

Strategic Policies to Manage Land Resources for Addressing Growing Social, Economic and Environmental Problems in Nepal's Mountain Region

SECOND KNOWLEDGE CONVENTION

Diaspora For Innovation And Prosperity In Nepal: Post COVID-19 Scenario
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Presentation structure

1. The mountain setting and resource economic realities.
2. Changes in land resource management and emerging problems.
3. Potential policy solutions.

Key phrases:

- Abused resources and opportunities; biodiversity loss; exploited poor people; exacerbated food insecurity and economic hardship; community institutionally locked out; indigenous institution loss; resources locked.

T.1: Agricultural land and rural population: Nepal in comparison with neighboring countries

Country	Total Ag land % (चरण समेत)	Arable (अन्नबाली) land area %	Arable land per capita (ha)	Rural popul %
Bhutan	13.79	2.63	0.14	59.8
Nepal	28.75	14.75	0.08	80.7
Sri Lanka*	43.69	20.73	0.06	81.6
Pakistan*	46.96	40.27	0.15	63.3
China*	56.22	12.66	0.09	42.0
India*	60.45	52.63	0.12	66.4
Bangladesh*	70.39	59.4	0.05	64.1

Note: *A large section of the population depends on fisheries of their ocean resources

T.1: Agricultural land & rural population: Comparison with developed countries

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Country	Total Ag land % (including pasture)	Arable (अन्नबाली) land area %	Arable land per capita (ha)	Rural popul %
Norway*	2.7	2.21	0.16	18.1
Finland*	7.5	7.38	0.41	14.7
Switzerland*	38.4	10.08	0.05	26.2
USA*	44.4	16.65	0.47	17.8
Australia*	47.6	6.00	1.9	14.1
Germany*	48.0	33.97	0.15	22.7
Denmark*	62.2	56.04	0.41	12.2
UK*	70.8	24.85	0.09	30.8

Their economic development
founded on the livestock business.

Note: * Countries with access to fisheries of ocean resources for people's livelihoods and national economy.

Countries funding and advising to increase forest and protected area in Nepal

Geo-ecological reason to be small private landholding.

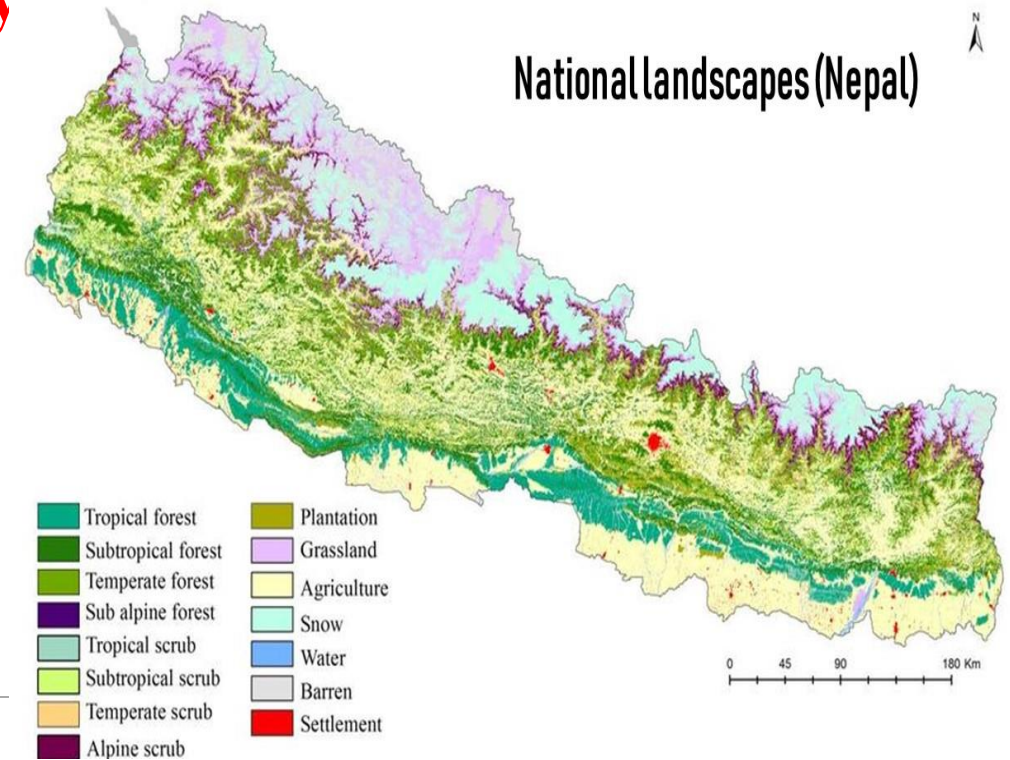
❑ Mountain Communities used **geologically safe lands** for arable farming.

❑ **Managed very sensitive lands in common (public) for livestock grazing and other forest uses.**

❑ Made convenient to survive in the harsh mountain region

❑ **No private pasturelands (unlike European and other dev countries).**

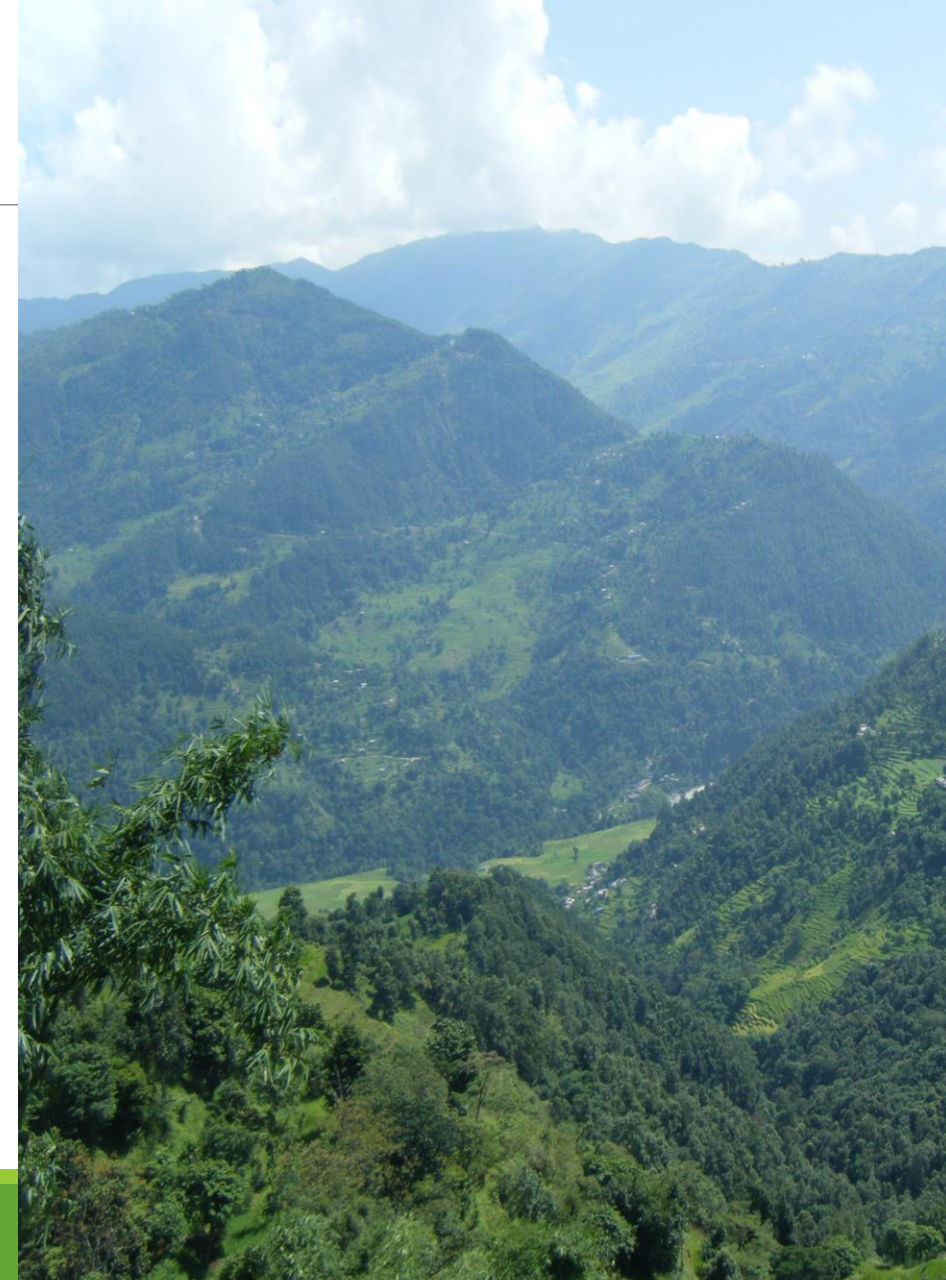
❑ Therefore, forestlands - **De Facto private property and pasturelands** of the mountain community



The practice resulted in sustainable mountain land use

- **Private land and** forests mixed landscapes.
- Small private landholding.
- Environment of coexistence of **wild animals and human in same territory.**
- Evolved mountain agrobiodiversity on forest resource complemented **agricultural production systems.**
- **Developed human activity induced forest biodiversity.**

Otherwise, hardly any **native forest and wild mammals would be left** as in the UK and other developed countries



Other outcomes

- ❖ **Evolved mountain social-ecological systems** (पहाडी सामाजिक-पारिस्थाकिय प्रणालीको बिकाश)
- ❖ **-a backbone of sustainability of mountain life.**
- ❖ **Its foundation is livestock farming**
 - ❖ **Some remarks:**
 - ❖ **The livestock is an engine and inspiration of mountain life.**
 - ❖ **The mountain community requires managing the forest resources for multipurpose use to sustains mountain farming and economy**

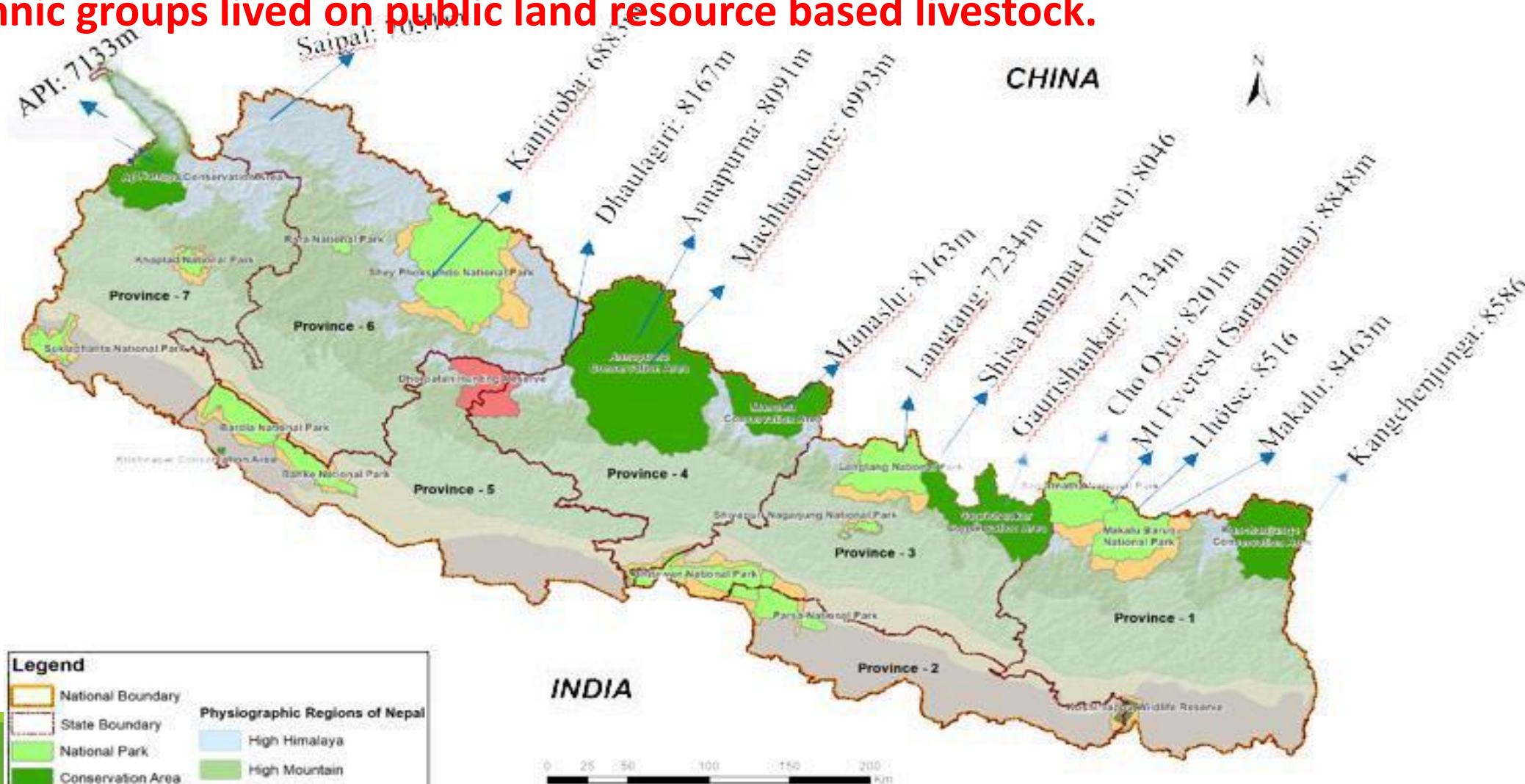
T.3: international experts/agencies blamed on the land use practices as “causes of environmental disasters” and did strategic intervention on the resource management policies and practices in their interests

Hidden objectives	International agencies
Increase forest area for carbon storage and reduce forest based livestock for GHG emission reduction	World Bank#, ADB, FAO, ICIMOD# and bilateral agencies# (e.g. AUSAIDS, DFID, USAIDS, FINIDA, SDC and DANIDA)
Increasing protected areas for wild life protection, outdoor adventures recreation and carbon storage	IUCN#, WWF, UNDP, FAO, ICIMOD# and other small INGOs

Intervening modes: One or multiple ways: advocacy, lobbying, funding and technical advice. #Key Players:

M#1 Declared protected areas -mostly in **highest mountains** area. Wild animal habitat in this difficult/remote terrains was moderately degraded and much less serious than in the lower hill and other regions.

The high hill region is economically disadvantaged area where mainly indigenous ethnic groups lived on public land resource based livestock.



Why more protected area lands in the high mountain area

- a. **Due to special adventurous recreation interest of international advising experts & funding agencies.**
- b. Expanded wider land area more than actually needed to offset GHG emission –a subject high concern to developed countries.
- c. Managed the habitat resources in intact model (not productive model) to contribute to GHG emission offset.
- d. ~~International agencies advised and funded to contribute to achieving their global target of protected area.~~
- e. The more area in protected area is more foreign aids which benefited to government officials and related professionals

T.4 Protected area: International comparison

Country	Forest area	Protected area	Country	Forest area	Protected area
Norway	33.2	17	Bhutan	72.5	48
Finland	73.1	14.9	Nepal	44.2	23.6
Switzerland	31.8	9.7	Sri Lanka	32.9	29.9
USA	33.9	13	Pakistan	1.9	12.3
Australia	16.3	17	China	22.4	17.1
Germany	37.7	23.7	India	26.0	6
Denmark	14.7	17.6	Bangladesh	11	4.6
UK	13.1	28.2			
New Zealand	38.6	32.6			

T.5: India vs Nepal: land use difference between **economically conscious and bad governments**

Resource	India	Nepal
Arable lands	51.2	14.7
Forest area	26.0	44.2
Protected area in <u>1993</u>	4.0	11.0
Protected area in <u>2019</u>	6.0	23.69

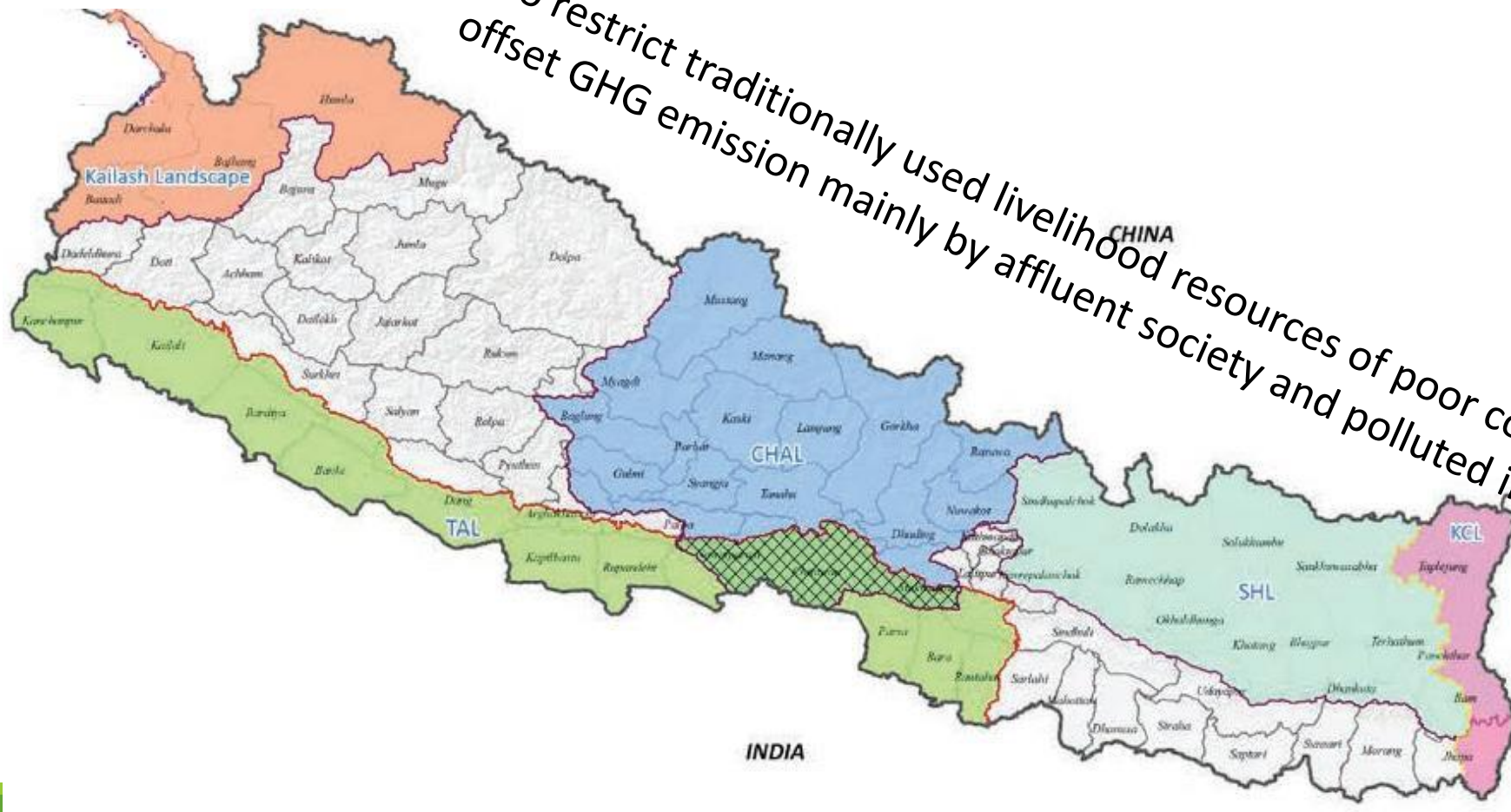
Recently, the Pri-minister KP Oli declared to make **30 %** national areas under protected area by 2030. International agencies and environmentalists insisted to make the protected areas 40 to 50 % land territory by 2050 (Leclère et. al. 2020).

Materials' sources:

- 1) Global resources use data was retrieved from world database: <https://databank.worldbank.org/source/world-development-indicators>
- 2) Centre Bureau of Statistics Nepal. Various issues including 2017, 2019.
- 3) HMG. 1988. Forestry Sector Plan 1988 MOF, Kathmandu
- 4) WWF, MOFP/Nepal and GEF. 2018. Integrated Landscape Management to Secure Nepal's Protected Areas and Critical Corridors. WWF/GEF Project 9437.
- 5) Ministry of Forests and Soil Conservation (MFSC) 2016. Conservation Landscapes of Nepal. Ministry of Forests and Soil Conservation, Singha Durbar, Kathmandu, Nepal
- 6) Cox, J. 2017. To Kill a People: Genocide in the Twentieth Century, New York and Oxford, Oxford University Press, pp 258.
- 7) Leclère, D., Obersteiner, M., Barrett, M. et al. Bending the curve of terrestrial biodiversity needs an integrated strategy. Nature (2020). <https://doi.org/10.1038/s41586-020-2705-y>

M#2 Government plan: Landscape scale **decarbonization**, livestock control and **wild animal corridor** zones

To restrict traditionally used livelihood resources of poor communities to offset GHG emission mainly by affluent society and polluted industries



Other forest resources uses

Grazing lands are forested for “reducing and controlling livestock numbers” as per Forest Sector Master Plan 1988, (p.148).

Livestock grazing is restricted in most communities.

Communities are locked out from the forest resources by externally induced regressive institutions. The institutions were induced as planned by international agencies for using the forest to offset GHG emission in 1970s.

Resources mainly trees: over-stocked, under-utilized and decayed in forests.

Nepal buy construction timber from overseas.

Forest Act (2076) dictated to retain existing carbon stock and other ecosystems services while utilizing forest resources. Uses of forest products meeting the conditions is technically impossible.

Impacts on mountain systems

- ✓ Induced institutions have acted as slow poison in sustainable mountain systems.
- ✓ Hampered livestock business and the mountain life style based farming systems.
- ✓ Increased food insecurity, economic hardship and social problems.
- ✓ The farmers lost food sovereignty and depended on foreign companies and corporate for farming inputs
- ✓ Loss of community natural heritages.

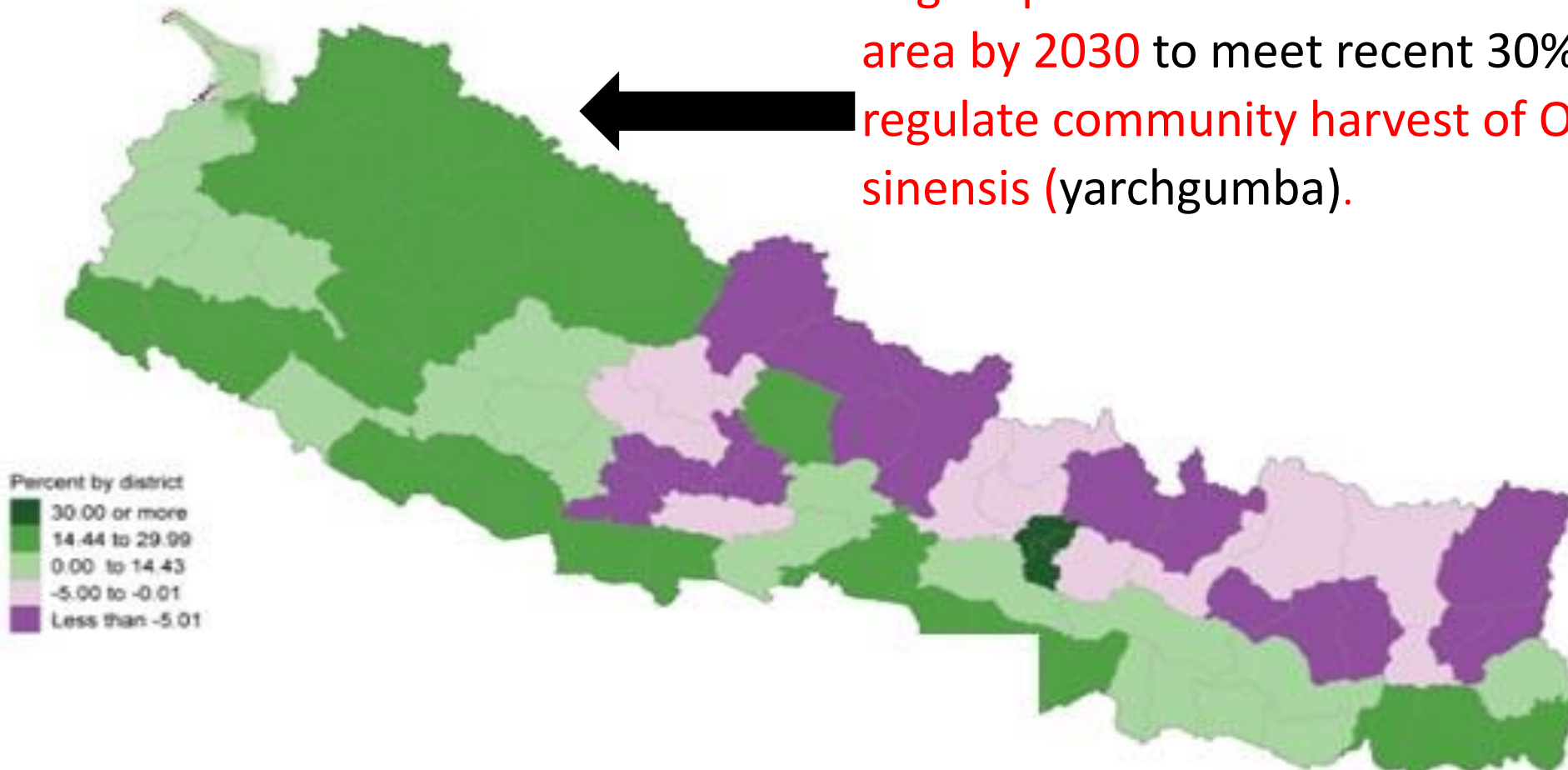
CONSEQUENCES OF TOO CONSERVATIVE LAND USES

- ✓ Prosperity of the mountain rests on grazing livestock. But the community loosing the breeds adaptable to mountain steep terrains and smart to escape from carnivorous wild beasts.
- ✓ Lost of farm biodiversity evolved in marginal lands and sustained on forest resources use.
- ✓ Destroyed **millenniums old pristine human settlement, a centre of** enriching and conserving mountain agrobiodiversity.
- ✓ Destructed the mountain social-ecological systems.

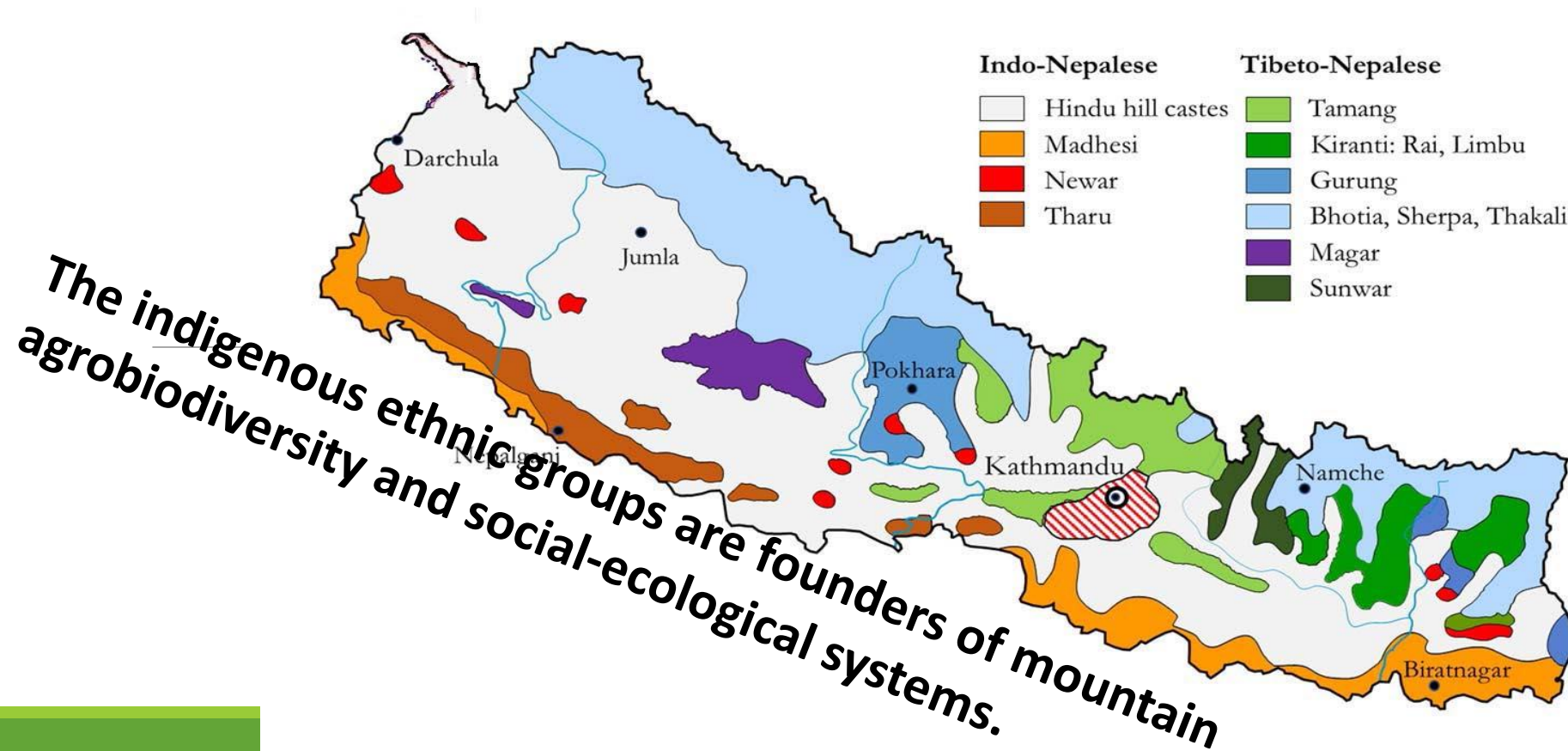
M#3. Human migration effect of the protected area activities.

- Human depopulation in hard conservation activity region (north east).
- Population increased in soft conservation activity region (even north west).

Region potential to be used under protected area by 2030 to meet recent 30% target . To regulate community harvest of *Ophiocordyceps sinensis* (yarchgumba).



M#3 Indigenous ethnic groups settled in the mountain since 15000 years. Aryan (Bahun & Chhetri etc) ethnic groups arrived & settled on fertile lands in lower hills and valleys. Then the indigenous groups **squeezed** to uphill & marginal land areas. If these groups had used the resources like others, most biodiversity resources would be gone as it happened in European countries



Intolerable issues

1. **Displacement of** Adhibashi (indigenous groups) **from their original habitats.**
2. Some of the communities are frequently maltreated by government officials.
3. Exacerbated economically and socially suffering of poor communities and indigenous ethnic communities.
4. **Destroyed their** pristine **social and cultural systems and resources.**
5. Drove them to be involved in the job with high life risk and social stigma.

Intolerable issues: Cont'd

- ❖ Declined populations of almost all tribes of the indigenous ethnic groups.
- ❖ Some of the tribes are **dwindling to extinction**, a **human biodiversity loss**.
- ❖ Result of partnership political activities and institutions of local elite ethnic group and international agencies supported by developed countries
- ❖ Increased risk of **ethnic violence and armed conflict**.
- ❖ **The disgusting outcomes on poor communities resulted by political actions and for luxury or other benefits of powerful groups can be called a genocide.**
- ❖ **Note:** Study showed hardly any agency say genocide intension. Processes and outcomes of actions should be evaluated to determine whether or not genocide (cox 2017)

Policy strategies: Forest related problems

- a. Radical land use planning and implementation for **complementary uses** of agricultural and forest resources.
- b. Radical changes in the **regressive laws and practices** related to the land resource management.
- c. Halt current **landscape scale decarbonization policy and program**.
- d. **Manage** community based forest resources **for multipurpose uses**.
- e. **Forestlands should be managed in** farming friendly model.
- f. **Farm-forest integrated production systems**.

Policy strategies: protected area problems

- a. Down size current protected areas,

- b. **Radically Amend** protected areas laws and other policies.
- c. **Habitat resources management model: Give up naturally intact model and practice productive model similar to other countries.**
- d. Target on endangered species.
- e. Multipurpose management of resources allows coexistence of wild animals and human in same territory.
- f. Provide **GPS based real-time information** of **roaming location** of harmful wild animals to farmers to reduce their crop and livestock loss.

Policy strategies: Mountain farming

- a. Foster transhumance practice to utilize alpine resources (pastures, medicinal plants and other herbs) which requires easy access to the resources including livestock grazing in transalpine forests during winter season.
- b. Promote the activities fostering the mountain social-ecological systems.
- c. Manage the community forest resource to promote mountain lifestyle based farming system. Many households in the mountain communities have meagre of land resources or other individual circumstances to take advantages of market or commercialization. They would be better off from the lifestyle based farming system. The farming system conserves mountain agrobiodiversity resources.

Policy strategies: Endangered human tribes

The indigenous ethnic groups have strong cultural, natural behavioural and social attachment with forest resources.

- a. Adopt their need and interest focused forest management model in the localities of the endangered ethnic tribes.
- b. Foster special local economic and social activities to retain youths of endangered ethnic tribes in communities.
- c. Awareness the communities on dwindling position of their society and potential halting measures.

Policy strategies: Inappropriate practices/ institutions

- a. International organizations are often served as vehicles and shelters of vested interest people or societies.

- b. Some people at government policy decision level have helped to achieve the mission of the agencies/people for personal benefits.
- c. Professional and other intellectual groups should watch and evaluate their activities. Sharing the information in social forums makes the culprits shameful and guilty feeling which internally discourages them to repeat the mal-practices.
- d. The professional education of forest officials is strongly founded on institutional settings and social values of developed countries. Its mismatch with local context has hindered them to work better for the community and nation. Educational change and institutional reorientation alleviate the problems.
- e. Requires fair and well informed public hearing practices to endorse any international policy. Consider strategic development position of the nation.

The end of the presentation.

A recapping cartoon

We know well how to handle the Nepali officials and other elites. Your money is well invested to lock their lands for your adventurous recreation and GHG emission storage forever.

We also dismantled their food systems and increased market of and your agricultural products

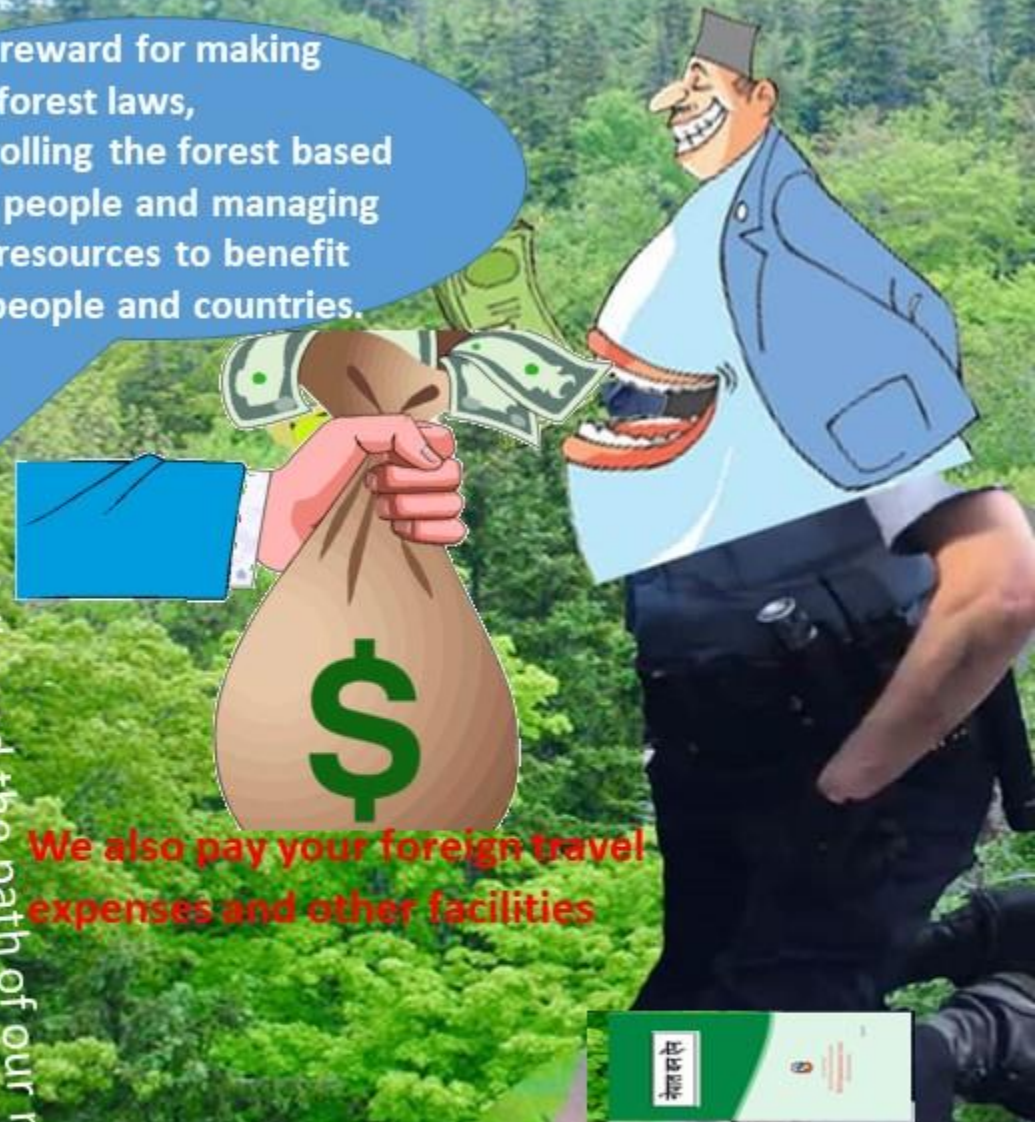


A gossip of representatives of international development agencies and donor countries

Your reward for making new forest laws, controlling the forest based poor people and managing land resources to benefit rich people and countries.

You well followed the path of our major donors towards indigenous people

We also pay your foreign travel expenses and other facilities



Indigenous people

