

Example of hydrographs of flooding on the Indus river, Pakistan, 2010 case study

[Environment](#), [Water](#)



Question 1

The type of flood occurred at Tarbela Dam around July 29th was an overbank flooding; the high precipitations filled the river Indus, the water within the river reach peak discharge and overflows its river banks and spreads across the surrounding areas.

Question 2

The Chashma Barrage experienced twenty five floods as outlined below.

28-Jul-10 643. 30

29-Jul-10 645. 40

30-Jul-10 640. 30

31-Jul-10 640. 00

1-Aug-10 640. 00

3-Aug-10 640. 00

4-Aug-10 640. 00

5-Aug-10 641. 00

6-Aug-10 641. 00

7-Aug-10 640. 40

8-Aug-10 640. 00

9-Aug-10 640. 00

10-Aug-10 639. 20

11-Aug-10 639. 00

12-Aug-10 639. 00

13-Aug-10 639. 00

14-Aug-10 640. 00

15-Aug-10 641. 00

16-Aug-10 642. 00

17-Aug-10 642. 00

18-Aug-10 642. 50

19-Aug-10 642. 50

20-Aug-10 643. 00

21-Aug-10 643. 00

22-Aug-10 643. 00

Question 3

The peak discharge at Taunsa was at an inflow of 96000 cusecs in august second. This was the highest inflow between July and august 2010

Question 4

Guddu barrage experienced overbank type of flood. This is because overbank flood occurs as a result of the river overflowing its bank and spread the water on the regions around it.

Question 5

The spikes on the Taunsa Barrage hydrograph was due to changes in the rhythm of water flow in the river. Water flow climbed in some instances casing long spikes while the short spikes represented low flow of the water. The spikes could be referred as short term variations that may be caused by the rainy season. Therefore, the spikes were as a result of precipitation in the form of rain around the area.

Question 6

The flood occurred earlier in Tarbela Dam than in Guddu Barrage because river Indus flows in direction from Tarbela dam down to Guddu Barrage. The flood shape and inflow change, from one location to another, because of the different volume and level of water. This is because, more water flows into the river as it flows downwards.

Works Cited

Albinia, Alice. *Empires of the Indus: The Story of a River*. New York, N. Y: W. Norton & Co, 2010. Print.