CES
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NEPAL

MIDDLE MARSYANGDI HYDROELECTRIC PROJECT

Client	Nepal Electricity Authority, Durbar Marg, Kathmandu, Nepal
Financing	Kreditanstalt für Wiederaufbau (KfW)
Duration of Services	1999-2007
Cost of Implementation	173 Mio US-$

Scope of Services

- Hydrological studies on water availability, design floods including glacier lake outburst floods (GLOF) and sediment loads
- Geological investigations for all parts of the scheme
- Hydraulic and structural design of the works
- Preparation of tender documents
- Assistance during tendering, bid evaluation and award of contract
- Supervision during construction, acceptance tests and commissioning

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Brief Project Description

The Middle Marsyangdi Hydroelectric Plant located on the middle reach of the Marsyangdi River some 40 km upstream of the existing Lower Marsyangdi Hydropower Plant, is designed as a run-of-river plant with an upstream daily storage pond.

With a gross head of 120 m and a design discharge of 80 m³/s, the installed capacity is 76 MW (2 Francis turbines of 38 MW each).

The average annual energy output amounts to 470 GWh of which 280 GWh are firm energy.

The main features of the scheme comprise an intake weir including the gated spillway of 4,700 m³/s spilling capacity and a lateral rockfill dam, an underground de-sander, a headrace tunnel of 5.5 km length, a 470 m long steel penstock, a shaft powerhouse and a short tailrace tunnel / channel.

The consultancy services embrace the revision of the existing feasibility study, the final design and tender preparation, the assistance during tendering, bid evaluation and award of contract, and the construction supervision.

Essential data on project

Location: Central section of the Marsyangdi river, located approximately to 160 km to the northwest of the Katmandu capital on the foot of the hill Manaslu Himal.

Intake weir:	4.700	m³/s
Design discharge	80	m³/s
Gross head	120	m
Average annual energy output	470	GWh
Installed capacity	76	MW
Headrace tunnel	5500	m
Steel penstock	470	m
Total project costs:	173	Mio. US$
Construction period:	2001 a 2007