

SALIENT FEATURES

General Information

Project Name:	Gairebari Rural Solar Drinking Water Project
District:	Ramechhap
VDC:	Dimpokhari
Ward no:	5
Name of villages served:	Simpani
Road Head:	Kathmandu Dhulikhel - Khairne; 82 km all weather road + Khairne-Galva; 23 km fair weather road
Distance from road head to site:	3 km, 30 min walks

Design Information

No. of households:	28
Present population:	161
Total water demand:	9135 lpcd
Tap post distance from distribution tank:	132 m
Pipe line length (Transmission):	500 m
Total Head	138 m
Autonomy days:	1.5 days
Electrical cable length:	75 m

Water Source Information

Name of source:	Gairebari kholsi
Type of source:	Spring
Source quality:	Drinkable directly
Date of discharge measurement:	2015-01-04 (2071/09/20)
Method of measurement:	Bucket method
Measured discharge:	0.35 lps

Safe yield: 0.31 lps

Structure Information

Civil Structure (Stone Masonry)

Intake:	1no
Filter:	1no
Collection tank with pump house:	1no, 10 m ³
Distribution tank:	1no, 15 m ³
Tap stand:	1no
No. of thrust block:	5 nos

Pipe Line

HDPE Pipe 40mm 10kg/cm ² :	300m
HDPE pipe 16mm (10kg/cm ²):	132m
GI pipe medium duty 1.5":	200m

Electro-mechanical (estimated)

Capacity of Solar Array (WP) :	As required
Pump:	Any Pump/s that can lift water demand of 9135 liter per day at head of 138 m
Distance between solar array and pump:	75 m
Lightning Arrestor:	As required
Surge Protector:	As required
Grounding:	As required
Circuit Breaker:	As required
Cable size (3% voltage drop):	As Required