



Welcome in Gandaki Province

Investment Opportunities in Gandaki Province

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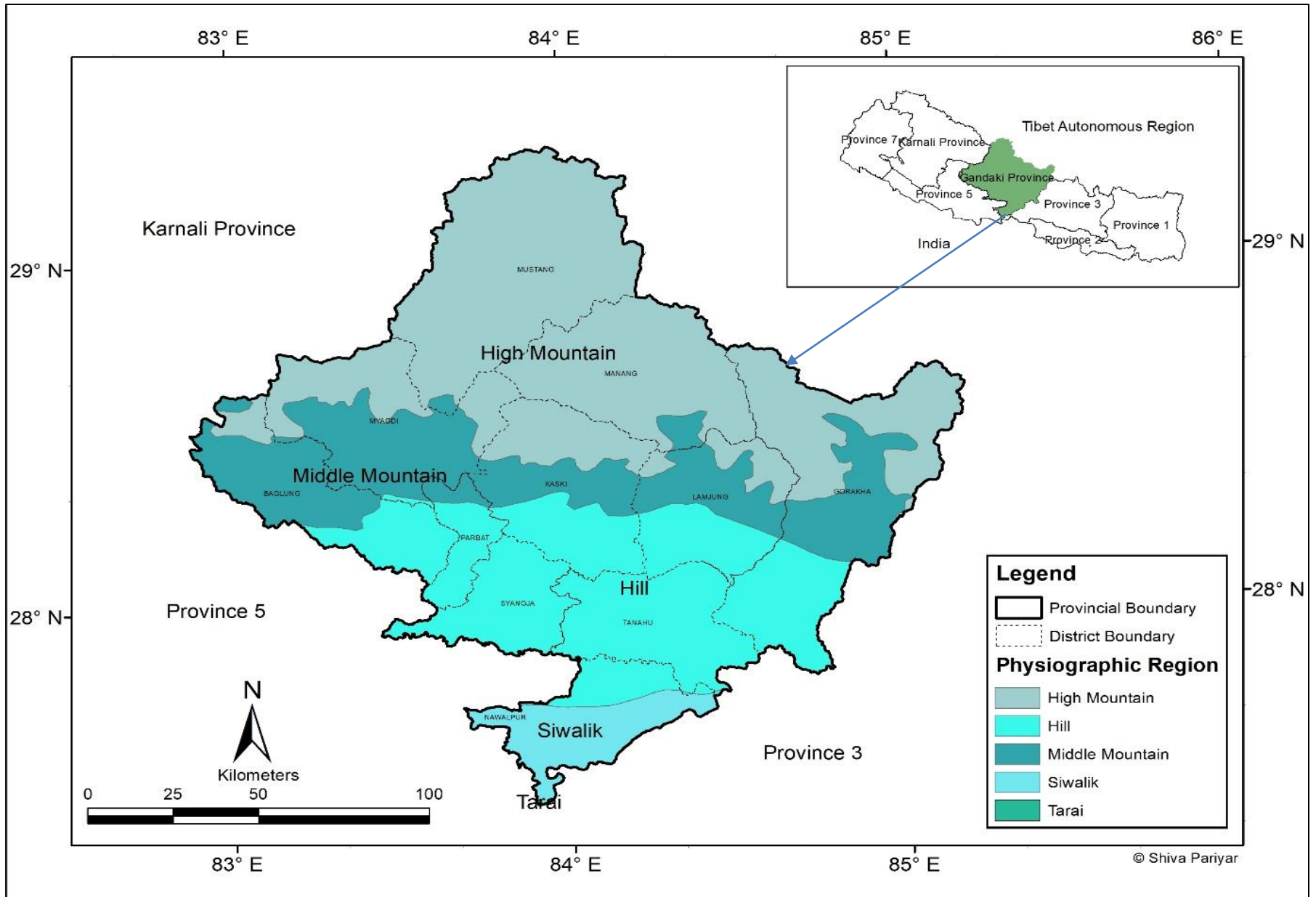
Main subjects highlighted in this presentation

- **Brief introduction of Gandaki Province**
- **Poverty in Gandaki Province**
- **Development aspiration of Nepal and Gandaki Province**
- **Selected development targets**
- **Seven key drivers and five enablers of prosperity**
- **Existing situation, government sector plan, private sector plan and opportunity for investment to private sector in tourism, energy, agriculture, industry, infrastructure and human resources**

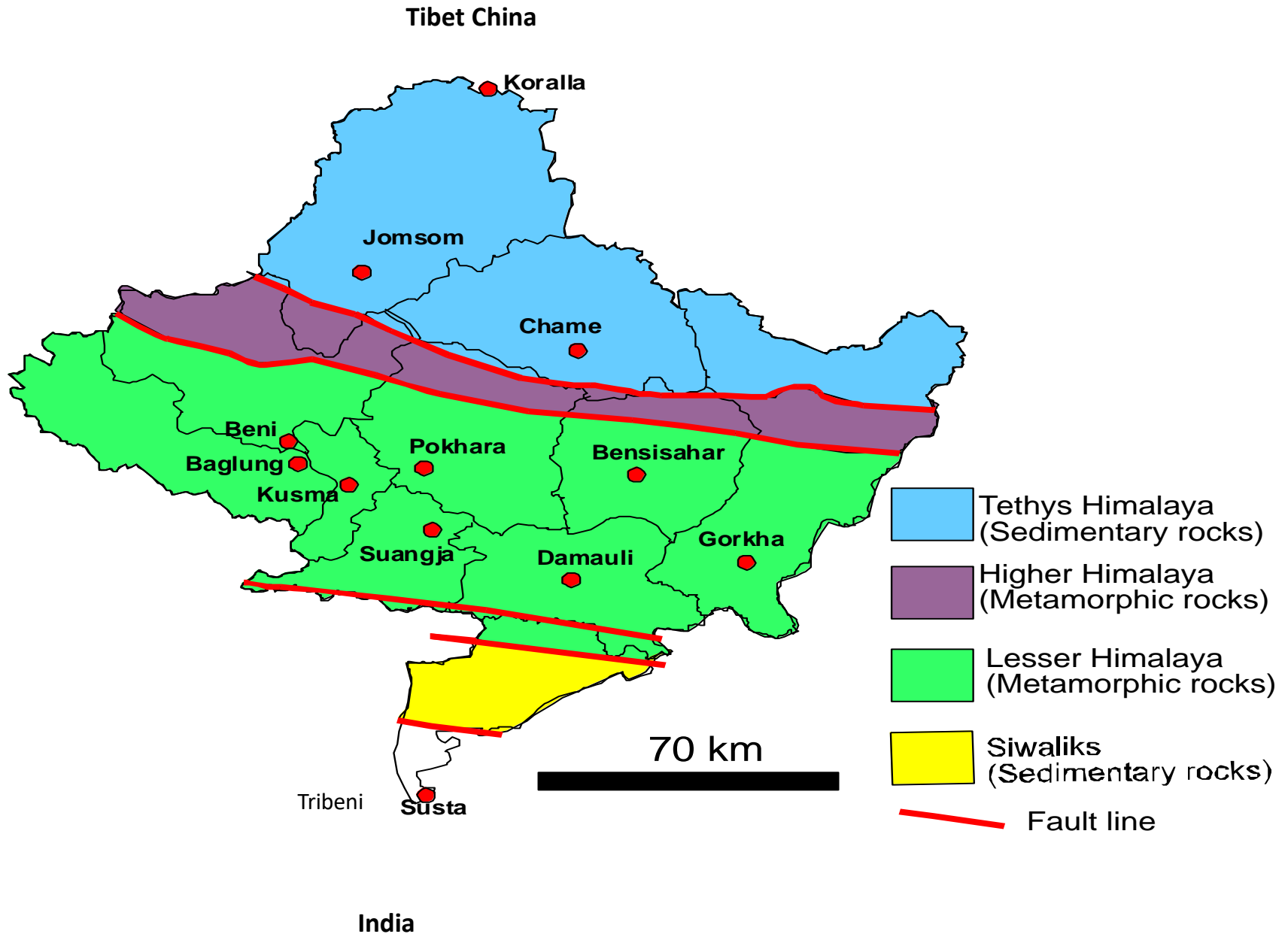
Brief Introduction of Gandaki Province

- **Area** = 21,974 Square KM
- **% share of arable land in total land** = 22.2 percent
- **Per capita availability of arable land is** = 0.2 hectare
- **Household Numbers** = 577,682
- **Population (2018 Projected)** =2.49 Million
- **Economically active population** =57 %
- **Population density per square KM** =114 persons
- **Ethnic groups** = 22
- **Local dialects** = 22
- **Life expectancy at birth** =71.7 years
- **Total fertility rate per women** =2.0 children
- **Total GDP 2017/018** = 2.57 Billion USD
- **Remittance** = 1.7 Billion USD
- **GNI per capita income** =1,043 USD
- **Climate** = Sub-tropical to tundra
- **Perennial snowline** = 16,000 feet and >

Geography of Gandaki Province

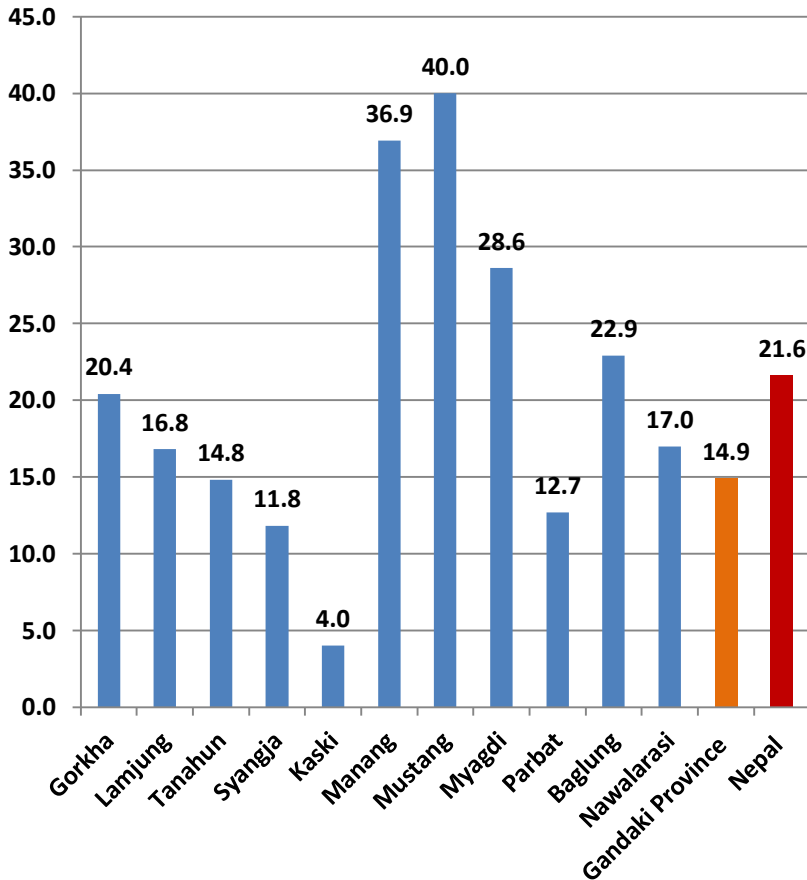


Geology of Gandaki Province

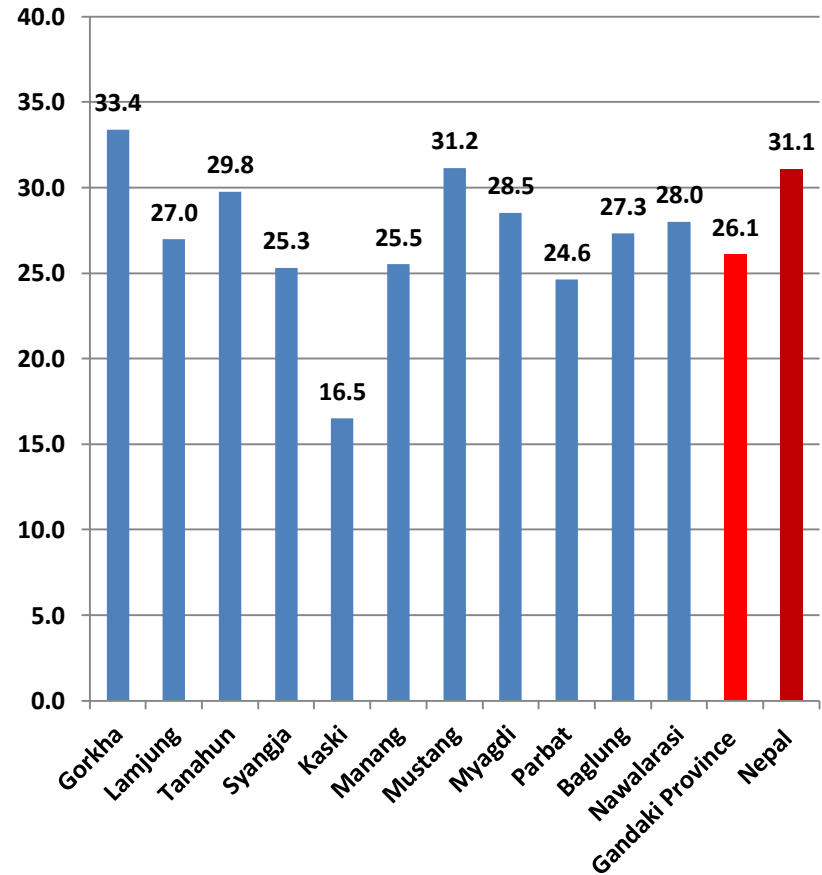


Poverty in Gandaki Province

% of people below national –
(economic) poverty line



% of people in human poverty



Poor households

Poor households in mountain

Poor households in low land Terai



Development Aspiration of Nepal and Gandaki Province

- Graduate Nepal from least developed country to developing country by 2022
- Transform Nepal from low income country to middle income country by 2030
- Transform Nepal from middle income country to developed country by 2043
- Prosperous Nepal with happy citizen by 2043

Selected Development Targets of Gandaki Province

SN	Indicators	Target			
		Base year 2019	2023 (Five Year Period)	2030 (SDG Period)	2043 (Prosperous Nepal and Happy Nepali Period)
1	Projected annual GDP growth rate	7.1	10.2	10.5	11.0
2	Size of GDP (in billion USD)	2.57	3.70	9.69	15.17
3	GNI per capita income (In Rs)	1,16,844	2,47,828	5,65,505	38,15,118
4	GNI per capita income (In USD)	1,043	1,956	3,721	15,729
5	People living below the national poverty line (%)	14.91	7.4	2	0
6	Gini coefficient (Distribution of wealth)	0.37	0.26	0.23	0.20
7	Life expectancy at birth (Years)	71.7	77	80	82
8	Maternal mortality ratio Per 100,000 livebirths	239	99	70	15
9	Under 5 mortality rates per 1000 livebirth	27	22	15	6

Selected Development Targets of Gandaki Province

SN	Indicators	Target			
		Base year 2019	2023 (Five Year Period)	2030 (SDG Period)	2043 (Prosperous Nepal and Happy Nepali Period)
10	Adult literacy rate 15 years and above	55.6	95	98	99.5
11	Unemployment rate (15 Years and above)	9	4	2	1
12	% of population with access to electricity	82.5	100	100	100
13	% of population with access to basic drinking water	91.1	100	100	100
14	Population covered by social welfare scheme	23	60	80	90
15	Electricity generation (megawatt)	448.5	3000	6000	9000
16	% of population using internet	48	80	90	100
17	Tourist arrival (million)	1	2	3	3.4
18	Human development index	0.59	0.65	0.70	0.78

Key drivers and enablers of Gandaki Province

Seven key drivers of prosperity

- Tourism
- Energy
- Agriculture
- Industry
- Infrastructures
- Human resources
- Governance

Five key enablers of prosperity

- Natural beauty
- Bio-diversity
- Unity in social diversity
- Cultural prosperity, coexistence and identity
- Demographic dividend

Tourism situation in Gandaki Province

- Annual tourist arrival = 1 m/year
- Number of star hotel = 17
- Number of tourist standard hotel = 358
- No. of hotel, lodge and restaurant = 6,442
- Number of homestay = 342
- Total hotel, restaurant and homestay = 7159
- Indirect contribution of tourism in GDP = 10%
- No. of tourist standard hotel added in 2019 = 46

Annapurna Himalaya Range



Gandaki Province is a multi-cultural and multi-lingual province with an unity in diversity . It has unique topography, panoramic view and natural paradise

Annapurna Circuit



166,651
foreign
tourists
visited in
Annapurna
Area in
2017

It is one of the best 10 places of the world for travel and entertainment

Tourism sector plan of Gandaki Province

- **Develop tourism sector master plan**
- **Consolidate and improve tourism infrastructures**
- **Complete construction of international airport in 2020**
- **Neighboring country's tourist visit year 2021**
- **International tourist visit year 2022**
- **Consolidate and expand homestay**
- **Facilitation to private sector**
- **Double the tourist arrival in 2022 compared to base year 2018**

Private sector plan in tourism sector

- **Construction of a cable car from Birethanti to Muktinath (It will be 84 KM long with an annual capacity of 3.6 million passenger and total investment will be USD 475 million)**
- **Under construction of Phewa Lake to Sarangkot cable car**
- **Under construction of Satrasayaphant to Badipur cable car**
- **Under study of Ghantichina to Panchase cable car**
- **Construction of two five star hotel**
- **Construction of middle size tourist standard hotels**
- **Expansion of tour and travel activities**

Opportunities for investment in tourism sector

- **Construction of tourist standard hotel**
- **Province will require 250 new tourist standard hotels in next five years**
- **Construction of international convention center**
- **Construction of conference standard hotel and resort**
- **Construction of beach park and hotel along the river bank**
- **Opening of new tour and travel agencies**
- **Skilled human resource production for tourism sector**
- **Luxury travel coach service**
- **Opening of new airline for international flight**

Energy situation in Gandaki Province

- Household using firewood for cooking = 69.3 %
- People using LPG for heating and cooking = 25.6%
- People using biogas for cooking =4.25%
- Households with access to electricity =82.5 %
- Per capita electricity consumption = 190 kilowatt/h
- Theoretical potential of hydroelectricity = 20,650 MW
- Solar and wind potential =5,000 MW
- Economic and technical potential = 11,930 MW
- Under study = 4,500 MW
- Under construction = 654 MW
- Generation at present = 448.5 MW
- Average production cost = 1.55 Mi.USD/MW

Gandaki River Basin

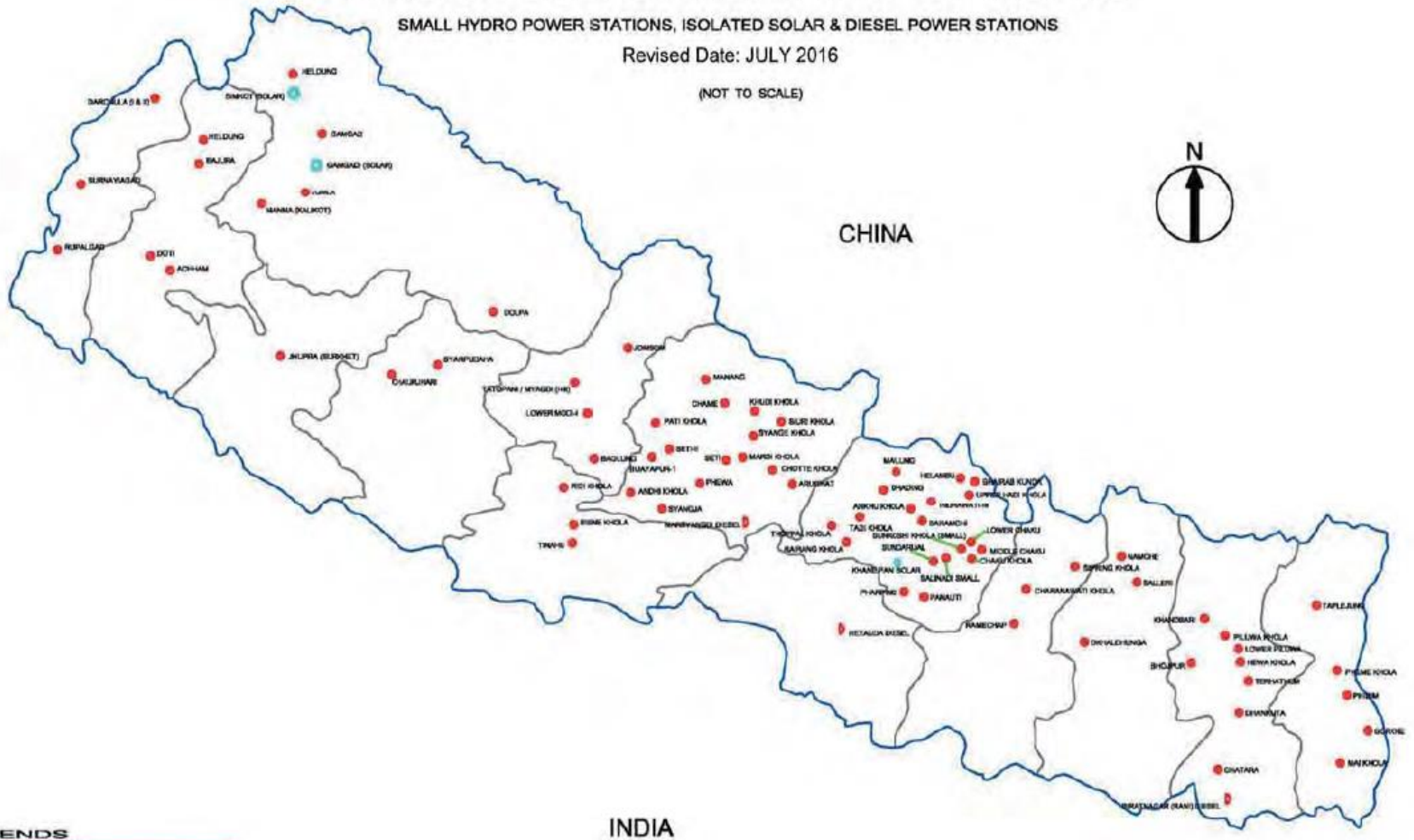


POWER DEVELOPMENT MAP OF NEPAL

SMALL HYDRO POWER STATIONS, ISOLATED SOLAR & DIESEL POWER STATIONS

Revised Date: JULY 2016

(NOT TO SCALE)



LEGENDS

- NEA SMALL POWER PLANTS
- IPP'S POWER PLANTS
- D NEA'S DIESEL POWER PLANTS
- SOLAR POWER PLANTS

NEPAL ELECTRICITY AUTHORITY
TRANSMISSION DIRECTORATE
GRID DEVELOPMENT DEPARTMENT

Prepared by : Manager Gagan Manandhar

POWER DEVELOPMENT MAP OF NEPAL

EXISTING / UNDER CONSTRUCTION POWER STATIONS & TRANSMISSION LINES / SUBSTATIONS

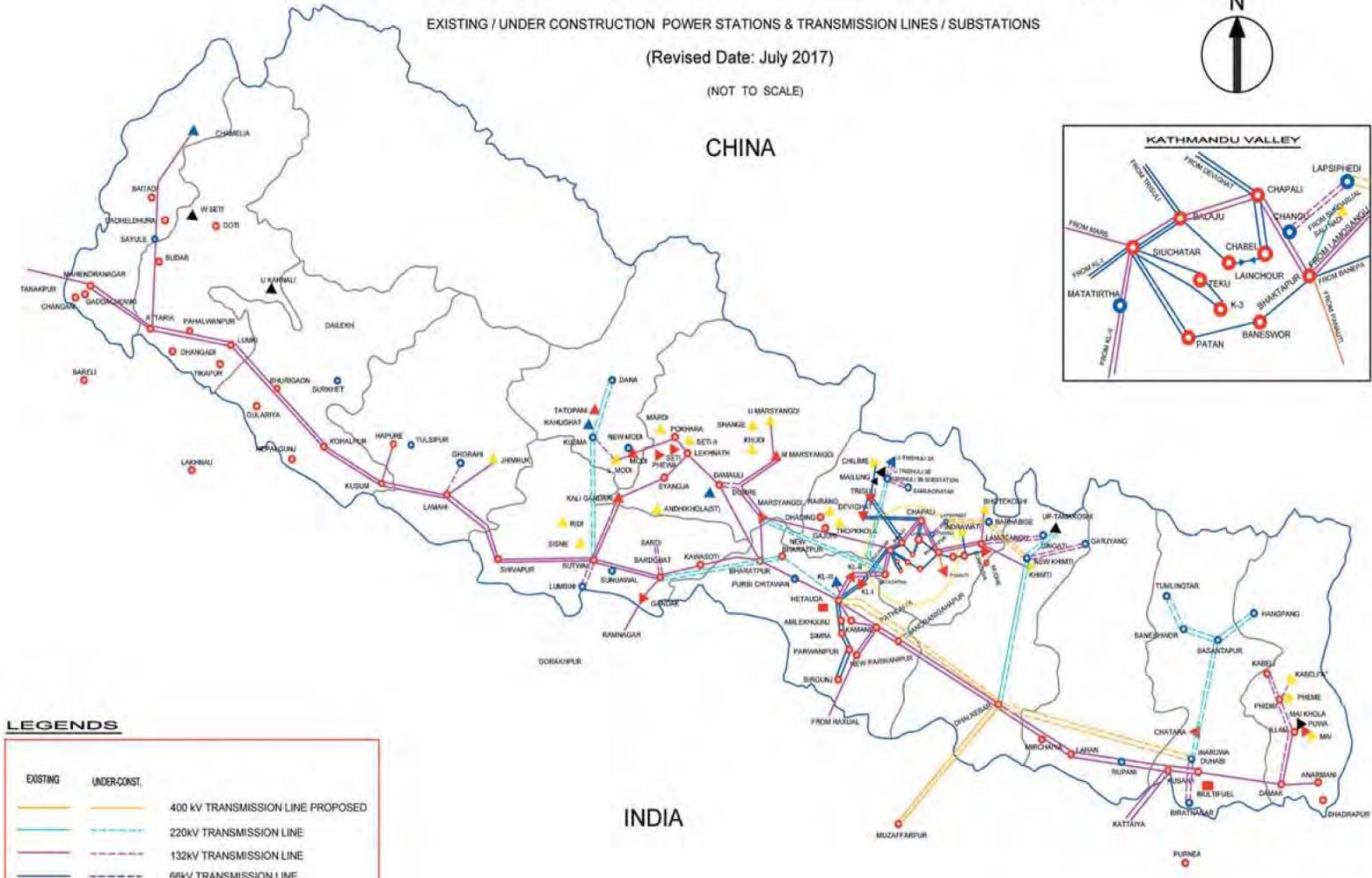
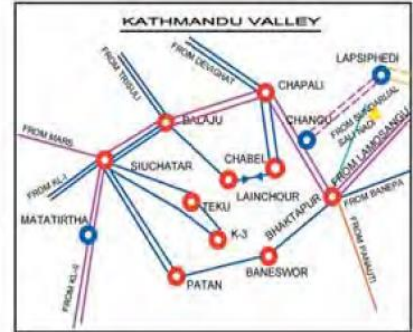
(Revised Date: July 2017)

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CHINA

INDIA



LEGENDS

EXISTING	UNDER-CONST.	
		400 kV TRANSMISSION LINE PROPOSED
		220kV TRANSMISSION LINE
		132kV TRANSMISSION LINE
		66kV TRANSMISSION LINE
		GRID SUB-STATION
		HYDRO-POWER STATION
		IPP's HYDRO-POWER STATION
		DIESEL/M-F POWER STATION

NEPAL ELECTRICITY AUTHORITY
 TRANSMISSION DIRECTORATE
 GRID DEVELOPMENT DEPARTMENT

Prepared by : Manager Gagan Manandhar

Energy sector plan of Gandaki Province

- **Establish a energy sector agency**
- **Increase access of electricity for all households for lighting by the end of next fiscal year**
- **Facilitate to implement the 1,200 MW Budhigandaki, 600 MW Marshyangdi, 828 MW Uttarganga and 164 MW Kaligandaki hydroelectricity projects**
- **Increase electricity generation to 3,000 MW**
- **Implement one medium size hydro project**
- **Replace LPG by electricity**

Private sector plan in energy sector

- **29 hydro projects of 654 MW are under construction. Out of them 500 MW will be completed in this year**
- **Private sector is investing USD 1 billion in these projects**
- **Construction of another 600 MW Marshangdi hydro project began in a joint initiative of Chinese and Nepali private sector**
- **Investment in this project will be USD 1 billion**
- **45 medium size hydro projects are under study**
- **25 MW solar projects are under construction**
- **Two biogas plants are recently completed**

Opportunity for investment to private sector in energy

- **Solar, wind and hydro electric projects**
- **Electric oven and kitchen ware production factory**
- **Transmitter production factory**
- **Electric car production**
- **Electric bus production**
- **Talley bus production**
- **Construction of charging station**

Situation of agriculture and livestock in Gandaki Province

- **72 % households in Gandaki province are somehow linked to agriculture**
- **Per capita food grain production is 234 kg**
- **Per capita milk production is 64 liter and meat 11 kg**
- **22.2% of land (4,87,578 hector) is arable**
- **Out of total arable land, 76% is under cultivation and 24% is abandoned**
- **Only 36% of land under cultivation is irrigated**
- **Productivity of rice is 3.4 ton/hectare, maize 2.7 ton/hectare, wheat 2.2 ton/hectare, and millet 1.1 ton/hectare**

Agriculture in Gandaki Province

Agriculture in hill slope area near

Ghandruk



Farmland in dry season



Gandaki Province plan in agriculture sector

- **Develop self sufficiency in food, milk, meat and egg**
- **Chief Minister Climate Smart Agriculture Program**
- **Promotion of land consolidation and contract farming**
- **Expansion of apple farming in high mountain districts**
- **Promotion of agriculture and livestock model farms**
- **Subsidize agriculture and livestock loan**
- **Gadaki dairy development**
- **Organic farming**
- **Modernization of agriculture and livestock**
- **Collaboration and partnership with agriculture university, research institute, and famer's associations and groups**

Private sector plan in agriculture sector

- **Expansion of dairy industry**
- **Expansion of model agriculture and dairy firms (2500 firms are active)**
- **Establishment of a agriculture incubation center**
- **Establishment of livestock feed industry in collaboration with multinational company**
- **Expansion Agro Manang Apple Firm, one of the largest apple firms in Asia**
- **Expansion of buffalo, cow, pig and chicken firms**

Opportunity for private sector in agriculture sector

- **Agro-processing industry**
- **Apple, orange, guava and mango juice production**
- **Model cow, buffalo, pork, goat and chicken firm**
- **Cow, buffalo, pork, goat breeding firm**
- **Meat production and processing**
- **Millet, maize and buckwheat noodle production and other ready made foods production**
- **Model fruit firm**
- **Fish production and packaging**
- **Biochar and organic manure production**

Situation of industry in Gandaki Province

- **Province has only 437 medium to small industry**
- **Province has one industrial estate with 89 industries**
- **Surya Tobacco Company, LG Company and Hyangsi cement are three largest industry of the province**
- **The province has a total of 100,668 enterprises**

Plan of Gandaki Province in industry

- **Develop a new province level industrial estate in Kaski and Tanahun district boarder in Puditara with an area of 140 hectare**
- **Develop another province level industrial estate in Nawalpur district with an area of 104 hectare**
- **Develop industrial cluster in 51 municipalities**
- **Operate Dhaubadi iron ore industry in Nawalpur district with daily capacity of 800 tons**

Private sector plan in industry

- **Electric car assembling industry**
- **Livestock feed industry**
- **Three cement factory in Madhya Bindu Nawalpur district, two in Syangja district (Sirsikot and Sworak)**
- **Herb processing industry in Nawalpur**
- **Scrap paper processing industry**

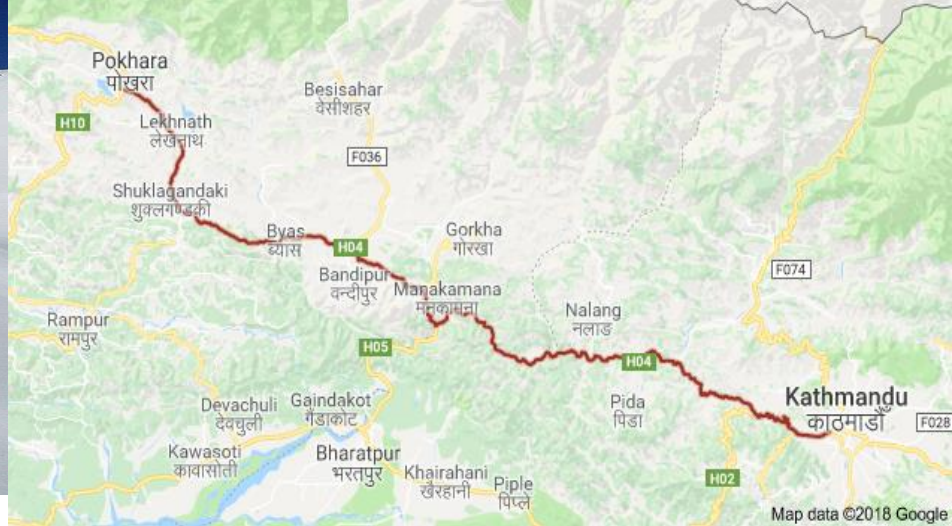
Opportunity for private sector in industry

- **Construction materials production industry**
- **Steel**
- **Tile**
- **Tire and tube**
- **Pharmaceutical**
- **Cotton textile and garments**
- **Stone carving and brick making**
- **Iron and copper industry**
- **Lease Gorakhkali tire and tube industry**
- **Electric wire and pole**

Situation of infrastructure in Gandaki Province

Infrastructure Status	Value
Road density (Weather, gravel and black tapped) per square KM	0.49
Weather road (KM)	8,525
Gravel road (KM)	2,358
Black tapped road (KM)	937
No of domestic airports	5 (3 in operation)
Railway (Feasibility study) (KM)	519
Cable car (one operated and 4 under construction)	5
Tel density (Per person)	110
% of men using internet	61.27
% of women using internet	38.06
Motorable bridge (288 completed and 180 under construction)	468
Number of house under reconstruction after earthquake	114, 953
TV station	26

Infrastructures



Thorang La pass through Chame Side

Siddhartha and Prithvi Highways

Gandaki Province plan in infrastructures

- **Link all 85 municipalities of the province in 2023 by upgrading and constructing 1,350 km road**
- **Complete blacktopping of 360 km electoral constituency road by 2023**
- **Korela- Baglung road 188 km**
- **Mid-hill highway 134 km**
- **Upgrade Pokhara-Mugling road 90 km**
- **Upgrade Pokhara-Ramdi road 93 km**

Private sector plan in infrastructure sector

- **Pokhara-Bhimad- Dumkibas road**
- **International convention center**
- **Pokhara ring road**
- **Solar and wind energy projects**

Opportunities for private sector in infrastructure

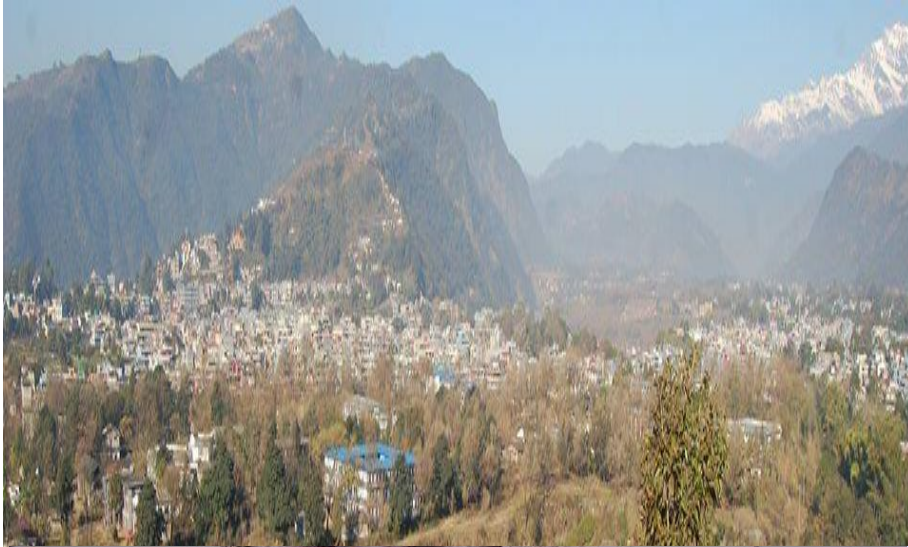
- **Pokhara ring road**
- **Pokhara-Bhimad- Dumkibas road**
- **International convention Centre**
- **Sport stadium**
- **Cricket and golf stadium**
- **High altitude sport training center**
- **Solar and wind energy in Mustang district**

Human Resources situation in Gandaki Province

Education Status (Indicators)	Value	Health Status (Indicators)	Value
Net enrollment rate in primary education (1-5 grade)	96.7	Maternal mortality rate (per 100,000 live birth)	239
Net enrollment in basic education (1-8 grade)	94.7	Under 5 years mortality rate (per 1000 live birth)	27
Net enrollment rate in secondary education (9-12 grade)	44.7	Neonatal mortality rate (Per 1000 live birth	15
Literacy rate 5 years and above	70.0	Delivery assisted by trained health personnel (%)	70
Literacy rate 15 years and above	55.6	Contraceptives prevalence rate (% modern methods)	37
Literacy rate of 15-49 years women	86.85	Spousal separation rate (%)	42
		Tuberculosis prevalence rate (per 100000 population)	81
School drop out rate in grade 1	5.9	Malaria prevalence e rate (per 100000 population)	135
School drop rate in grade 5	3.0		
School drop out rate in grade 8	5.0		

Education system

Prithvi Narayan Campus Bagar



Forestry college Hariyokharka



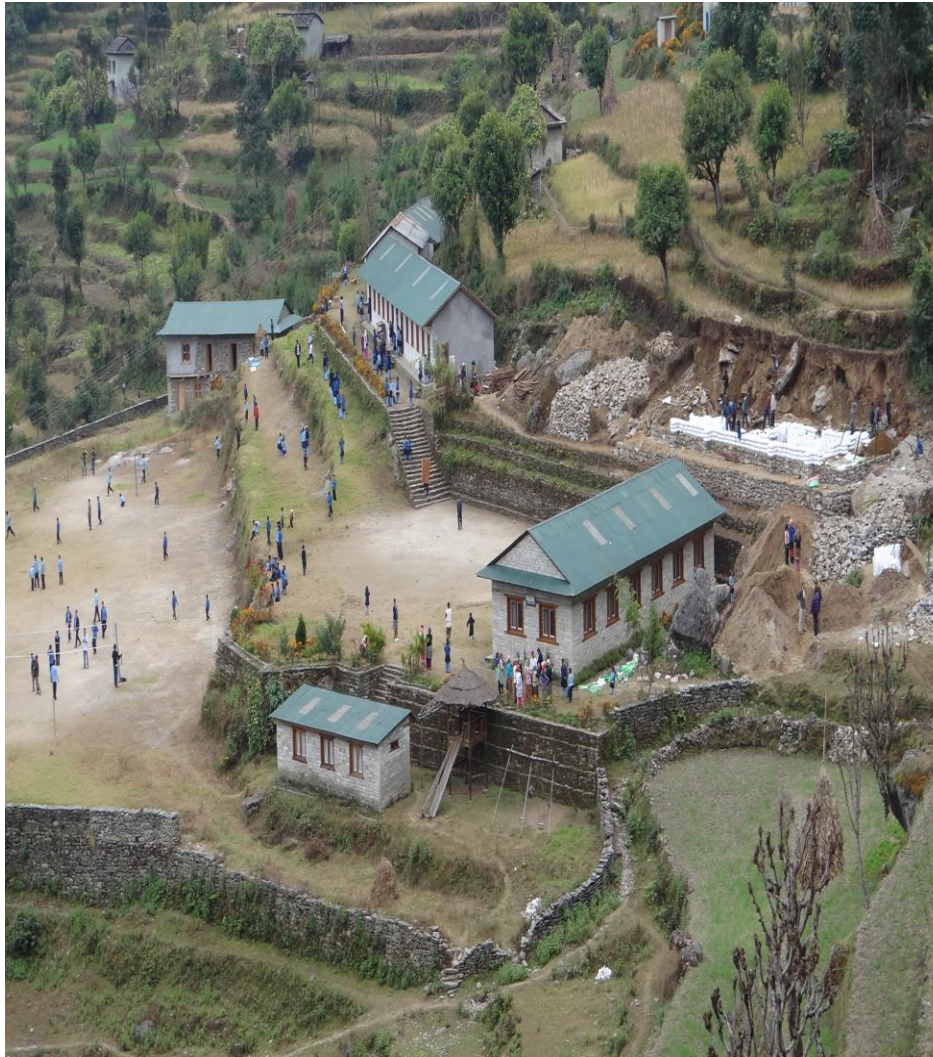
Himalayan University Consortium Nepal Members' Meeting has held on 11 August 2018 at Pokhara University Premises, Lekhnath, Kaski, Nepal. Pokhara University & ICIMOD is being Co-organizers of this meeting. Prof. Churanjeebi Prasad Sharma, VC, Pokhara University, Prof. Dr. Ghanshyam Lal Das, VC, Purbanchal University, Prof. Dr. Upendra Koirala, VC, Mid-western University, Prof. Dr. Kul Prasad Koirala, VC, Nepal Sanskrit University, Prof. Dr. Naresh Man Bajracharya VC, Lumbini Buddha University, Prof. Dr. Dev Raj Adhikari, UGC Member Secretary, Dr. David Molden, Director General, ICIMOD and more than 10 Researchers were presented at the meeting.



Pokhara University Lekhnath

Engineering College Lamachaur

Two types of schools (Public and private)



Rural community school



Lamachaur urban private boarding school

Two types of hospitals (Public and Private)



Pokhara Academy of Health Sciences and Mustang District Hospital -Public sector

Gandaki and Manipal Teaching hospitals – private sector

Gandaki Province plan of in human resources

- **Establish a Gandaki University**
- **Establish a Gandaki Institute of Technology**
- **Promote one municipality one science school**
- **Transform general subject college to technical college**
- **Consolidate 11 hospital and Ayurveda centers**
- **Develop a province hospital**
- **Increase coverage of health insurance to all citizen**
- **Establish a science and technology academy, sport academy, cricket stadium, golf course, high altitude sport training center**
- **Establish a multicultural village**

Private sector plan in human resources

- **460 boarding schools are operated**
- **44 campus**
- **2 teaching hospitals**
- **8 community hospitals**
- **Bungee Jump**

Under study

- **Children hospital**
- **Cancer hospital**

Opportunities for private sector in human resources

- **Technical college for high quality education**
- **Integrated hospital with kidney, cardiovascular and cancer diagnosis and treatment services**
- **Women and children hospitals**
- **Food laboratory**
- **Modern press**
- **Paper industry**
- **Sport items production factory**
- **Construction and operation of IT park**

Thank you for your kind attention