CHAPTER-5

CONCLUSIONS

On the basis of present study, the following can be concluded in respect of the three identified engineering aspects of the interstate river water disputes.

5.1. AVAILABILITY OF WATER

To determine as to what length of flow-series and how much dependability of a river flow should be adopted, two set of studies (direct series and reverse series) have been carried out by taking the monthly discharge data of three rivers of Indus basin i.e. Ravi, Beas and Sutlej for the period 1921-91. The results obtained indicate that in both types of studies for all the three rivers, average inflows become fairly constant if flow-series longer than 40 years is considered. The standard deviations for the data of direct series are too high; whereas these are fairly low for the reverse series. Also, while considering dependability of these flows, the flow-series of length less than 40 years gives inconsistent results. Hence, it is reasonable to take a flow-series of at least 40 years. As the later time data differs from the earlier time data, the later data should be considered first, if a lengthy available data is to be analysed. Further, in both the flows available at 50%, 75% and 90% dependability have been calculated. At 50% dependability, the calculated figures of availability are too high and at 90% dependability,
the calculated figures are too low. Hence, it is reasonable to adopt 75% dependability. Thus, taking the length of flow-series as minimum 40 years and 75% dependability, a fair amount of judgement can be made about the availability of interstate river waters.

5.2. REQUIREMENT OF THE PARTNER STATES

The requirements can be calculated by dividing the entire area of a state into number of smaller project areas where the same water-allowance and intensity of irrigation are given. The requirements of each of the smaller areas are calculated and summed up to get the requirement of the project and similarly of each state, keeping in view a suitable selection of parameters.

The requirements of Haryana state have been calculated by dividing the CCA into 15 projects, applying a suitable water-allowance and intensity of irrigation to each of these areas. By summing up these requirements, the requirement of the entire state has been calculated. The requirement so calculated is quite reasonable and takes care of the basic falasy in the methodology adopted by the Ravi-Beas Waters Tribunal of adopting the same parameters for the entire area of the state while making an estimate of the requirements of the states.

5.3. APPORTIONMENT

Various principles developed at the international level to decide the matters relating to regulation of rights
of different riparian owners are identified. It is found that in the Indian context the doctrine of equitable apportionment should apply to the allocation of interstate rivers. This can be made as a law with suitable amendment in the Inter-state Water Disuptes Act, 1956.