

Case Study

Kosi Project – Downstream riparian responsible for construction and operation of infrastructure, sharing of power generated

Kosi River Basin



Basin area

69,300 km²

Riparian countries

- China (upstream)
- Nepal (midstream)
- India (downstream)

Main treaty/organisation

- Kosi Agreement (1954, amended 1966)
- Established the Coordination Committee for Kosi Project

Members to agreement

India, Nepal

Case study dams

- Kosi Project (barrage 20MW /embankments), 1963,
- Sapta Kosi High Dam, 3,000MW, planned for 2013

Main goals of the project

- Flood control
- Hydropower
- Irrigation

Main mechanisms

- Nepal had the right to obtain up to 50% of the hydroelectric power generated by India at fixed tariff rates.
- Compensation payments for losses/damages/used material due to the project/inundation
- Payment of royalties for generated power

Cooperation background

- India and Nepal have both been interested in exploiting the high potential that Nepalese water resources provide for hydropower generation and irrigation. Since Nepal has limited capacities to develop its water resources, India supported Nepal financially and technologically, though with limited success. Major flood events have repeatedly triggered cooperation.
- In 1954, the Kosi Agreement covering the Kosi Project (barrage and embankments) was signed (amended in 1966). The project was planned to reduce the devastating floods in this area, to anchor the wayward of the riverbed that had migrated tremendously in the last 250 years, and to generate hydropower.
- Bilateral cooperation between Nepal and India on water resources management has further taken place, e.g. within the framework of the Gandak irrigation and power project (agreed 1959) and the 1996 Mahakali Treaty on the construction of the multipurpose Pancheswar Dam.
- In the beginning of the 2000s both countries further agreed on joint field investigations, studies and the preparation of project reports for the Sapta Kosi High Dam Multipurpose Project and the Sun Kosi Storage-cum-Diversion Scheme, which are additional elements to the earlier Kosi Project.
- To manage the common water resources of both countries, a three tier mechanism at the level of Ministers, Secretaries and technical staff was established in the last decade.



Source: South Asia Network on Dams, Rivers and People



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Joint planning and dam management mechanisms

- The amended Kosi Agreement provides that any construction and other undertaking by India in connection with the Kosi Project need to be planned and carried out in consultation with Nepal. Also, a prior approval of Nepal is required.
- The Government of the Indian State of Bihar was designated as the Chief Engineer of the Kosi project. Thus, India was responsible for the design, construction and operation of the barrage/embankments. The Government of Bihar constituted the Kosi High Level Committee to implement the Kosi Project (barrage and embankments).
- Moreover, a Coordination Committee was established to manage the Kosi Project (barrage and embankments).
- In 2004 a Joint Project Office (JPO) was set up to carry out pre-feasibility studies for the planned Sapta Kosi High Dam.

Specific provisions/measures

Cost and benefit sharing

- Nepal had the right to obtain up to 50% of the hydroelectric power generated by India in any power house in the vicinity of the barrage. The tariff rates for electricity for Nepal were fixed later in a mutual agreement. However, due to the heavy silt production by the river the barrage produced energy only for a short period.
- Nepal received royalties at agreed rates for power generated with water from the barrage and utilized in India. No royalties were paid for the power sold to Nepal.
- India paid compensation for the loss of lands, houses and/or other immovable property flooded or damaged by the Kosi project (barrage/embankments) as well as for material from Nepalese territory used by India for construction or maintenance of the project.
- India also constructed transmission lines to the Nepal-Indian border for the transfer to Nepal of power generated in India.
- The Nepalese land on which the project was built is leased to India for a period of 199 years at an annual nominal rate.

Imprint:

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