**DATA VISUALIZATION**

**ASSIGNMENT 1**

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**20I-1853**

**----------------------------------------------------------------**

**This assignment is based in two sections**

**Section 1**

->Analysis of water in Rivers that are one of the reason of floods

**Section 2**

->Analysis Of side effects that are caused due to flood

**Section\_1**

**In Section 1 I have done ANALYSIS ON TWO MAIN POINTS**

**1\_Inflow and Out Flow of Rivers**

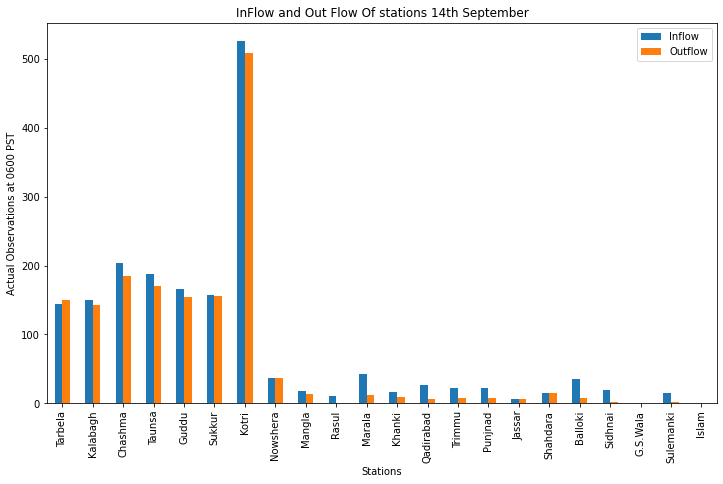
**2\_ Qualitative Forecasted Flood**

For this purpose, I have Scrapped Data of 3 different Dates So analysis and comparison can be done Easily.

**1\_Inflow and Out Flow of Rivers**

**PLOTS:**

**Graph 1**

****Graph 2Chart, bar chart, histogram

Description automatically generatedGraph 3Chart, bar chart, histogram

Description automatically generated

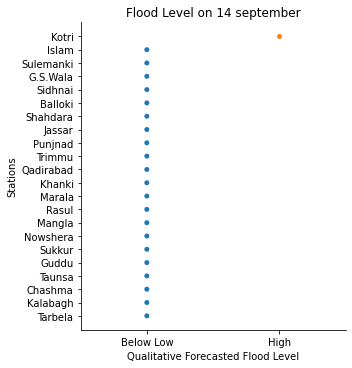
**Analysis and Insights:**

This analysis Shows that maximum of the water is in kotri station there is a difference of 100 of PST observation in each graph that represents that water in this station is decreasing and situation is becoming normal.

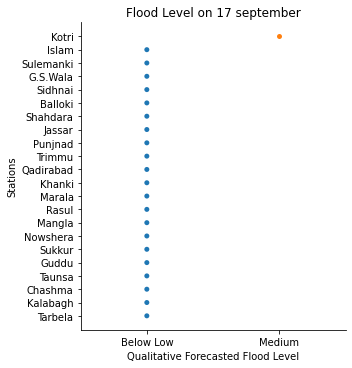
**2\_ Qualitative Forecasted Flood**

**Plots:**

**Graph\_1**

****

**Graph\_2**

****

**Graph\_3**

**Shape, rectangle

Description automatically generated**

**ANALYSIS** **and Insights:**

Above three graph shows flood level Risk on 14,17,19 September 2022.

From above three graphs it can be concluded that there was risk of flood because of water in kotri Station but this risk is decreasing day by day, water level is coming to normal. Beside that all other stations have normal water level; they are out of danger of flood.

**SECTION 2**

In this Section I have done analysis of side effects that are caused due to flood.

**Part1)**

Reprsentation of Damages and Reconstruction Cost in Different SECTORS that is caused because of massive Flood.

**Graph:**

**Chart

Description automatically generated**

**Analysis:**

This Graphs shows Damage and Reconstruction Cost of Various Sectors. We can drive that damage and reconstruction cost of most of the sectors is below 500USD.

However, housing sector has damage and reconstruction Cost is about 1000USD.

Highest Damage is in Fisheries Sector, but its reconstruction Cost is less than the damage Occurred.

**Note:** In the graph Energy, Health, Education, Water Supply, Environment and Governance sectors have very poor visualization as they are in very small amount, so they are unable here to visualized independently. Because of this Reason I have plotted them separately.

**Below are their Graphs:**

**1)** Chart

Description automatically generated

Chart, bar chart

Description automatically generatedChart

Description automatically generatedGraph:2,3

Chart, bar chart

Description automatically generated**Graph 4,5**Chart, bar chart

Description automatically generatedChart

Description automatically generatedA picture containing logo

Description automatically generated**Graph:6,7**

**PART 2)**

IN part 2 I have Represented Crop AREA DAMAGED IN Different Provinces.

**Plot1)**

**Chart

Description automatically generated**

**Analysis**: In Balochistan **Rice** is the major crop that is **affected** because of flood.

**Plot2)**

**Chart

Description automatically generated**

**Analysis**: In Sindh **Cotton** is the major crop that is **affected** because of flood.

**Part 3)**

* This part of Assignment Represents the direct damage in:
* Distribution
* Transmission
* Total Power
* oil and Gas

**PLOT:**

**Chart

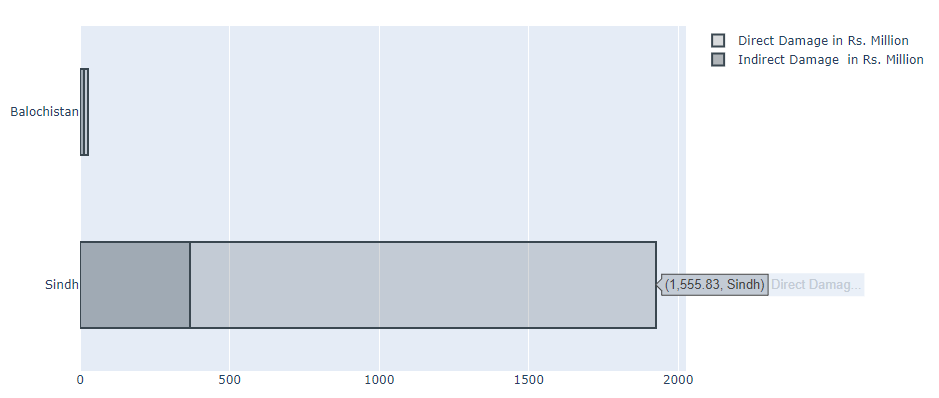
Description automatically generated**

**Analysis:**

**Maximum** damage is in **Power** Sector. Whereas **minimum** damage is in **Transmission** Sector.

**PART 4)**

**It represents overall Direct and Indirect Damages in Provinces.**

**PLOT:**

**Analysis:**

Direct and indirect damage in Sindh is more as compared to Balochistan.

**PART 5)**

**In this part Recovery and Reconstruction Needs Assessment Summary is plotted.**

**PLOT 1:**

**Chart, bar chart

Description automatically generated**

**Analysis:** In this analysis Rehabilitation Cost in Sindh is more as compared to Capacity Building cost.

**PLOT 2:**

**Chart

Description automatically generated**

**ANALYSIS:** In this analysis Rehabilitation Cost in Balochistan is more as compared to Capacity Building cost.

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