

Project Summary

Location:

District: Yawan
District Center: Yawan
 N:37 32 360
 E:070 26 676
 Elevation: 1,438 masl

Supply Area: Yawan

Water Source:

Yawan River; minimum flow > 3 m³/s

Accessibility: via off road during 8 months; distance to Faizabad: 88km

Technical Description:

The run-off the river project comprises of a 200 m wide weir of 1 m height. The water is conveyed via a 2,8 km long headrace canal to the forebay. With a gross head of 70 m and a nominal discharge of 3m³/s the capacity is about 1MW.

The power is transmitted via a 78 km long 20 kV transmission line and distributed via a 0.4 kV network. Houses are connected via service cable and equipped with electronic meter and RCBOs.

Socio-Economy

- Number of population: 14,000 (7,000 in center)
- Number of households: 3,000 (4.7 persons/household)
- Number of houses: 1,600 (1.9 households per house)

The Bazaar is located in the center of district and comprises of 450 shops, 78 Mosques, 20 schools, 10 offices, 20 government buildings, 4 health facilities (hospital and clinic), 1 veterinary clinics, and a number of workshops.

Area Supplied

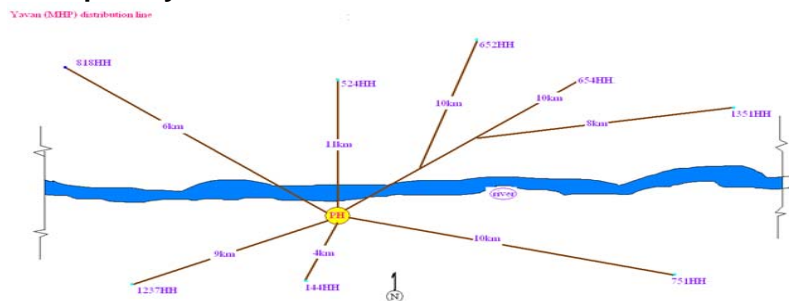
The following villages/hamlets will be connected to the supply system: Capital, Ser e pol, Saed abad, Kajee khoom, Jahad abad, Bostan, Aelak, etc

Environmental Aspects

The Yawan river is perennial. A fish pass is required to allow fish migration.

The project will have no negative impact to houses, land and irrigation.

Principal Lay-Out



Afghanistan

Yawan

Hydropower Project

Site Reconnaissance

Project Name

Rural Electrification Concept
 Badakhshan Province

Number of people supplied

14,000 plus Bazaar

Estimated Costs

3.95 mill US\$; 7,900 US\$/kW; 282 US\$/person

Technical Details

Turbine capacity	500 kW
Rated head	70m
Rated flow	1 m ³ /s
Turbine type	Pelton/Francis
Planning and construction time	18 months



Yawan (MHEP)

Survey implemented by:



Department of Water Management
 For the Energy Working Group
 under the PDC in Badakhshan
 October 2009



- Legends**
- Load Centres
 - Power House
 - ↪ Intake
 - Transmission line

Scale: As Shown

Renewable Energy Supply for Rural Areas (ESRA)	
Rural Electrification Concept, Boddishan Province	
Yawan Hydropower Project	Step Page Drawing no.
Google Image of the Project Area	08/05
Aerial View	INTEGRATION environment & energy development - 08/05/05