

## 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 station in Punatsangchhu basin
3. Kurjey station in Chamkharchhu basin and
4. **Wangdirapids station in Punatsangchhu 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.

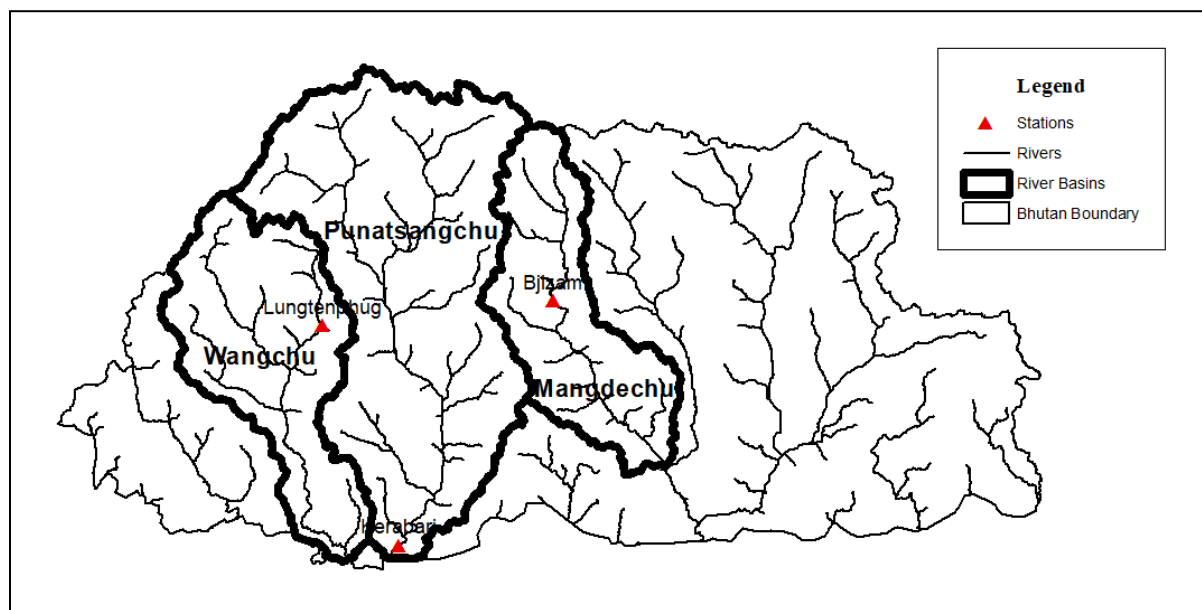


Figure 1 Map showing the selected stations for Flow monitoring

## 2. Methodology

The flow of August 2021 is compared to the flow of historical August months. The historical flow data is available from 1991 to 2020. The measures of dispersion such as mean, maximum and minimum flows are computed to make comparison.

### 3. Observation

The mean flow recorded for the month of August 2021 was  $845.80\text{m}^3/\text{s}$  which is higher than the mean of Historical August months (i.e.  $753.74\text{m}^3/\text{s}$ ). Maximum flow of August 2021 (i.e.  $1353.97\text{m}^3/\text{s}$ ) was observed to be lesser than the maximum flow observed in the past August months (i.e.  $2195.30\text{m}^3/\text{s}$ ). Meanwhile Minimum flow of August 2021 was observed to be higher than the past August months.

#### Station: Wangdirapids Station on Punatsangchhu Basin, August 2021

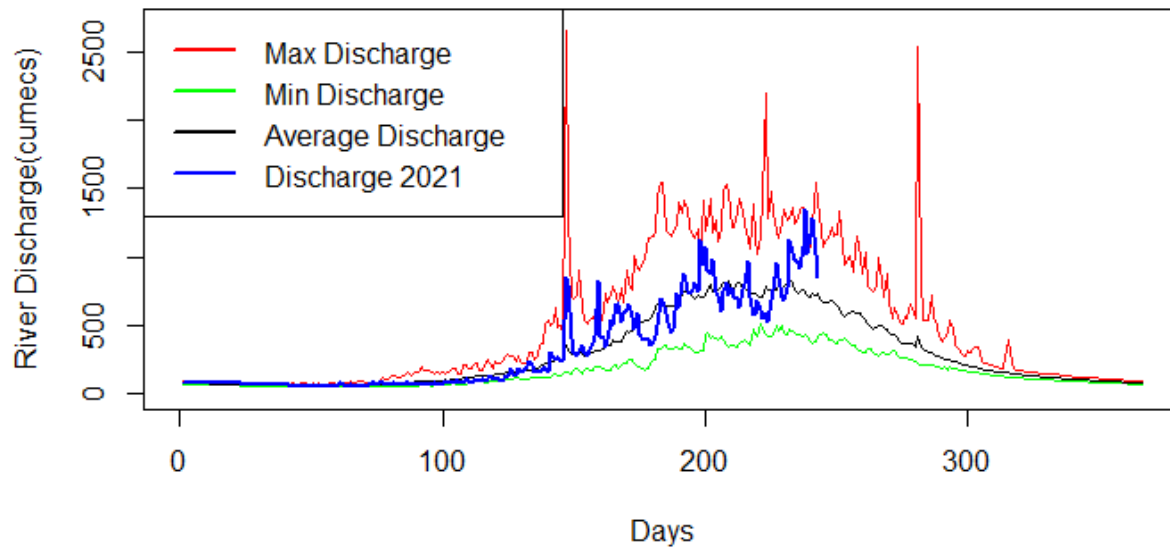


Figure 2 Daily flow status of August 2021 as compared to historical daily flow data of August months

Table 1 Table of flow statistics comparison August of 2021 and historical August months (1991-2020).

Statistics	August 2021 ( $\text{m}^3/\text{s}$ )	Historical August (1991-2020) $\text{m}^3/\text{s}$
Mean flow	845.80	753.74
Max flow	1353.97	2195.30
Min flow	523.90	356.99

### 4. Summary

1. The mean flow of August 2021 is observed to be  $92.06\text{m}^3/\text{s}$  higher compared to the mean of Normal flow (Historical August).
2. The minimum flow is observed to be higher by  $166.91\text{m}^3/\text{s}$  for August 2021 compared to the minimum flow observed in the past for August months.

3. The Maximum flow of August 2021 was observed to be lesser than the maximum flow observed in the past August months by  $841.33\text{m}^3/\text{s}$ .