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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Highlights: The Drought Monitoring Bulletin was prepared using the WMO recommended Standardized Precipitation Index (SPI). The maps represent the 1-month (July 2019), 3-month (May– July 2019), 6-month (February 2019– July 2019) and 12-month (August 2018 – July 2019) SPIs respectively, showing various degrees of wetness and/or dryness across the country.

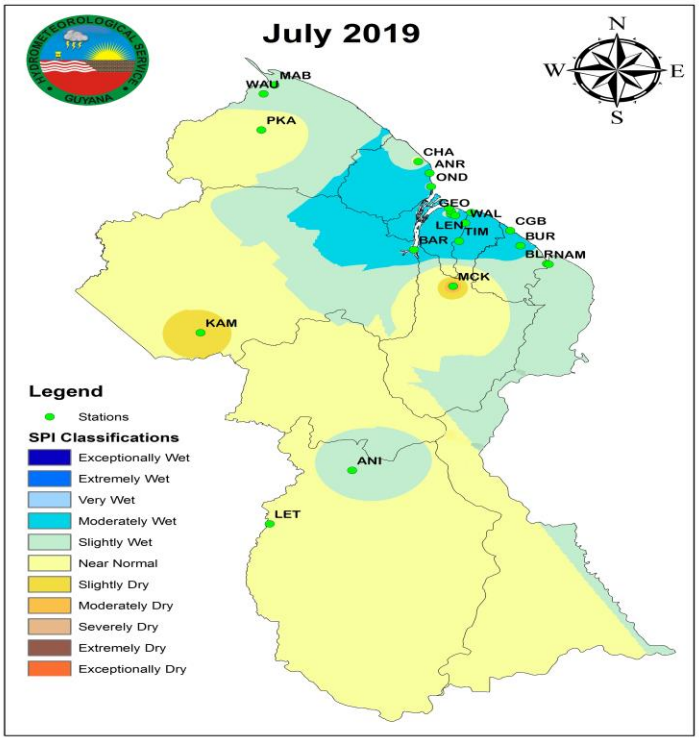

Fig 1: 1-Month Standardized Precipitation Index (SPI)

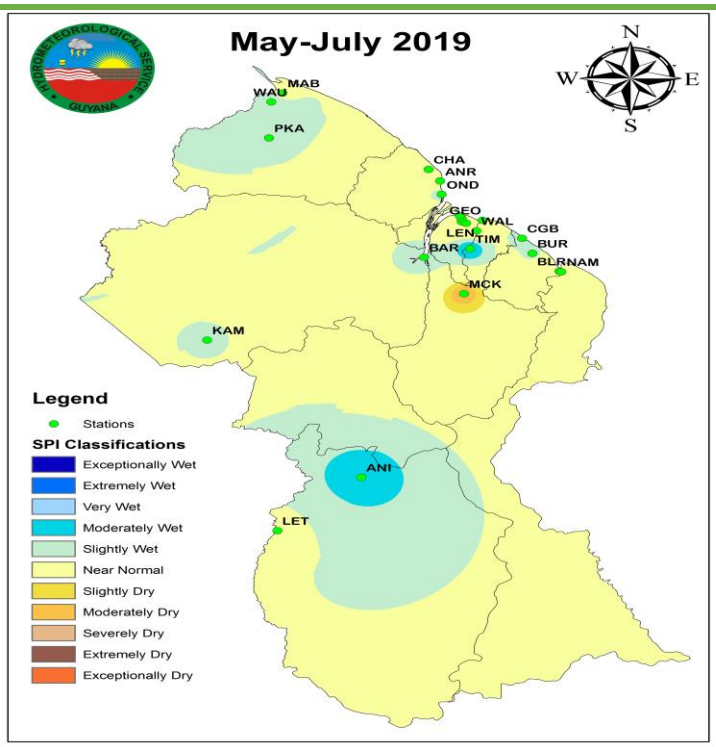

Fig.2: 3-Month Standardized Precipitation Index (SPI)

OBSERVED FEATURES: The 1-Month Standardized Precipitation Index (SPI) analysis for July (Fig.1) shows that most of the stations analyzed ranged from Moderately Dry to Moderately Wet conditions. Near Normal conditions were observed by several stations such as Port Kaituma and Lethem. On the other hand, Dekinderen Front and Timehri were classified as Slightly Wet, while Leonora, Georgetown and Blairmont were classified as Moderately Wet for the one-month period.

The 3-month Standardized Precipitation Index (SPI) (Fig.2) reveals that the stations ranged from Moderately Dry to Moderately Wet conditions. Near Normal conditions were observed over stations such as Anna Regina, Leonora and Georgetown. Slightly Wet conditions were observed at Wauna, Kamarang and Burma. Over the three-month period Annai and Timehri were classified as Moderately Wet.

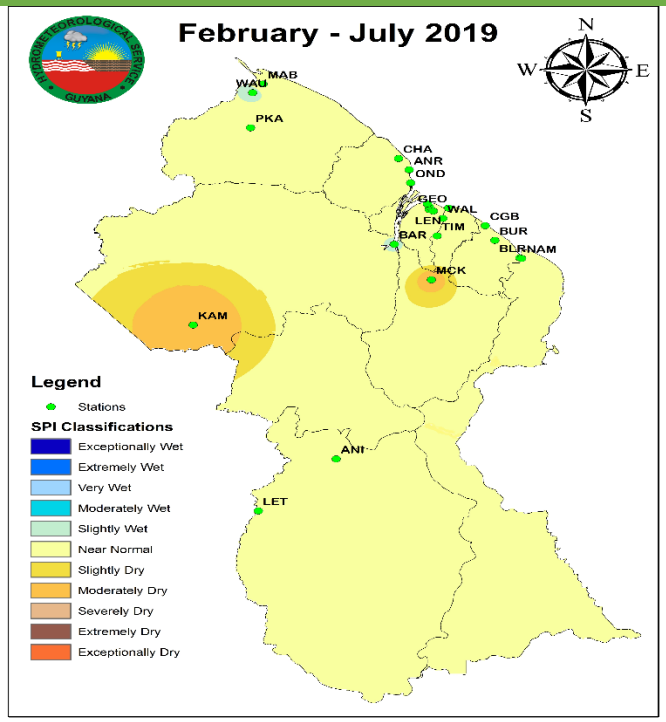

Fig.3: 6-Month Standardized Precipitation Index (SPI)

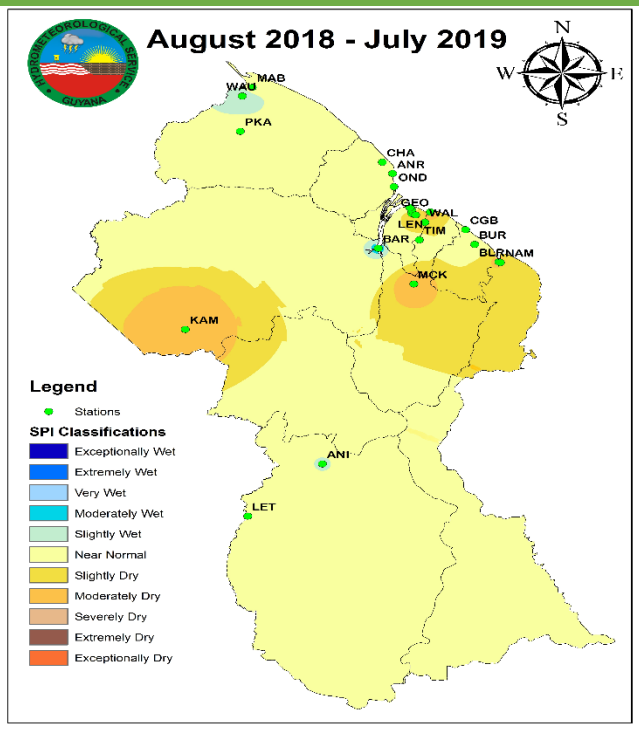

Fig.4: 12-Month Standardized Precipitation Index (SPI)

The 6-months cumulative rainfall (SPI) analysis (Fig. 3) showed that several stations such as Mckenzie and Kamarang saw the persistence of Moderately Dry conditions over the past 6 months. Burma, Cane Grove Back and Onderneeming were some of the areas to experience Near Normal conditions. Whereas, Wauna area was considered as Slightly Wet for the period under review.

The 12-month Standardized Precipitation Index (SPI) analysis (Fig.4), reveals that Wauna and Annai saw the persistence of Slightly Wet conditions over the past year. Charity, Timehri, Burma and Cane Grove Back experienced Near Normal conditions. Further, Uitvlugt, Georgetown, kamarang and Mckenzie also categorized as Moderately Dry for the twelve-month period.

STANDARDIZED PRECIPITATION INDEX (SPI) CLASSIFICATION

SPI Value	Category	SPI Value	Category
-0.50 to -0.01	Near Normal	0.50 to 0.01	Near Normal
-0.80 to -0.51	Slightly dry	0.80 to 0.51	Slightly wet
-1.30 to -0.81	Moderately dry	1.30 to 0.81	Moderately wet
-1.60 to -1.31	Severely dry	1.60 to 1.31	Very wet
-2.00 to -1.61	Extremely dry	2.00 to 1.61	Extremely wet
less than or equal to -2.01	Exceptionally dry	greater than or equal to +2.01	Exceptionally wet

DROUGHT OUTLOOK (Experimental)

Both the long and short-term drought monitors are indicating that there is no concern for droughts up until the end of November and October 2019, respectively. As a result, we advise all stakeholders to keep monitoring drought and look for our monthly updates.

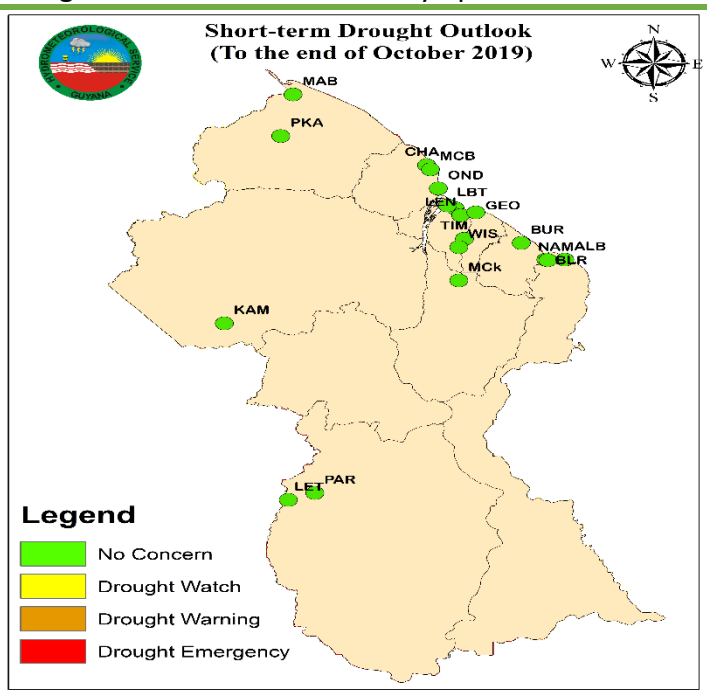

Fig.5: Short-term Drought Outlook by the end of October 2019 (Updated in July 2019-covering May- October 2019)

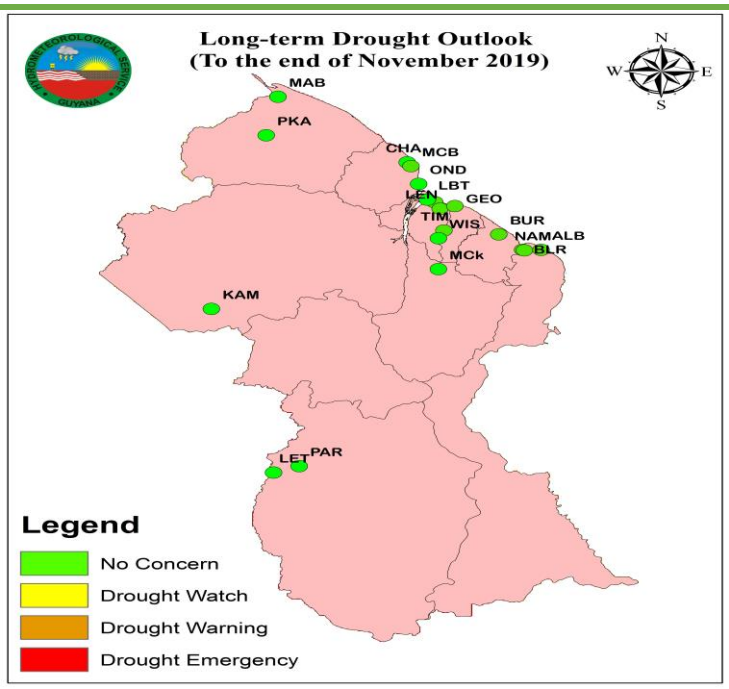

Fig.6: Long-term Drought Outlook by the end of November 2019 (Updated in July 2019 - covering December 2018 - November 2019)

DROUGHT ALERT LEVELS

Alert Levels	Probabilities	Meaning
No Concern	< 33.3333	No Drought Concern
Drought Watch	33.3334-50	Drought is Possible
Drought Warning	50-83.3333	Drought Evolving
Drought Emergency	≥83.3334	Drought of Immediate Concern

STATION ABBREVIATIONS

PKA-PORT KAITUMA	OND-ONDERNEEMING	DKF-DE KINDEREN 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 KINDEREN BACK	GEO-GEORGETOWN	CGB-CANE GROVE BACK	PAR-PARISHARA	KUM-KUMU	MCK-M^{c}KENZIE
WAL-WALES	ROH-ROSE HALL	SKL-SKELDON	BUR- BURMA	MAB-MABARUMA	CHA-CHARITY	BAR-BARTICA
KAI- KAIETEUR	KAM-KAMRANG	-	-	-	-	-

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