IMPACT OF ROGUN DAM ON DOWNSTREAM UZBEKISTAN AGRICULTURE

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The natural resources management in Central Asia is facing significant challenges due to the increasing demand for water resources. This is particularly true for the Tajikistan-Uzbekistan water dispute, which has been exacerbated by the construction of the Rogun Dam on the Vakhsh River, a tributary of the Amudarya River. The planned height of the dam is 335 m (1099 ft), and its construction began in 1976 but was stopped in 1991 due to the breakup of the former Soviet Union. The intent of the dam is to supply Tajikistan with energy, but it will have significant impacts on downstream states, especially Uzbekistan. The focus of this study is to estimate the monetary impacts of the Rogun Dam and propose mitigation measures to minimize the negative consequences. The study investigates the nature and extent of these impacts and suggests policy implications to reduce water shortages and economic loss in agriculture. If Uzbekistan changes its current water use practice and increases water use efficiency, the future water shortage during irrigation periods will not as seriously affect the country's economy, as adaptive management measures could cut the losses by 40%.