

SALIENT FEATURES OF THE PROJECT

General Information

Project Name:	Belghari Community Based Solar Drinking Water Project
District:	Ramechhap
VDC:	Rakathum
Ward no:	2
Name of villages served:	Sharki tole, magar tole
Road Head:	Kathmandu - jhagajholi 65 km all weather road
Distance from road head to site:	Near site

Design Information

No. of households:	45
No. of school:	0
Present population:	401
Present school population:	65
Per capita daily demand:	25 lpcd
Per capita school demand:	5 lpcd
Total water demand:	10,350 lpcd
Pipe Line Length (Distribution):	60 m
Pipe line length (Transmission):	550 m
Total Head:	136m (Including 10% head loss)
Autonomy days:	1.5 days
Electrical cable length:	40m

Water Source Information

Name of source:	Sunkoshi
Type of source:	River
Source quality:	Drinkable after filtration
Date of discharge measurement:	2014-01-07 (2070/09/22)
Method of measurement:	V-notch method
Measured discharge:	9.24 lps
Safe yield:	7 lps

Structure Information

Civil Structure (Stone Masonry)

Slump well	1no,16 m ³
Distribution tank:	1no, 14 m ³
Tap stand:	8no
No. of thrust block:	8 nos

Pipe Line

HDPE Pipe 40mm 10kg/cm ² :	350m
HDPE pipe 25 mm (10kg/cm ²):	60m
GI pipe medium duty 1.5":	200m

Electro-mechanical (estimated)

Array Solar PV module:	(with array mounting)
Pump:
Distance between Solar Array and the Pump	40m
Cable size (3% voltage drop):	...sq.mm (armor type)
Surge Protector / Lightning arrestor	As Required
Grounding and Protection	As Required
Circuit Breaker	As Required

