Relation between water flow and sediment in the middle reach of the Yellow River

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Abstract The analysis of the relationship between water and sediment can provide robust technical support for conjunctive regulation of water and sediment in the Yellow River. To solve the sediment problem in the middle and lower reaches of the Yellow River, scientific regulation of water and sediment in the middle reaches is an effective measure. Water flow and sediment frequency in the middle reach of the Yellow River are evaluated, and the corresponding frequency curve for conjunctive regulation of water and sediment are established. At the same time, the frequency range of water and sediment is explored, and the combination of the annual water and sediment runoff from 1965 to 2002 are quantified. Finally, the problems for further study are presented.

Key words Yellow River; sediment frequency; relation between water flow and sediment; combination of annual water and sediment