

## SALIENT FEATURES OF THE PROJECT

### General Information

Project Name:	Kothape Rural Solar Drinking Water Project
District:	Ramechhap
VDC:	Rakathum
Ward no:	1
Name of villages served:	Maghi Tole
Road Head:	Kathmandu – Khaireni , 30km blacktopped road along Araniko Highway & 58km blacktopped road along BP highway.
Distance from road head to site:	1km, crossing the Sunkoshi River, about 20 Minutes of walk

### Design Information

No. of households:	51
No. of school:	1
Present population:	369 (Base Year: 2014)
Present school population:	36
Total water demand:	21150 Lpd
Pipe Line Length (Distribution):	100 m
Pipe line length (Transmission):	350m
Total Head:	122m
Autonomy days:	1.5 days
Electrical cable length:	80 m

## Water Source Information

Name of source:	Sunkoshi
Type of source:	Perennial River
Source quality:	Drinkable after filtration
Date of discharge measurement:	2014-08-14
Method of measurement:	V-notch method
Measured discharge:	9.24 lps
Safe yield:	7 lps

## Structure Information

### Civil Structure (Stone Masonry)

Slump well	1no, 138 m <sup>3</sup>
Distribution tank:	1no, 24 m <sup>3</sup>
Tap stand:	8 nos
No. of thrust block:	10 nos

### Pipe Line

HDPE Pipe 50mm 10kg/cm <sup>2</sup> ):	170m
HDPE pipe 25 mm (10kg/cm <sup>2</sup> ):	100m
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 21150 liter per day at head of 122 m
Distance between solar array and pump:	80m
Lightning Arrestor:	As required
Surge Protector:	As required
Grounding:	As required
Circuit Breaker:	As required
Cable size (3% voltage drop):	As Required