Recent Developments in Pakistan



Figure 1: Pakistan

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Transmission Line Project

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Water shortfall

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Reported Development at 765 Kv Transmission Line Project

Rizwan Mirza, CE

Editor-in-chief

Harbin Electric International Company Limited (HEI) is the contractor for one part of 255 Km, 765 kV Double-circuit Dasu-Islamabad Overhead Transmission Line Project of Dasu Hydropower Project, Lot-2 (Mansehra-Islamabad). In the backdrop of recent terrorist attacks targeting foreign construction workers, HEI has issued a force majeure notice, according to news reports, quoting well-informed sources.

It may be recalled that on 26th March, 2024, a suicide bomber, with explosives-laden car, blew up a bus carrying construction staff of Dasu power project, near Besham.

The death toll was five (5) foreign nationals and one (1) Pakistani national.

Delay of the project behind the schedule, agreed with the World Bank, may not be ruled out, it is feared. Restrictions on movement of workers could be another fallout, according to media reports. According to news reports, it has been suggested by the contractor that the project may slow down may ultimately be stalled.

The Dasu Transmission Line (DTL) Project, is being developed by the National Transmission & Despatch Company (NTDC), with funding from the World Bank (WB).

The Project comprises a 255 Kilometres (Km) long, 765 kilovolt (KV), double-circuit transmission line, from the Dasu Hydropower Project, starting at Dasu substation, to the proposed Mansehra substation, and then to Islamabad West substation.

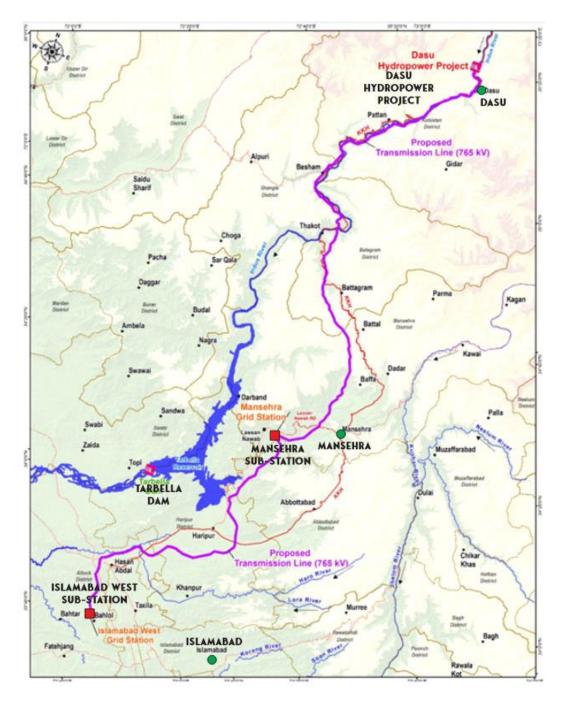


Figure 2: Dasu transmission line project - laayout plan

World Bank Report No. 80488-PK, dated May 14, 2014, reveals the cost of the project as 350 Million US\$ to serve two phases i.e. the installed capacity of 2,150 MW.

The Dasu-Mansehra stretch comprises Lot-1 of the project, which is 157 km long and has 406 towers. The Mansehra-Islamabad West stretch comprises Lot-2 of the project, which is 98 Km long and has 276 towers. About two-third towers are expected to be line towers, with the remaining one-third being angle or tension towers.

Sinohydro Corporation is the Contractor for Lot-1, while Harbin Electric International Company Limited, is the contractor for Lot-2.

The Project Director has sought legal opinion, from Chief Law Officer, about the *force majeure* letter received, it has been reported.

It is important to note that the terrorist attack took place at Besham, which is quite far from the Lot-2 work. The legal overtones of claiming *force majeure*, under these circumstances may be farreaching and may not be a good omen for Pakistan.

While we are not privy to the specific terms and conditions of the construct between the parties, the relevant part of the Standard Form of Bidding Documents June 11, 2007, issued by the Pakistan Engineering Council, reads as follows:

20.4 Employer's Risks

The Employer's risks are:

Delete the text and substitute with the following:

- a) insofar as they directly affect the execution of the Works in Pakistan:
 - i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - ii) rebellion, revolution, insurrection, or military or usurped power, or civil war,
 - iii) ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
 - iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
 - v) riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works;
- b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;
- c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
- d) any operation of the forces of nature (insofar as it occurs on the Site) which an experienced contractor:
 - i) could not have reasonably foreseen, or
 - ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - a) prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - b) insure against.

We are not aware if this is the form that has been adopted for the construction contract. Since we are not in possession of the reported letter, it is neither possible to nor advisable to speculate which sub-section and clause of the contract has been invoked by the contractor and why specifically the generic term of *force majeure* has been adopted, if at all this phrase has been used, as has been reported in the press.

Expected Shortage of Irrigation Water

Rizwan Mirza, CE Editor-in-chief

According to news reports, Pakistan faces a 30 percent water shortage at the start of the sowing season for *kharif* crops, as determined by The Indus River System Authority (IRSA).

IRSA said that the deficit would be caused by a winter snowfall in Pakistan's northern glacier region, which is lower than what would be considered normal. This would affect catchment areas of the Indus and Jhelum Rivers that are used for irrigation.

Kharif crops, or monsoon crops, including rice, maize, sugarcane and cotton are sown in April and require a wet and warm climate with high levels of water.

Lower snow-melt would, therefore, adversely affect the water-hungry *kharif* crops, this summer.

The silver lining would be the arrival of monsoon rains, arrive later in the season.

Pakistan – the world's fifth largest country with a population of more than 250 million – has already been declared a water-stressed country. At the same time, it continues to struggle with the effects of climate change, which includes shifting and unpredictable weather patterns.

It is pertinent to note that agriculture contributes about one-fourth to the country's gross national product (GDP). Any negative impact on its agriculture, therefore, has a direct impact on its food security as well as economics. Pakistan's agriculture sector contributes around 23 percent to the GDP and employs 37.4 percent of the national labour force. About 70 percent of Pakistan's exports are directly or indirectly derived from agriculture.

Backgrounder

Covering an area of 30.5 million hectares, about 47 percent of the national land is agricultural land, higher than the global average of 38 percent. In the agriculture sector, livestock has an overwhelming contribution of 62 percent, followed by important crops (4.1 percent), other crops (3.3 percent), forestry (0.5 percent) and fisheries (0.3 percent).

water availability of 72.7 MAF. More than 82 percent of the cultivated land is irrigated, and 18 percent is rainfed. About 60 percent of the rainfed areas are used for growing winter-season crops like wheat, barley, gram, lentils, rapeseed, and canola mustard.

The two major staple crops are wheat and rice, accounting for 37 and 11 percent of the total crop area, respectively. Sugarcane and cotton are the two major cash crops, contributing 0.9 and 0.3 percent of the GDP, respectively. Pakistan has an estimated livestock population of 225 million with a value addition of PKR 5.5 trillion in 2023.

Pakistan is the 5th largest milk producer with a gross annual production of 67 million tonnes. Due to a large livestock population, Pakistan also fetches USD 950 million in leather exports, making it the 4th largest leather apparel exporter.

Devastating floods in 2022 – which scientists linked to climate change – affected more than 30 million people and severely impacted Pakistan's cotton crop that year.

> There are two principal crop seasons in Pakistan, namely the "Kharif", the sowing season of which begins in April – June and harvesting during October – December; and the "Rabi", which begins in October – December and ends in April – May.

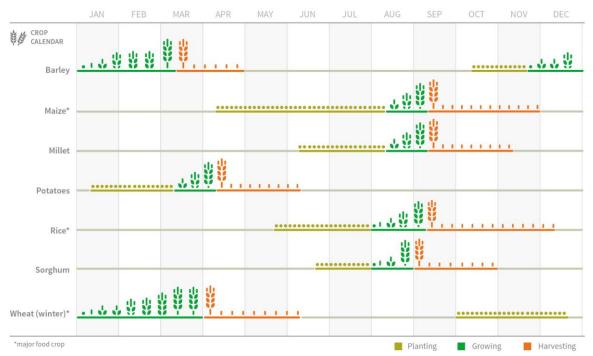
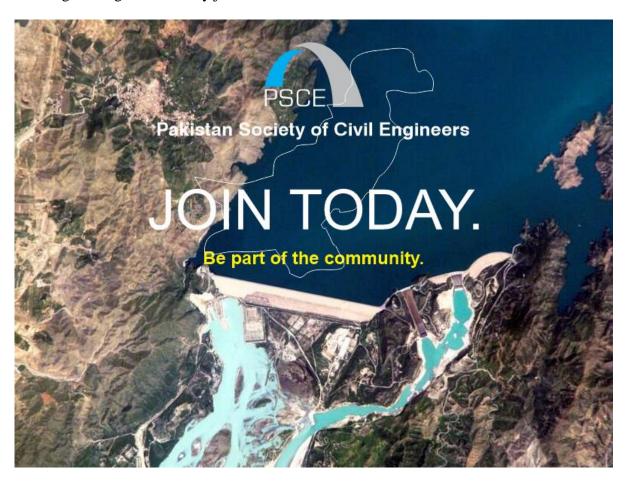


Figure 3: Crop calendar of Pakistan

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