



Welcome and Namaste



Prosperity and Development through Hydropower development



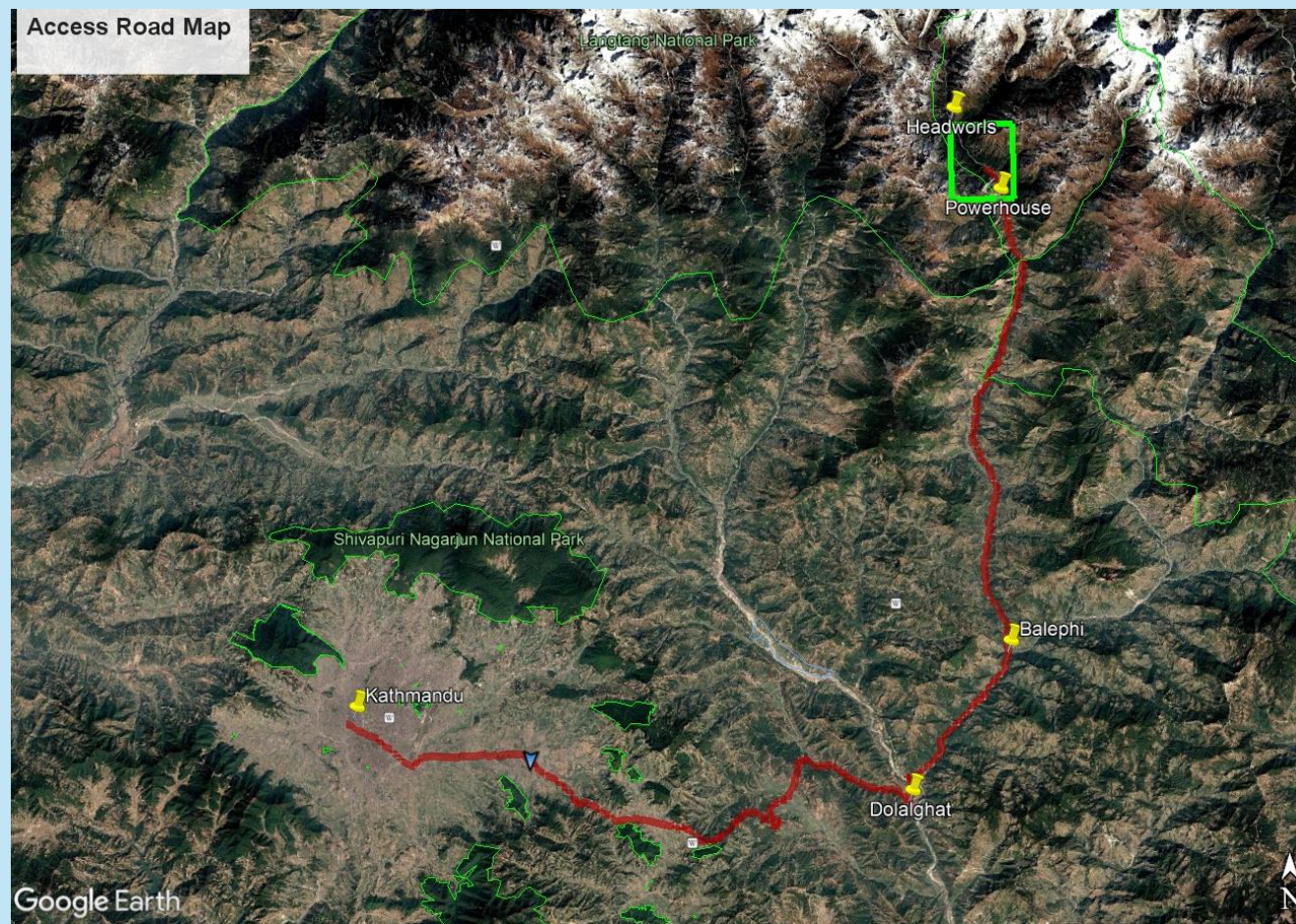
Our Projects



Brahmayani Hydroelectric Project, 45 MW
Upper Brahmayani Hydroelectric Project, 19 MW
Brahmayani A Hydroelectric Project, 9.7 MW



Accessibility to Project Site

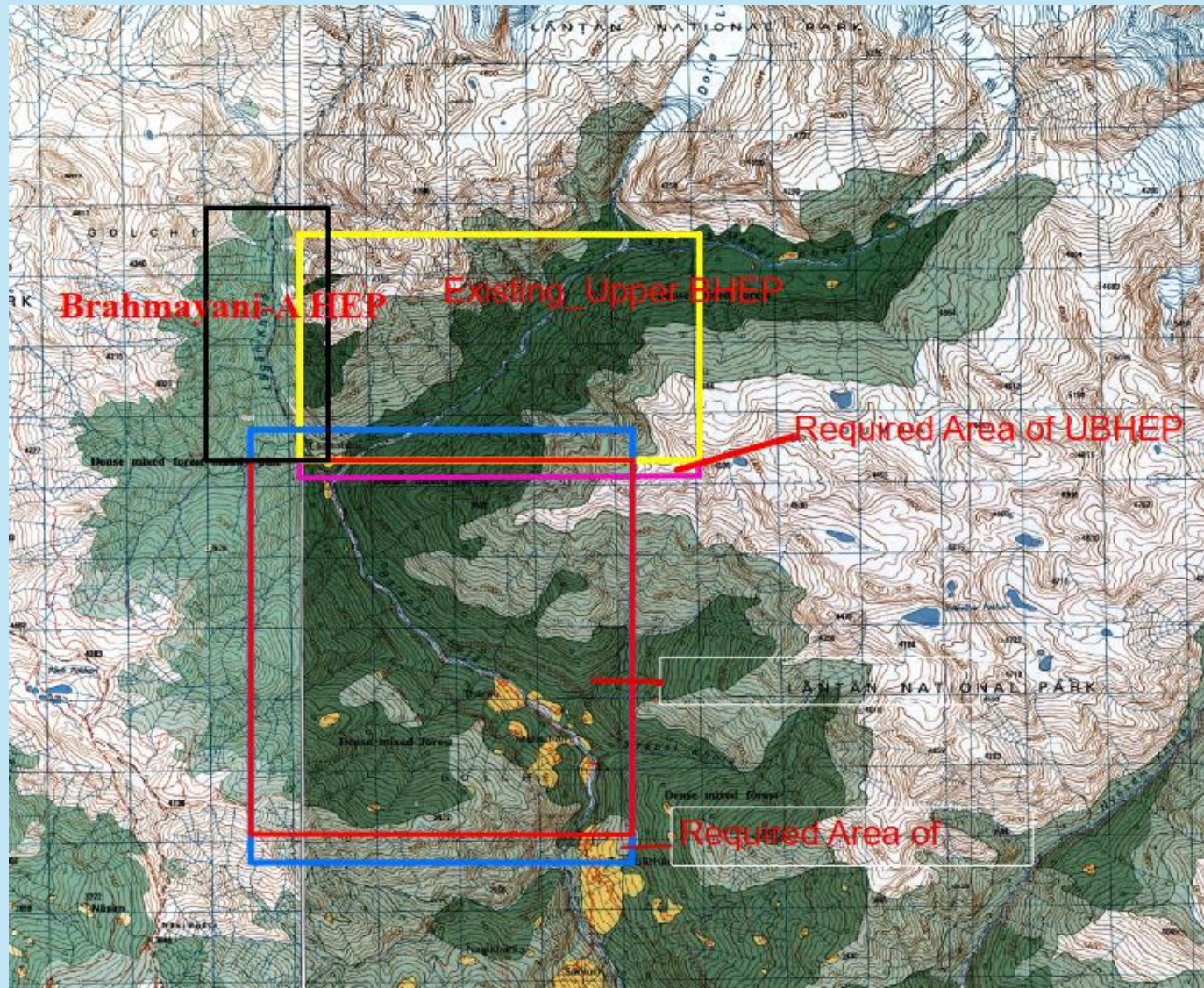


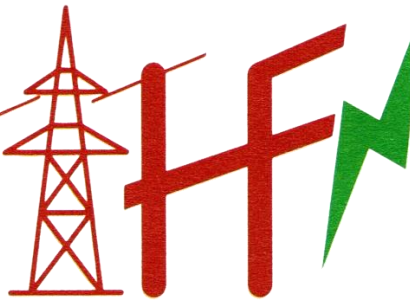
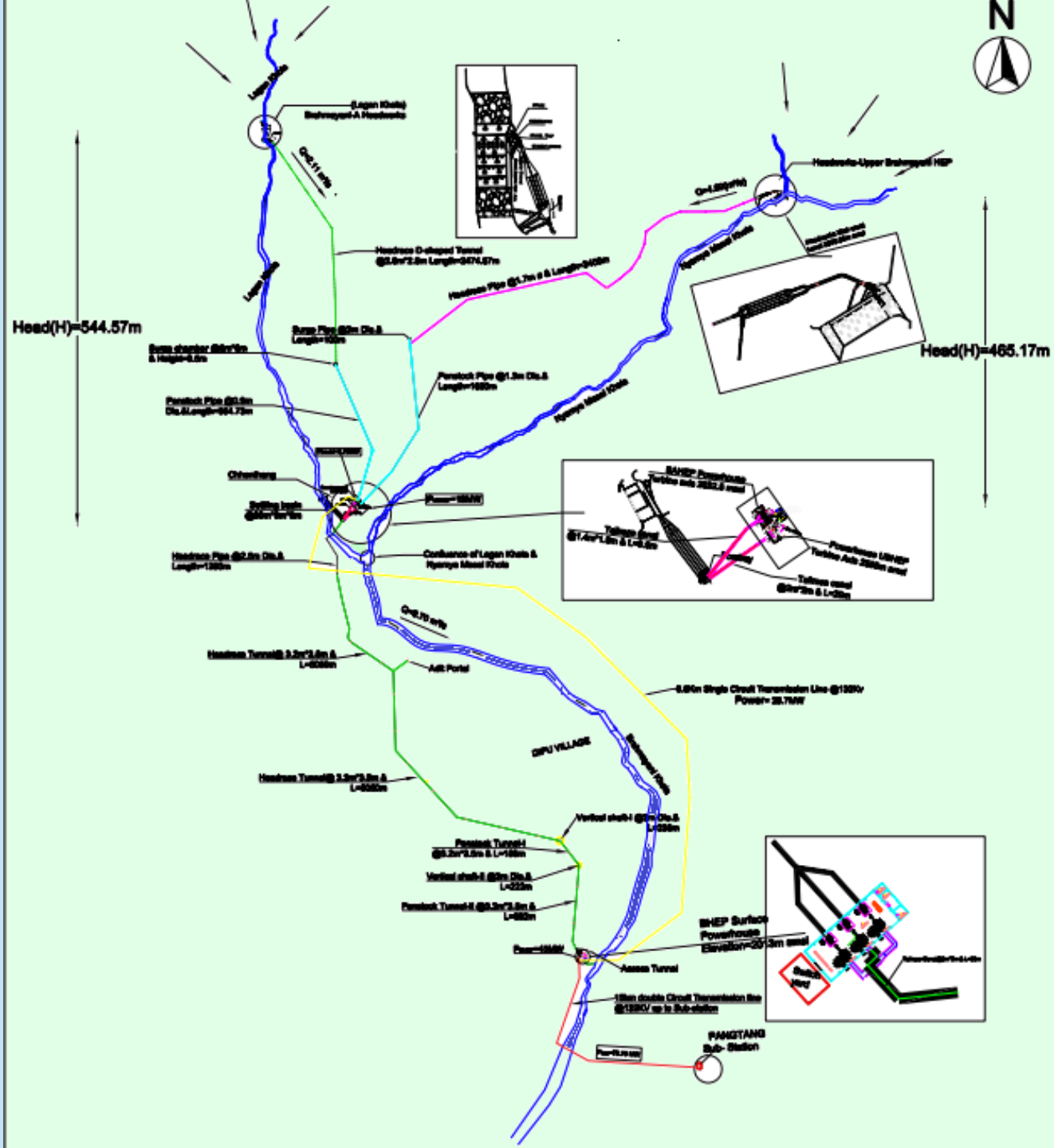
From	To	Distance, km	Remarks
Kathmandu	Balephi	71	Black Topped Road (Araniko Highway)
Balephi	Gumbathan	35	Gravel Road
Gumba than	BHEP Powerhouse Site	14	Gravel Road
BHEP Powerhouse Site	Dipu village	2.5	Gravel Road
Dipu village	BHEP Headworks Site	7.3	Under Construction
BHEP Headworks Site	Upper BHEP Headworks site	5.0	Under Construction
Total		129.8 km	

Projects in Balephi Basin

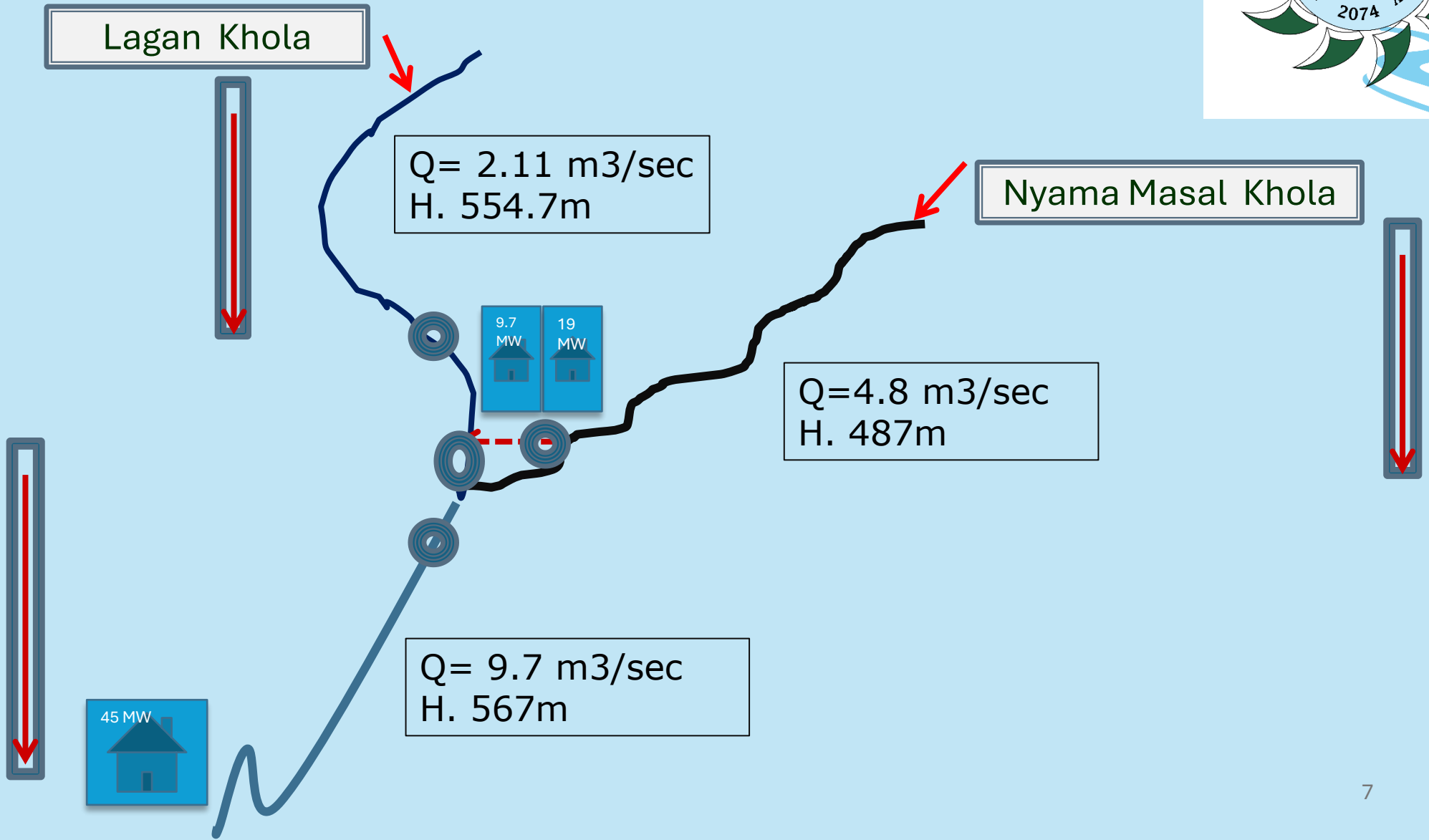


Allocated Boundary of Three Projects

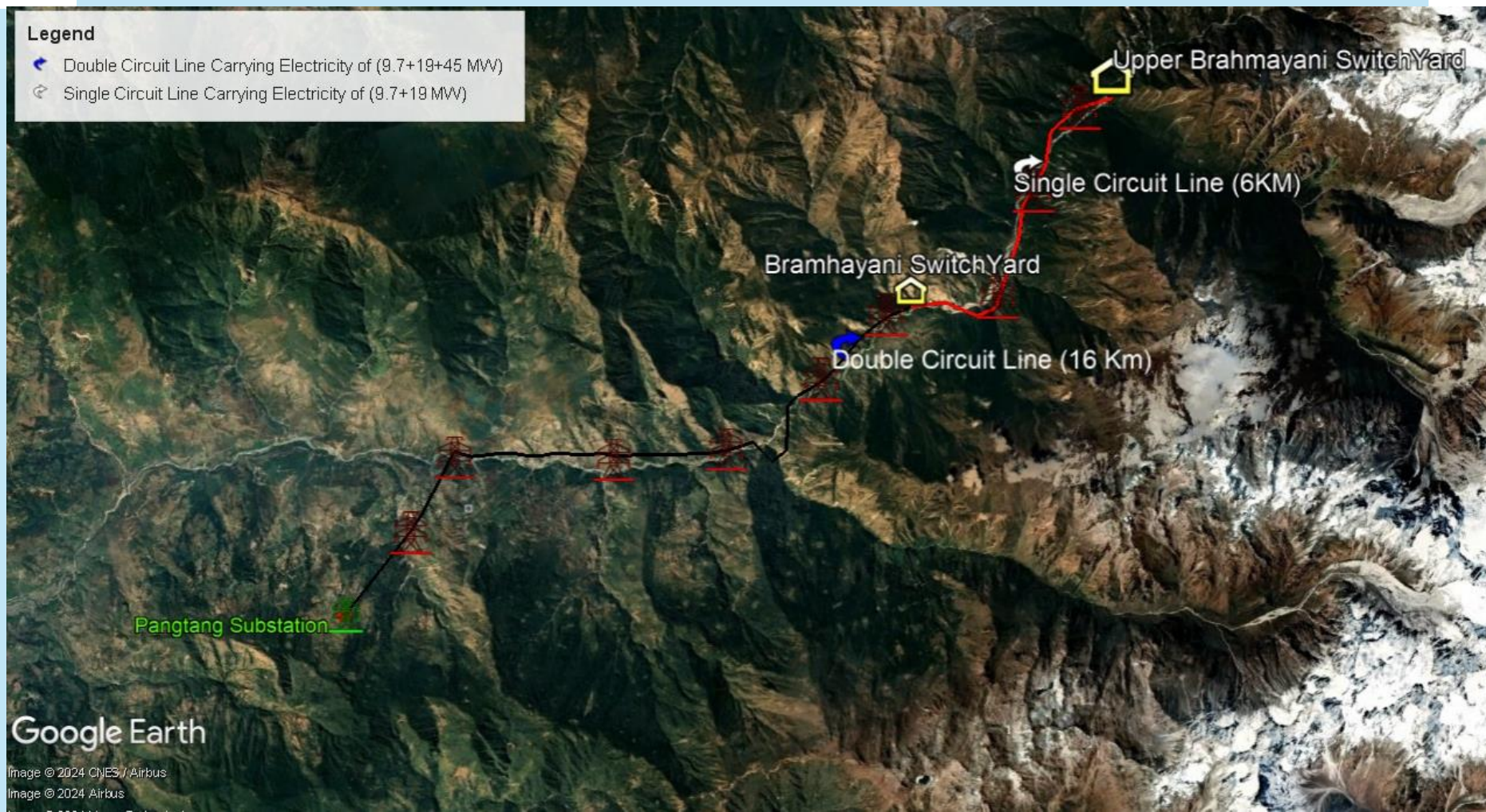


**INTEGRATED HYDRO FUND NEPAL PVT. LTD.**

Layout of Three Projects



Transmission Line Arrangement



Project Information

Company	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Source	Nyamamasal & Lagan Khola	Nyamamasal	Lagan Khola
Catchment Area	83.19 Square km+ 102.42 Square km =185.61 Square km	102.41 Square km	56 Square km
Design Discharge	9.7 cumec/sec (at 45.71% PoE)	4.8 cumec/sec (at 52.10% PoE)	2.11 cumec/sec
Plant Capacity	45 MW	19 MW	9.7 MW



Project Information



	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Head (Gross)	564.41 m	487 m	554.7 m
Total Energy (Yearly)	274.10 GWh/yr	121.05 GWh/yr	68.62 GWh/yr
Dry Energy (Magh 16- Jestha 15)	87.43 GWh/yr (31.90%)	41.18 GWh/yr (34.03%)	27.46 GWh/yr (40.03%)
Wet Energy (Jestha 16 to Magh 15)	186.66 GWh/ yr (69.49%)	79.86 GWh/yr (65.97%)	41.15 GWh/yr (59.97%)
Energy per MW	6.091 GWh/MW	6.37 GWh/MW	7.07 GWh/MW

Project Information

	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Headworks Elevation	2577.41 m amsl	3070.00 m amsl	3187.00 m amsl
Turbine Center Elevation	2013.00 m amsl	2583.00 m amsl	2632.00 m amsl
Headrace Pipe	1360 m (2.2 m dia)	3350 m (1.5m dia)	-
Headrace Tunnel	5055 m	-	-
Number of Adit	1 no	-	-

Project Information

	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Surge Shaft/pipe	54.0m high, 6.0m dia	90 m, 3.0m dia	9 m
Power House	Surface (46.6 m x 15.2 m x 15 m)	Surface (39m x 13m x 15m)	Surface (30m x 9m x 15m)
Transmission Line	132 kV, Double Circuit- 15 Km	132 kV, Single Circuit – 6 Km	132 kV, Single Circuit – 500 m
Turbine	3 number of Vertical Pelton of 15 MW capacity each	2 number of Vertical Pelton of 9.5 MW capacity each	-



Cost vs Revenue



	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Project Cost	900	386	210
Per MW Cost	20	20.31	21.6
Projected Revenue	163	72.93	42.82
Revenue per MW	3.55	3.83	4.41

Above Figures are in Crores



Estimated Cost



Description	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Preparatory Cost	57.88	6.98	11.90
Civil Works Surface	150.8	164	74
Civil Works Underground	215.7	-	-
Hydro-Mechanical Works	67.3	53.81	11.99
Electromechanical Works	155.4	63.40	28.40

Above Figures are in Crores



Estimated Cost



Description	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Land Purchase and Development	11.67	5.20	1.00
Environment and Social Cost	8.86	5.00	1.00
Engineering Design and Supervision	14.00	10.48	5.40
Office/ Management Cost	16.92	10.00	2.40
Vehicle Cost	6.75	4.41	3.00

Above Figures are in Crores



Estimated Cost



Description	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Office Equipment	3.50	1.50	1.00
Miscellaneous Expenses and Insurance	2.00	4.00	1.00
Physical Contingency	50.47	14.53	10.96
VAT and Custom TAX	59.05	23.41	16.20
132 KV Transmission Line	40.9	10	-

Above Figures are in Crores



Estimated Cost



Description	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Base Construction Cost	777	327.98	177.89
Interest During Construction	101.7	40.82	32.11
Total Cost with Financing	878.7	383.50	210.00
Per MW Cost	19.5	20.18	21.64

Above Figures are in Crores



Project Cost Management Modality



Description	Brahmayani Hydropower Co. Pvt. Ltd	Integrated Hydro Fund Nepal Pvt. Ltd	Jugal Brahmayani Pvt. Ltd
Total Project Cost	900	385	210
Equity	225	97	52
Debt	675	288	158

Total Project Cost	1495
Total Equity	374
Total Debt	1121

Above Figures are in Crores



Energy vs Projected Revenue



DESCRIPTION	BRAHMAYANI HYDRO 45 MW FIRST Year		
	KWh (YEARLY)	PPA RATE NRs.	AMOUNT
DRY ENERGY	9,25,10,487	8.4	77,70,88,090
WET ENERGY	18,83,21,087	4.8	9,039,41,212
Total	28,08,31,574		1,68,10,29,307
DESCRIPTION	BRAHMAYANI HYDRO 45 MW (After 9 th YEAR)		
	KWh (YEARLY)	PPA RATE NRs.	AMOUNT
DRY ENERGY	9,25,10,487	10.41	96,30,34,169
WET ENERGY	18,83,21,087	5.95	1,12,05,10,468
Total	28,08,31,574		2,08,35,44,637

The PPA rate increases by 3% every year up to the 9th year, after which it remains same for the entire duration of the project.

Energy vs Projected Revenue

DESCRIPTION	UPPER BRAHMAYANI HYDRO 19MW FIRST YEAR		
	KWh (YEARLY)	PPA RATE NRs.	AMOUNT
DRY ENERGY	4,11,88,161	8.4	34,39,80,552
WET ENERGY	7,98,63,255	4.8	38,33,43,624
Total	12,10,51,416		72,93,24,176
DESCRIPTION	UPPER BRAHMAYANI HYDRO 19 MW (After the 9th YEAR)		
	KWh (YEARLY)	PPA RATE NRs.	AMOUNT
DRY ENERGY	4,11,88,161	10.41	42,87,68,756
WET ENERGY	7,98,63,255	5.95	47,51,86,367
Total	12,10,51,416		90,39,55,123

The PPA rate increases by 3% every year up to the 9th year, after which it remains same for the entire duration of the project.



Energy vs Projected Revenue



DESCRIPTION	BRAHMAYANI A HYDRO 9.7 MW FIRST Year		
	KWh (YEARLY)	PPA RATE NRs.	AMOUNT
DRY ENERGY	2,74,69,994	8.4	23,07, 47,952
WET ENERGY	4,11,53,080	4.8	19,75, 34, 786
Total	6,86,23,075		42, 82, 82, 737
DESCRIPTION	BRAHMAYANI A HYDRO 9.7 MW (After 9 th YEAR)		
	KWh (YEARLY)	PPA RATE NRs.	AMOUNT
DRY ENERGY	2,74,69,994	10.41	28,59,62,640
WET ENERGY	4,11,53,080	5.95	24,48,60,828
Total	6,86,23,075		53,08,23,468

The PPA rate increases by 3% every year up to the 9th year, after which it remains same for the entire duration of the project.



Sectoral Policy for Taxes and Royalty



PARTICULARS	BASIS	1- 10 year	11- 15 Year	16 to 30 Year
Capacity Royalty	Fixed per year	Rs. 1 Lakh /year		Rs.10 Lakh Per MW/year
Revenue Royalty	Based on Revenue	2%	10%	
Corporate Tax		NA	10%	20%

Financial Indicators

S N	Indicators	Result of Indicator		
		BRH 45MW	UBRH 19 MW	UBA 9.7 MW
1	IRR	14.30 %	14.14 %	16.5%
2	EIRR / ROE	22.96 %	22.75 %	
3	NPV (Million)	4022.36	1,846.15	1,04,404
4	B/C Ratio	1.54	1.55	1.64
5	Pay back Period -Simple	5.7	5.31	
6	Pay back Period - Discounted	7.6 Years	8.27 Years	
7	Revenue Per Mw	3.62	3.83	4.4



Government Tax and Royalty Amount



Projects	Period of Generation of the project		
	up to 10 th year	11 th to 15 th year	16 th year onward
Brahmayani HEP	4.65	25.45	65.30
Upper Brahmayani HEP	1.53	15.90	23.00
Brahmayani A HEP	0.92	8.29	13.00
Total	7.10	49.64	101.3

Above Figures are in Crores



Expected DIVIDEND



PROJECT	Year of the operation			
	1 st to 5 th YEAR	6 th to 10 YEAR	11 th to 16 th YEAR	16 th to 30 th YEAR
BRAMHAYANI HEP	10%	15%	20 %	32%
U. BRAHMAYANI HEP	9%	14%	18%	25%
BRAMHAYANI . A HEP	10%	15%	20%	30%

Engineer's Camp



Army Camp



Access Road



Penstock Pipe Alignment



Weir Axis Brahmayani 45



PH of Brahmayani 45





THANK YOU