

SALIENT FEATURES OF THE PROJECT

General Information

Project Name:	Maahang Kaali Solar Lift Drinking Water Project
District:	Ramechhap
VDC:	Bhirpaani
Ward no:	7
Name of villages served:	Maghi Tole
Road Head:	Kathmandu – Dafkhaa , 96 km, 30km blacktopped road along Araniko Highway & 66 km blacktopped road along BP highway.
Distance from road head to site:	1km (about 15 minutes of walk)

Design Information

No. of households:	45
No. of school:	1
Present population:	365 (Base Year: 2014)
Present school population:	55
Total water demand:	11,175lpd
Pipe Line Length (Distribution):	300m
Pipe line length (Transmission):	350m
Total Head:	120m
Autonomy days:	1.5 days
Electrical cable length:	25m

Water Source Information

Name of source:	Sunkoshi
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Type of source:	River
Source quality:	Drinkable after filtration
Date of discharge measurement:	2014-08-08
Method of measurement:	V-notch method
Measured discharge:	9.24 lps
Safe yield:	7 lps

Structure Information

Civil Structure (Stone Masonry)

Slump well	1no, 138m ³
Distribution tank:	1no, 24m ³
Tap stand:	1 Nos
No. of thrust block:	10 nos

Pipe Line

HDPE Pipe 50mm 10kg/cm ² :	170m
HDPE pipe 25 mm (10kg/cm ²):	300m
GI pipe medium duty 2":	180m

Electro-mechanical (estimated)

Capacity of Solar Array (WP) :	As required
Pump:	Any Pump/s that can lift water demand of 11175 liter per day at head of 120 m
Distance between solar array and pump:	25m
Lightning Arrestor:	As required
Surge Protector:	As required
Grounding:	As required
Circuit Breaker:	As required
Cable size (3% voltage drop):	As Required
