figure there has not been any severe rainfall deficits over the areas looked at as it relates to the deviation of the normal rainfall recorded by the stations.

OUTLOOK FOR JANUARY, 2018

Northern Guyana will continue with its secondary rainfall season of 2017/2018. This region is expected to be wet during the month of January, thus there is no drought concern presently.

Southern Guyana (Rupununi Region) is expected to be generally dry during the month of January. Dry spells (consecutive days without rain) are anticipated.

NOTE: Values for the SPIs are computed using the monthly rainfall data for the stations represented (at least 20 years). The SPI values can be interpreted as the number of standard deviations by which the observed anomaly deviates from the long-term mean.

STATION ABBREVIATIONS

PKA-PORT KAITUMA	OND-ONDERNEEMING	DKF-DE KENDREN FRONT	ENM-ENMORE	BLR-BLAIRMONT	KAM-KAMARANG	ANI-ANNAI
WAU-WAUNA	UIV-UITVLUGT	LEN-LEONORA	TIM-TIMHERI	NAM-NEW AMSTERDAM	LET-LETHEM	EBI-EBINI
ANR-ANNA REGINA	DKB-DE KENDREN BACK	GEO-GEORGETOWN	CGB-CANE GROVE BACK	KIT-KAIETEUR	KUM-KUMU	MCK-M^cKENZIE
WAL-WALES	ROH-ROSE HALL	BUR-BURMA	-	-	-	-

This bulletin is prepared by the Hydrometeorological Service of Guyana. We welcome feedback, suggestions and comments on this bulletin. Correspondences should be directed to The Chief Hydrometeorological Officer (Ag) at garvin.cummings@gmail.com and the Agronomist at agrodonessa@yahoo.com. You may also visit our website at www.hydromet.gov.gy. Tele#: (592)-225-9303 and Fax#: (592)-226-1460.