

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. **Kerabari staion 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.

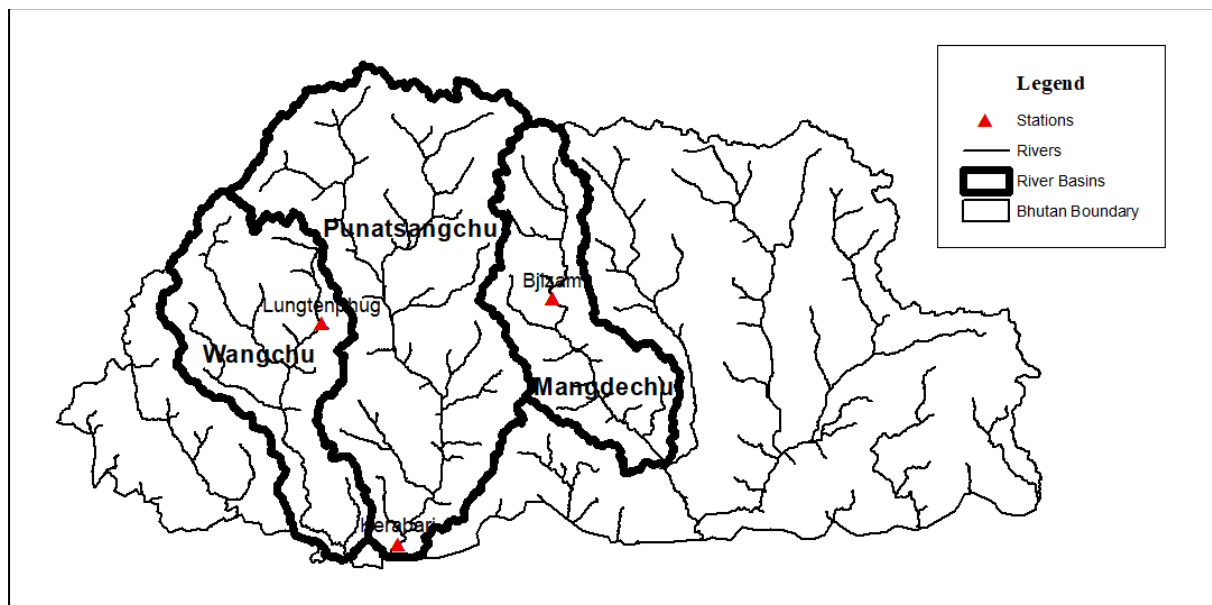


Figure 1 Map showing the selected stations for Flow monitoring

2. Methodology

The flow of October 2020 is compared to the flow of historical October months. The historical flow data is available from 2008 to 2018. The measures of dispersion such as mean, maximum and minimum flows are computed to make comparison.

3. Observation

The average flow recorded for the month of October 2020 is $496.67\text{m}^3/\text{s}$ which is higher than the average flow of October months from 2008-2018. The maximum flow in October ($893.08\text{m}^3/\text{s}$) does not exceed the maximum flow ever recorded in October thus far. The minimum flow of October 2020 exceeds the minimum flow ever recorded in October thus far.

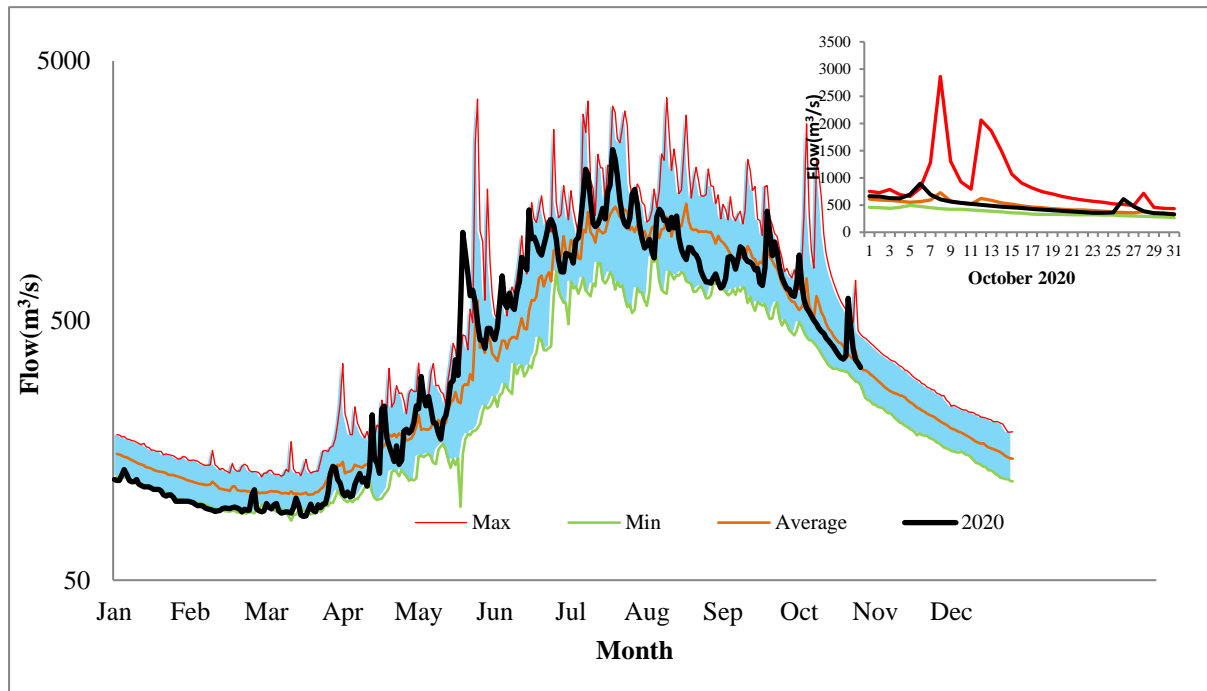


Figure 2 Daily flow status of October 2020 as compared to historical daily flow data of October months

Table 1 Table of flow statistics comparison between October of 2020 and historical October (2008-2018).

Statistics	October 2020 (m^3/s)	Historical October (2008-2018) m^3/s
Mean flow	496.67	484.98
Max flow	893.08	2863.42
Min flow	330.32	267.58

4. Summary

1. The mean flow of October 2020 is observed to be $11.69\text{ m}^3/\text{s}$ higher compared to the mean of Normal flow (Average of flow for October from 2008-2018).
2. The minimum flow in October 2020 is observed to be higher by $62.74\text{m}^3/\text{s}$ compared to the minimum flow ever observed in October months.
3. The Maximum flow of October 2020 is observed to be not exceeding the maximum flow ever recorded in October thus far.