



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 January was prepared using the WMO recommended Standardized Precipitation Index (SPI). The maps represent the 1-month (January 2018), 3-month (November 2017 - January 2018), 6-month (August 2017 - January 2018) and 12-month (February 2017 - January 2018) 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.

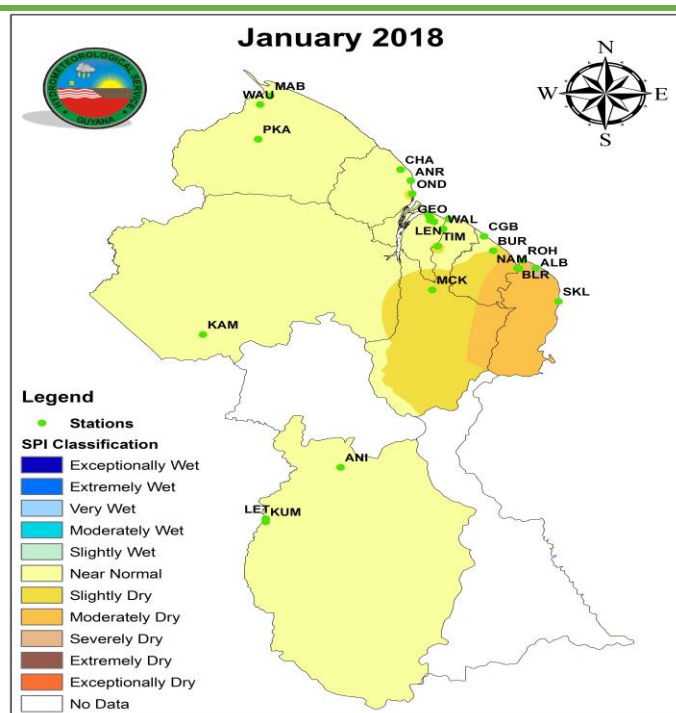


Fig.1: 1-Month Standardized Precipitation Index(SPI)

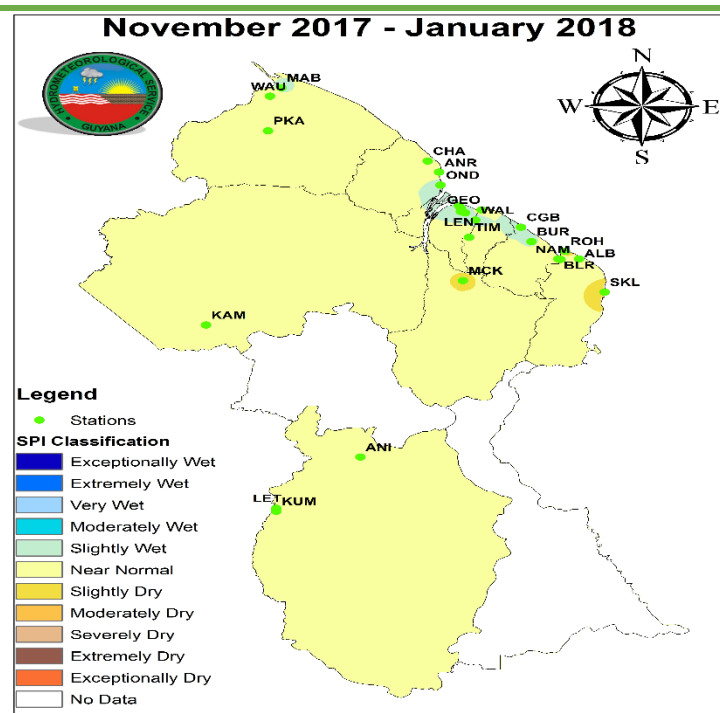


Fig.2: 3-Month Standardized Precipitation Index(SPI)
(for agricultural drought-soil moisture)

OBSERVED FEATURES

The 1-Month Standardized Precipitation Index (SPI) analysis for January (Fig.1) shows that all of the stations analysed ranged from near normal to severely dry conditions. Mabaurma, Charity, Annai, and Kamarang were some of the stations that experienced near normal conditions. Other places such as Burma, McKenzie, Timehri, and Onderneeming were slightly dry. Further, Rosehall and Skeldon were classified as moderately dry while Albion was classified as severely dry for the month.

For the 3-month Standardized Precipitation Index (SPI) (Fig. 2) all of the stations in Southern Guyana (Lethem, Annai, and Kumu) experienced near normal conditions (generally dry). Moderately dry conditions were experienced by Skeldon and McKenzie over the period. Rosehall was also classified as severely dry over the period considered.

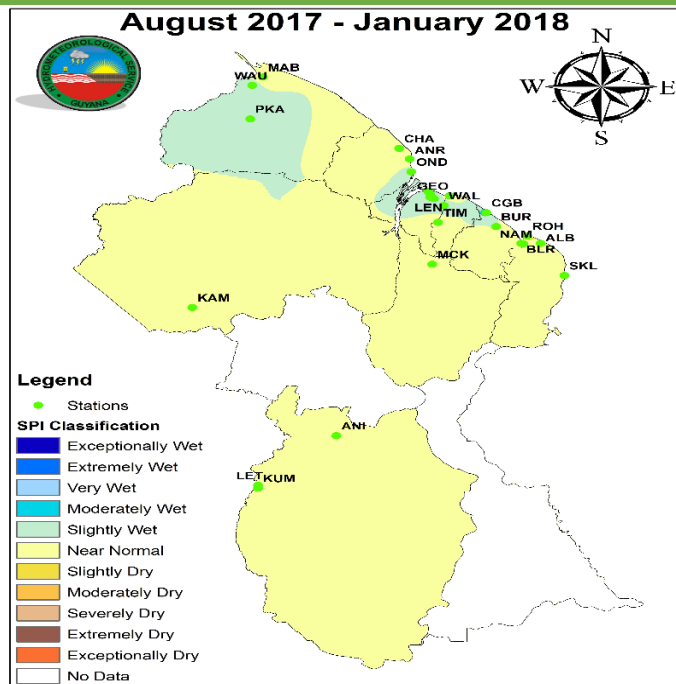


Fig.3: 6-Month Standardized Precipitation Index(SPI)

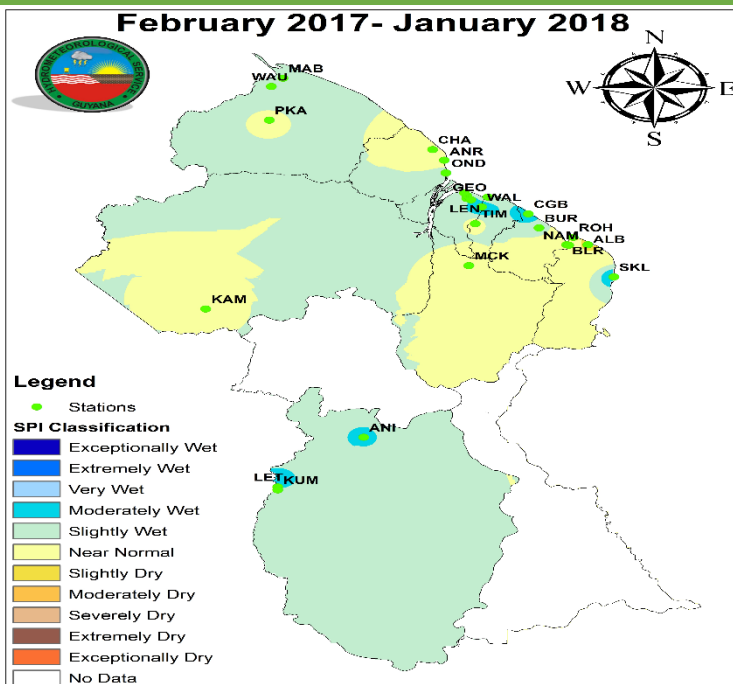


Fig.4: 12-Month Standardized Precipitation Index(SPI)

The 6-months cumulative rainfall (SPI) analysis (Fig. 3) showed the persistence of near normal to slightly wet conditions over most stations analyzed. The stations in southern Guyana such as Lethem, Kumu, and Annai recorded near normal conditions over the six-month period. Cane Grove Back, Leonora, Onderneeming 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, Charity and Anna Regina were some of the stations that experienced near normal conditions over the past year. Both Lethem and Annai were classified as moderately wet while Kumu was classified as slightly wet over the period.

OUTLOOK FOR FEBRUARY, 2018

Northern Guyana is expected to transition into its secondary dry season of 2018(short dry season) during the month. The increased occurrence of dry spells (consecutive days without rain) is likely. Additionally, downpours are still expected thus there is no drought concern presently for this region.

Southern Guyana (Rupununi Region) is expected to continue with its dry season. Dry spells (consecutive days without rain) are anticipated. Generally, dry conditions are expected in this region.

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	ALB-ALBION	KUM-KUMU	MCK-MCKENZIE
WAL-WALES	ROH-ROSE HALL	SKL-SKELDON	BUR- BURMA	KIT-KAIETEUR	MAB-MABURUMA	CHA-CHARITY

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 agrodonesa@yahoo.com. You may also visit our website at www.hydromet.gov.gy. Tele#: (592)-225-9303 and Fax#: (592)-226-1460.