1. Introduction

Hydrology and Water Resources Services Division (HWRSD) is one of the four Divisions of the Center, responsible for generating and disseminating information and services related to hydrology and water resources.

The Division collects and archives daily data from the river gauging station located across the country, to keep updated on the status of the flow, the Division is coming up with Monthly Flow Monitoring Report in selected hydrological stations located in different river basins. Currently, following stations (figure 1) are selected for monthly monitoring of the flow;

1. Lungtenphu station in Wangchhu,

- 2. Kerabaristaion in Punatsangchhu basin and
- 3. Bjizam station in Mangdechhu basin.

The main objective of the report is to understand and keep updated flow status of the river and further provide information on the abnormal data observation while comparing with the historical flow data.

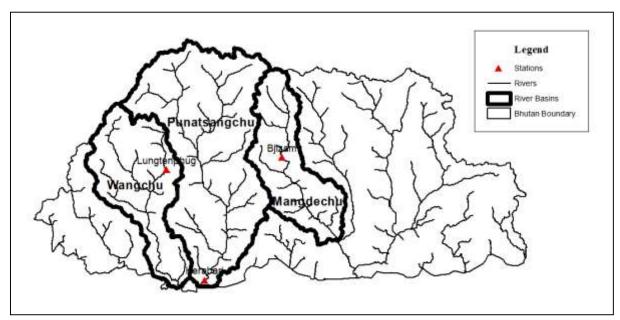


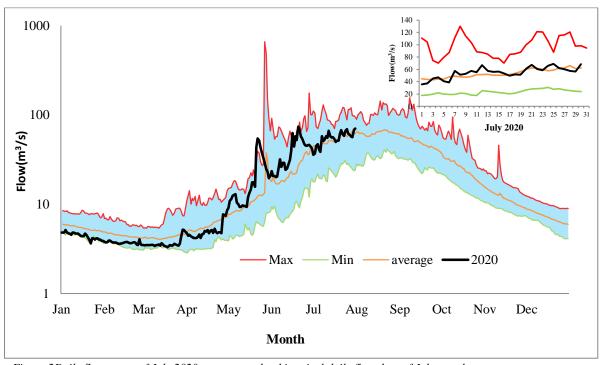
Figure 1 Map showing the selected stations for Flow monitoring

2. Methodology

The flow of July 2020 is compared to the flow of historical July months. The historical flow data is available from 1991 to 2018. The measures of dispersion such as mean, maximum and minimum flows are computed to make comparison.

3. Observation

During the July month, the average flow (i,e 55.45 cumecs) is a bit higher than the average of July months from 1991-2018 (i,e 53.76 cumecs). The maximum flow was observed lower than the Maximum flow ever recorded in July from 1991-2018. While Minimum flow is observed to be higher in July 2020 compared to the Minimum flow ever recorded in July from 1991-2018.



 $Figure\ 2Daily\ flow\ status\ of\ July\ 2020\ as\ compared\ to\ historical\ daily\ flow\ data\ of\ July\ months$

Table 1 Table of flow statistics comparison between July of 2020 and historical July months (1991-2018).

Statistics	July 2020 (m ³ /s)	Historical July (1991- 2018)m³/s
Mean flow	55.45	53.76
Max flow	70.69	129.94
Min flow	35.07	17.75

4. Summary

- 1. The mean flow of July 2020 is observed to be 1.69 m³/s higher compared to the mean of Normal flow (average of flow for July from 1991-2018).
- 2. The minimum flow for July b2020 is observed to be higher by 17.32m³/s compared to the minimum flow ever recorded in July for past years (1991-2018).
- 3. The maximum flow for July 2020 didn't exceed the maximum flow ever recorded in July for past years (1991-2018).