

**Table S1.** Seasonal trend of BFI range in KRB

		Pre-Monsoon	Monsoon	Post-Monsoon	Winter
Historical		0.69-0.81	0.62-0.91	0.93-0.97	0.82-0.94
SSP245	Near	0.54-0.84	0.63-0.95	0.87-0.99	0.81-0.97
	Mid	0.60-0.82	0.65-0.94	0.87-0.99	0.82-0.96
	Far	0.62-0.81	0.66-0.97	0.87-0.99	0.80-0.97
SSP585	Near	0.57-0.83	0.63-0.95	0.88-0.99	0.81-0.97
	Mid	0.61-0.83	0.62-0.95	0.88-0.99	0.82-0.96
	Far	0.62-0.80	0.64-0.96	0.88-0.99	0.82-0.97

**Table S2.** Monthly BFI for 5 watersheds

STATION		FUTURE PERIODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Asarghat	Observed		0.84	0.82	0.78	0.74	0.71	0.70	0.69	0.77	0.90	0.96	0.95	0.89
	SSP245	Near	0.85	0.83	0.77	0.72	0.71	0.64	0.78	0.87	0.95	0.95	0.88	0.86
		Mid	0.84	0.82	0.80	0.68	0.67	0.69	0.78	0.84	0.96	0.95	0.88	0.86
		Far	0.84	0.80	0.80	0.70	0.63	0.72	0.79	0.82	0.97	0.95	0.87	0.86
	SSP585	Near	0.84	0.82	0.77	0.72	0.67	0.63	0.78	0.87	0.95	0.95	0.88	0.86
		Mid	0.84	0.82	0.79	0.69	0.65	0.67	0.81	0.84	0.95	0.96	0.88	0.86
Far		0.84	0.82	0.76	0.68	0.64	0.74	0.79	0.81	0.96	0.96	0.89	0.86	
Benighat	Observed		0.83	0.82	0.79	0.74	0.72	0.70	0.66	0.77	0.90	0.97	0.93	0.87
	SSP245	Near	0.84	0.82	0.78	0.75	0.70	0.63	0.75	0.86	0.93	0.95	0.87	0.85
		Mid	0.84	0.83	0.79	0.71	0.69	0.65	0.78	0.83	0.94	0.95	0.87	0.85
		Far	0.83	0.82	0.80	0.69	0.66	0.69	0.79	0.81	0.95	0.95	0.87	0.86
	SSP585	Near	0.84	0.83	0.79	0.74	0.68	0.64	0.74	0.87	0.93	0.95	0.88	0.85
		Mid	0.84	0.82	0.79	0.71	0.67	0.64	0.79	0.84	0.93	0.96	0.88	0.85
Far		0.84	0.82	0.78	0.70	0.64	0.70	0.80	0.81	0.93	0.96	0.88	0.85	
Chisapani	Observed		0.87	0.87	0.81	0.70	0.70	0.69	0.69	0.77	0.91	0.97	0.96	0.93
	SSP245	Near	0.91	0.83	0.79	0.70	0.64	0.67	0.70	0.83	0.92	0.99	0.97	0.96
		Mid	0.90	0.87	0.75	0.69	0.65	0.66	0.71	0.82	0.94	0.99	0.97	0.95
		Far	0.89	0.84	0.74	0.67	0.66	0.66	0.74	0.81	0.96	0.99	0.97	0.96
	SSP585	Near	0.91	0.84	0.77	0.72	0.65	0.63	0.71	0.83	0.94	0.98	0.98	0.96
		Mid	0.91	0.85	0.76	0.69	0.64	0.62	0.73	0.83	0.94	0.99	0.98	0.95
Far		0.90	0.84	0.80	0.66	0.62	0.64	0.76	0.81	0.95	0.99	0.98	0.96	
Rimna	Observed		0.88	0.84	0.78	0.74	0.69	0.67	0.63	0.77	0.90	0.93	0.93	0.94
	SSP245	Near	0.89	0.81	0.81	0.54	0.77	0.72	0.73	0.82	0.87	0.98	0.99	0.97
		Mid	0.89	0.86	0.72	0.60	0.78	0.70	0.75	0.81	0.89	0.98	0.99	0.96
		Far	0.87	0.81	0.67	0.66	0.77	0.70	0.76	0.80	0.90	0.98	0.99	0.97
	SSP585	Near	0.90	0.81	0.79	0.57	0.73	0.73	0.73	0.82	0.88	0.97	0.99	0.97
		Mid	0.89	0.84	0.71	0.61	0.77	0.69	0.74	0.81	0.89	0.98	0.99	0.96
Far		0.89	0.82	0.62	0.75	0.73	0.67	0.76	0.81	0.89	0.98	0.99	0.97	
Samaijighat	Observed		0.83	0.82	0.81	0.77	0.75	0.70	0.62	0.76	0.91	0.97	0.95	0.88
	SSP245	Near	0.91	0.87	0.84	0.68	0.64	0.66	0.75	0.83	0.90	0.98	0.96	0.95
		Mid	0.91	0.88	0.82	0.64	0.66	0.67	0.76	0.82	0.91	0.98	0.96	0.95
		Far	0.90	0.85	0.81	0.62	0.66	0.69	0.78	0.81	0.92	0.98	0.96	0.95
	SSP585	Near	0.91	0.87	0.83	0.71	0.63	0.64	0.75	0.84	0.91	0.98	0.97	0.95
		Mid	0.91	0.88	0.83	0.67	0.65	0.63	0.76	0.82	0.92	0.98	0.97	0.94
Far		0.91	0.89	0.80	0.66	0.65	0.65	0.78	0.81	0.93	0.97	0.96	0.95	