# CHANGING LANDSCAPE IN THE HIGHLANDS OF NEPAL, SIKKIM-INDIA AND PAKISTAN:

# A PHOTO JOURNEY

HELVETAS Swiss Intercooperation | NEPAL

RIGHTS + RESOURCES

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HELVETAS Swiss Intercooperation Nepal produced this photo journey in collaboration with Rights and Resources Initiative. This is a part of series of publications on forest tenure that we have been doing since 2009 and it aims to demonstrate some evidences of changes in the landscape possibly as a result of forest tenure policy. I would like to thank all the contributors involved in this publication and offer special thanks to Dr. Bharat K Pokharel, Fritz Berger, Anupama Mahat Bidari and Rabin Raj Niraula. I would also like to acknowledge the contribution of Dr. Ganga Ram Dahal (RRI), Dr. M. Al-Amin (Bangladesh), B.B. Chhetri (Bhutan), Dr. D. Suryakumari and Dr. Jon Elamon (India), Dr. Jawad Ali, Arjumand Nizami and Amir Zada (Pakistan), Shanti Karanjit Ojha (Nepal) and Juerg Merz of HELVETAS Swiss Intercooperation Nepal.

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HELVETAS Swiss Intercooperation is a Swiss association devoted to development and cooperation. It works towards the elimination of the causes of marginalisation and promotes solidarity with the poor in the south and the east. Its mission is to actively contribute to the improvement of the living conditions of economically and socially disadvantaged people in Asia, Africa, and Latin America. Currently, it runs programmes of co-operation in 30 countries including Nepal.

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The Rights and Resources Initiative (RRI) is a strategic coalition comprised of international, regional, and community organizations engaged in development, research and conservation to advance forest tenure, policy and market reforms globally.

The mission of the Rights and Resources Initiative is to support local communities' and indigenous peoples' struggles against poverty and marginalization by promoting greater global commitment and action towards policy, market and legal reforms that secure their rights to own, control, and benefit from natural resources, especially land and forests. RRI is coordinated by the Rights and Resources Group, a non-profit organization based in Washington, D.C.

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# About this publication

Helvetas Swiss Intercooperation Nepal in collaboration with RRI undertook a study in 2011 on a topic of forest land tenure assessment in the South Asia sub-region. The purpose of the study was to generate information and knowledge about the situation of forest land tenure in the sub region and the possible way forward for land tenure reform. The studies show that forest land tenure has a direct impact to the change in land use pattern in general and forest cover change in particular. This photo journey is an evidence of such change. Many photographs presented here speak by themselves.

Nepal's forest land tenure reform for example has now a visible impact on landscape and land use system. In the mid hills of Nepal, forest area and density have been found increased; deforestation and degradation are reduced. However, in Pakistan, forest land tenure reform is yet to be seen, as a result the trend of degradation and deforestation is different. The photographs from Sikkim-India nevertheless show improvement in forest and greenery but it is yet to be researched how land tenure has an effect to this change.

The photographs presented here in this publication have demonstrated some evidences of the findings of the forest land tenure assessment in South Asia sub region. We hope that this helps to understand the relationship between forest land policy and landscape change better. A point of caution to be considered however here is that this exercise of linking photographs with the forest land tenure policy has been done in different time frames, and the direct linkage between the policy and the landscape change has to be further triangulated with further research.

Although some of the photographs used in this publication, especially that of rural Nepal in 2010 are taken with the financial support of Swiss Intercooperation and ICIMOD and that of Kalam, Pakistan in 2005 by SDC, the views expressed in this paper are those of the authors and do not necessarily represent those of funding agencies and the publisher.

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Also the contributions from Parsuram Niraula and Usha Aryal Dahal were valuable for the development of this publication.

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# Introduction

Photographs presented in this photo journey are expected to serve as a resource material for those who believe in evidence based policy advocacy. Changes in landscape of Nepal, Sikkim-India and Pakistan clearly demonstrate that there must be direct relationship between the trend of forest land tenure reform and the change in forest landscape.

In South Asia in general, centuries old indigenous system of forest tenure was disturbed as forests were nationalised and tenure was changed from informal community led arrangements to state controlled tenure governed by formal regulations. Rights of local and indigenous communities were curtailed and the government harvested the forest for revenue generation. Hence, both land and the trees belonged to the government including the tenure of certain trees that grow on private land. This has resulted severe degradation of the scarce forests resources.

A reflection of Pakistan's forest land tenure policy for example can be made in relation to the changed photographs of the forest landscape where the trend of land deforestation and degradation is still on going. Similarly, study can be undertaken in Sikkim and Nepal to see the relationship between the forest landscape quality and the forest land tenure reform where the trend of deforestation and degradation has been reversed.

The history of forest land tenure reforms in Nepal goes back to the establishment of a state agency in 1942 with the intent of managing forest and forest resources by the state instruments without much involvement of local people. The Private Forest Nationalization Act was promulgated in 1957 in order to strengthen State's control over forest resources and to take over the forest and pastureland that were in the hands of feudal lords. However, after realizing the need for people's participation in forest management, the National Forest Plan 1976 provided a new policy direction that recognised the need of partnership of the state with the local people in protecting and utilizing forests. Various underlying drivers have affected changes in forest tenure in Nepal, which include: champions from diverse background, who have acted as change agents; wind of participatory approach in forestry which has been contextually defined; new policies including the Master Plan for Forestry Sector (MPFS)1989 which paved way for a democratic and progressive forestry sector, the Forest Act 1993 followed by the Forest Rule 1995 which gave absolute right to local communities in managing their community forests. Photographs compiled in the photo journey demonstrate that forest landscape of Nepal have improved since the forest land tenure process started in the 90s. It can also be said that these changed photographs are the evidences of the success of Nepal's community forestry. It shows that local communities are the best vehicles to conserve forests and to achieve the objectives of sustainable forest management. So any forest land tenure reform is to aim to strengthen the process of community forestry.

Similarly, the history of forest land tenure reforms in India also goes back to British colonial time when centuries' old indigenous system of forest tenure was changed by the British colonial power through the promulgation of the Act in 1865. This Act covered greater India which included the existing territories of Bangladesh and Pakistan. Forests were nationalised and informal system of community management system were replaced largely by formal regulations. Until 70s India faced continued forest degradation and conflicts between the forest department and the rural communities continued. It was only in the early 1970s that policy change to promote community participation on forest lands was started in India. The National Forest Policy, 1988 lays emphasis on the conservation of forests and marks a departure from the earlier policy where the supply of wood as raw material for industrial use was of prime importance. It further emphasises on joint management of forests involving village and rural population as Joint Forest Management (JFM) practice, a nationwide programme of forest reform. Further to this, India recently has promulgated a new Act called Forest Rights Act (FRA) to empower local tribal groups to own the forest land in their local territory, the impact of which is yet to be seen on ground.

Although state level forest land tenure policies vary in India, and it is not known how much impact that the central government policy has an effect on forest cover change on ground. Some photographs of Sikkim of the 90s and now presented in this booklet demonstrate that forest landscape in Sikkim in general has improved tremendously in the last 20 years because Sikkim has a good forest land tenure policy which ensures the rights of local communities on their village forests, and government has strong partnership with the local communities for the protection and management of local forests.

Unlike in Nepal and India, the forest policy reform in Pakistan is yet to take place in terms of recognising local community's tenure rights. In result, the impact of policy on ground at landscape level is somehow problematic. Most of the photographs show that the forest area is seen to be deforested and degraded.

Location of photographs

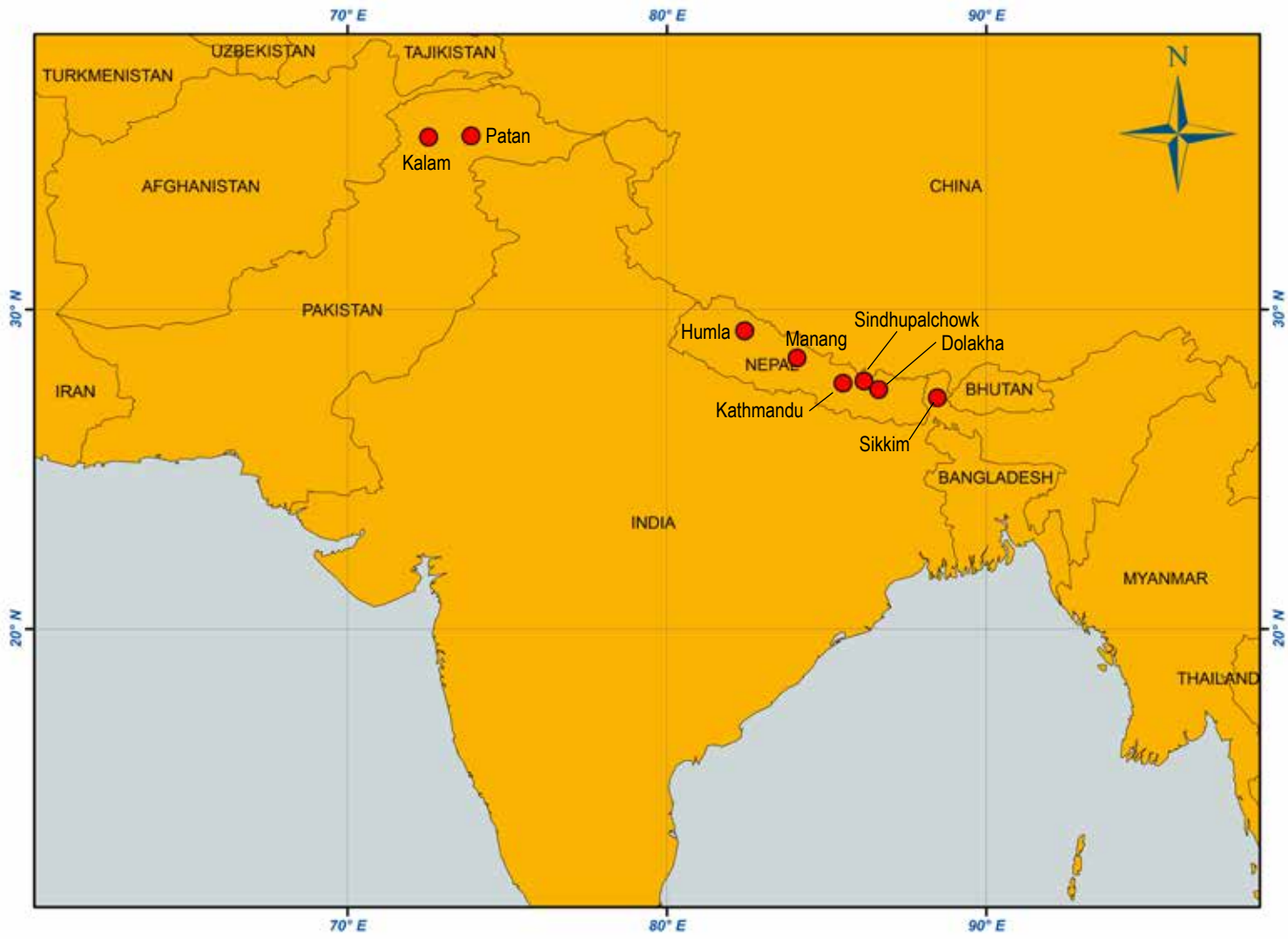
This photo journey takes you through various locations in Nepal, Sikkim-India and Pakistan. The collection of the pair of photographs from these countries is intended to show changes over time. Hope readers will enjoy the photo journey. While going through them, readers are requested to think about the relationship between the changes shown in each pair of photographs with the forest land tenure policy and local system of forest management. There are altogether 40 pair of photographs from various locations of Nepal, Sikkim-India and Pakistan. Of which, 26 pair from Nepal cover photographs from Dolakha, Ramechhap, Sindhupalchowk, Kavrepalanchowk, Kathmandu, Manang, Mustang and Humla districts. They range in altitude from 765 meters to 4500 meters whereas altitude provided in the caption is approximate figure as the landscape ranges from valley bottom to mountain top. The 5 pair of photographs from Sikkim are of Gangtok city, West Sikkim, Rangit and Teesta area covering the altitude range of 210 meters to 1750 meters. While the 9 pair of photographs from Pakistan cover various locations in Kalam, Swat and Kohistan districts. They range in altitude from 600 meters to 2350 meters.

Only the highlands of South Asia have been selected for the purpose of this photo journey because of the availability of photographs for comparison of the past and the present. Although the pictures in this booklet are not primarily taken for the purpose of the analysis of the impact of tenure policy, they provide the evidences of the findings of the country reports on forest land tenure in the respective countries that we carried out last year. Similarly, all photographs do not necessarily have same baseline periods but the range of changes that have taken place in the landscape between the baseline years of 1973 and 1999 with that of 2005 and 2011 are compared. The year of difference between the pair however vary. While some of the photographs in comparison were taken during similar seasons, few were also taken in different seasons. This however does not affect the basic look and the main thrust of the message they give.

We have to admit that this is not the product from a scientific study but a material to encourage scientists and researchers to undertake further study on the relationship between the trend of forest land tenure policy, local practice and the changes in the landscape.

Now, let us take a pleasant photo journey to these South Asian Highlands through the pages that follow below. The main locations of the photographs are represented in dots in the following map.

Location map



Nepali farmers in the hills are the champions of sustainable agro-forestry!

Sanopakhar, Sindhupalchowk, Nepal
Altitude:1650m

May 1972

दिगो कृषिवनका लागि नेपाली किसान निपुण छन्।

March 2011

Residents of this area in Lamosanghu seem to have a good knowledge of the importance of trees on their private land as agro-forestry practice. In the late 70s when the concept of community forestry had just emerged, forest products were scarced in the national forest, farmers had already protected trees in their private land as adaptation strategy. Along with the growth of these trees, 39 years later, more houses and more trees could be seen. With time, thatched roofs of the houses have been converted to stone and corrugated roofs as an indicator of more prosperous situation.

# Economy versus ecology… can balance be struck?

Kharidhunga, Sindhupalchowk, Nepal
Altitude: 2600m

November 1973

पर्यावरण र आर्थिक विकास दुवैको सन्तुलन जरुरी छ।

May 2010

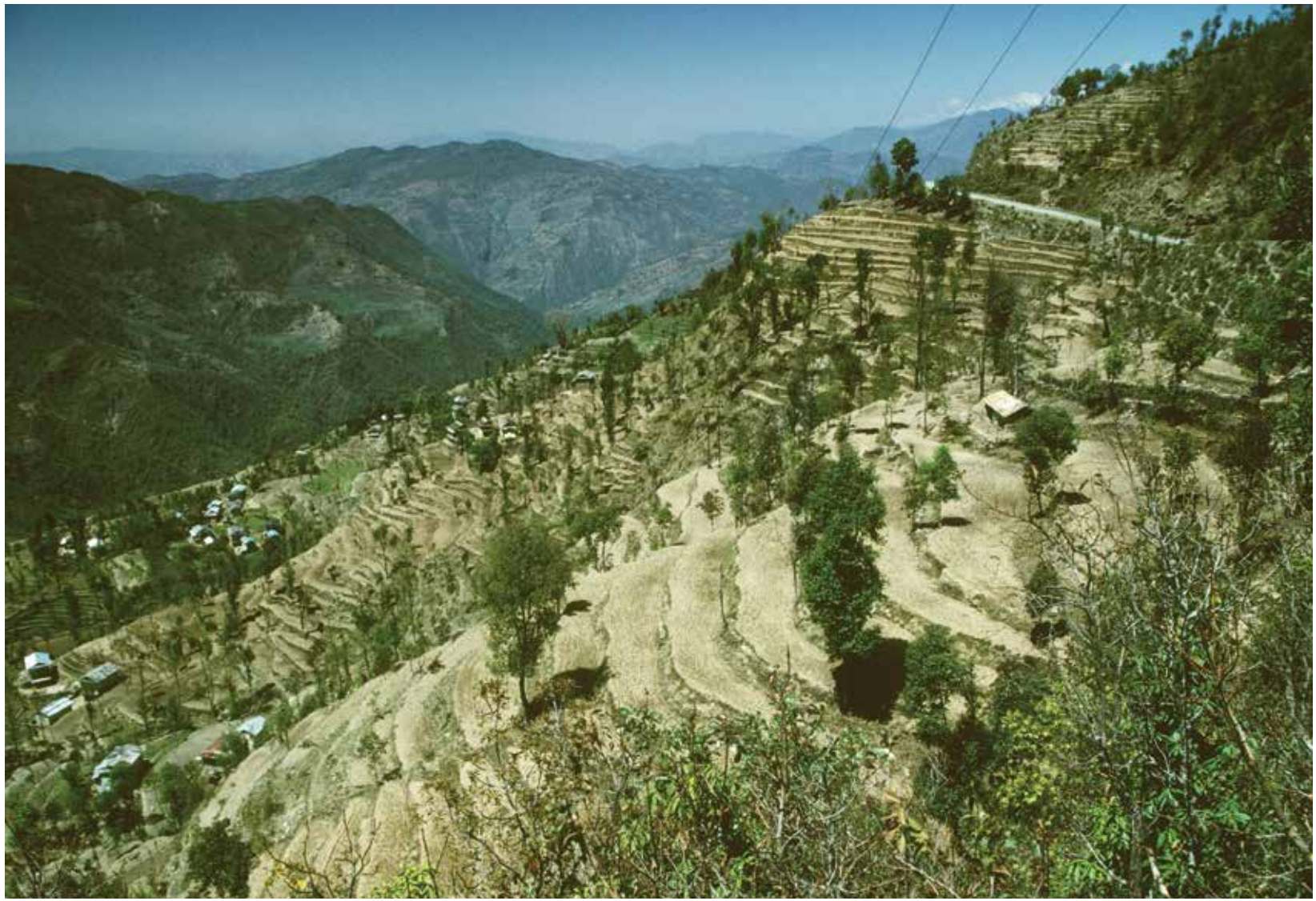
The place was a pasture land and now connected by a good road, the way to Charikot. This land has been leased out by the government to the magnesite quarry contractor. Along with the quarry, there is little greenery, a small patch of plantations established during the early 80s, now looked after by local communities. Had this land been handed over to the local communities for forest protection and management, the situation would have been much better in terms of ecology but not so much from economic point of view. The need of the hour, however is to strike a balance between the economy and ecology and to establish partnership among government, local communities and private sector entrepreneurs.

Need of greenery on farmland have been widely realized in the hills of Nepal

Sanopakhar, Sindupalchowk, Nepal
Altitude: 1650m

December,1974

बारीमा रुख लगाउनु पर्दछ भन्ने कुरा नेपाली किसानले उहिलेदेखि महसुस गर्दै आएको कुरा हो।



April, 1998

As could be seen in the two pictures, trees have also been kept in the bari land in Sanopakhar, Sindhupalchowk where barley and millet are grown. Establishment of road has brought new economic opportunities; people have become more aware of the importance of trees not only in community land which is on the background but also on their private land as important part of sustainable farming system and new economic opportunity.

Sustainable development is not possible in the absense of local institutions

Sunkoshi, Sindhupalchowk, Nepal
Altitude: 765m

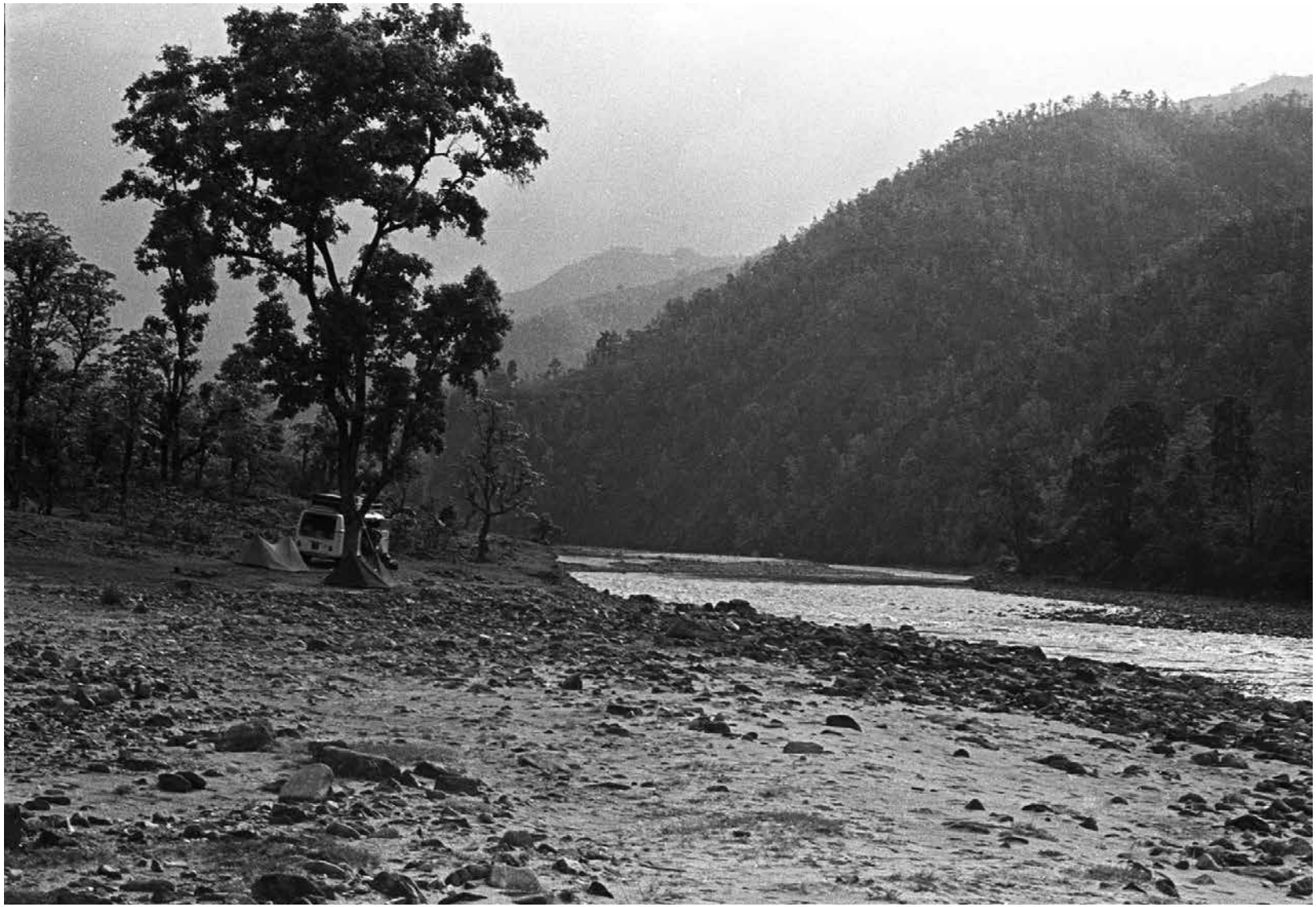
April 1974

स्थानीय तहमा सक्रिय संस्थाहरू भएन भने दिगो विकास सम्भव छैन।

May 2010

The pictures taken in a gap of 36 years have displayed tremendous change along the river. There are new settlements emerging in the bank along the road. The trail bridge has been converted to a concrete bridge but the surrounding forests look rather degraded now. These indicate that local communities need adequate rights and responsibilities in order to help protect trees and forests; else these natural resources would face the tragedy of commons. Forests along the steep edges along the river are very important for flood protection and have high ecological value regarding reproduction and animal habitat.

Water, if harnessed properly, can promote eco-tourism and economy



Sunkoshi river, Sindhupalchowk, Nepal
Altitude: 780m

April 1974

जल र जङ्गलले मङ्गल हुन्छ भन्छन्। पानी र वन जोगाए पर्यटन व्यवसाय पनि फस्टाउने रहेछ।

March 2011

With the enhancement of water based eco-tourism mainly rafting, this area along the river Sunkoshi has realized rapid urbanization. More hotels have been established after felling trees along the road in the left side of the river but rest of the forest remain well managed which also contributes to aesthetic value of the area.

Secured tenure rights of local communities can change the face of the landscape

Dandapakhar, Sindupalchok, Nepal
Altitude: 1800m

December 1978

स्थानीय समुदायले अधिकार र मौका पाए भने नाङ्गा डाँडापाखाको मुहार बदल्ने रहेछन्।

August 1998

These pictures show the evidence of change that community forestry has brought in Nepal. Secured tenure rights of local communities is provisioned in Nepal's Forest Act, 1993. From the earlier picture it is evident that then public land in Dadapakhar was degraded because of over grazing, government initiated plantation in the 80s and handed over the land to local communities in the 90s as community forests. The forest has been protected and managed by Community Forest User Group (CFUG) as per the approved group's constitution and the Forest Operational Plan.

New technologies indeed have brought changes in the Farming system

Nigale, Sindupalchowk, Nepal
Altitude: 2500m

July 1978

खेतीपातीलाई नयाँ प्रविधिले पनि राम्रो गर्ने रहेछ।

May 2010

Farmers in Nigale are now growing potatoes as summer cash crop which is supplied to Kathmandu. With this, they could now plant wheat in winter as seen in the earlier picture and potatoes in the summer as seen in the later picture. The seed potato farm established in 1978 with cooperation from Switzerland provided technical support to these farmers in trying out the new crop. Varieties are tested and nucleus seeds are produced in the farm. As an effect of increasing opportunities, the village settlement has grown together with trees on farmland. People are now using their agro land for multiple purpose- food, fodder and cash. This seems more sustainable.

If cared, forests can heal the scars of the fragile hills

Nala, Dolalghat, Sindhupalchowk, Nepal
Altitude: 780 m

April 1998

रुख बिरुवाले पहाडमा बाढीपहिराले बनाएको घाउ सजिलै निको पार्न पनि सक्छ।

May 2010

The two pictures depict contrasting situation of the same location-Nala. A very evident picture of change! During 1978, the hills beneath and above the road looked denuded and fragile, even the surrounding hills looked bare. Some efforts of bioengineering adapted by local people are also seen. In 2010, the same location is all green. Landslide erosions have recovered and farm looks better. An evidence of the power of local communities!

## New settlement emerged with new trees

Serabesi Valley, Dolakha, Nepal
Altitude: 1000m

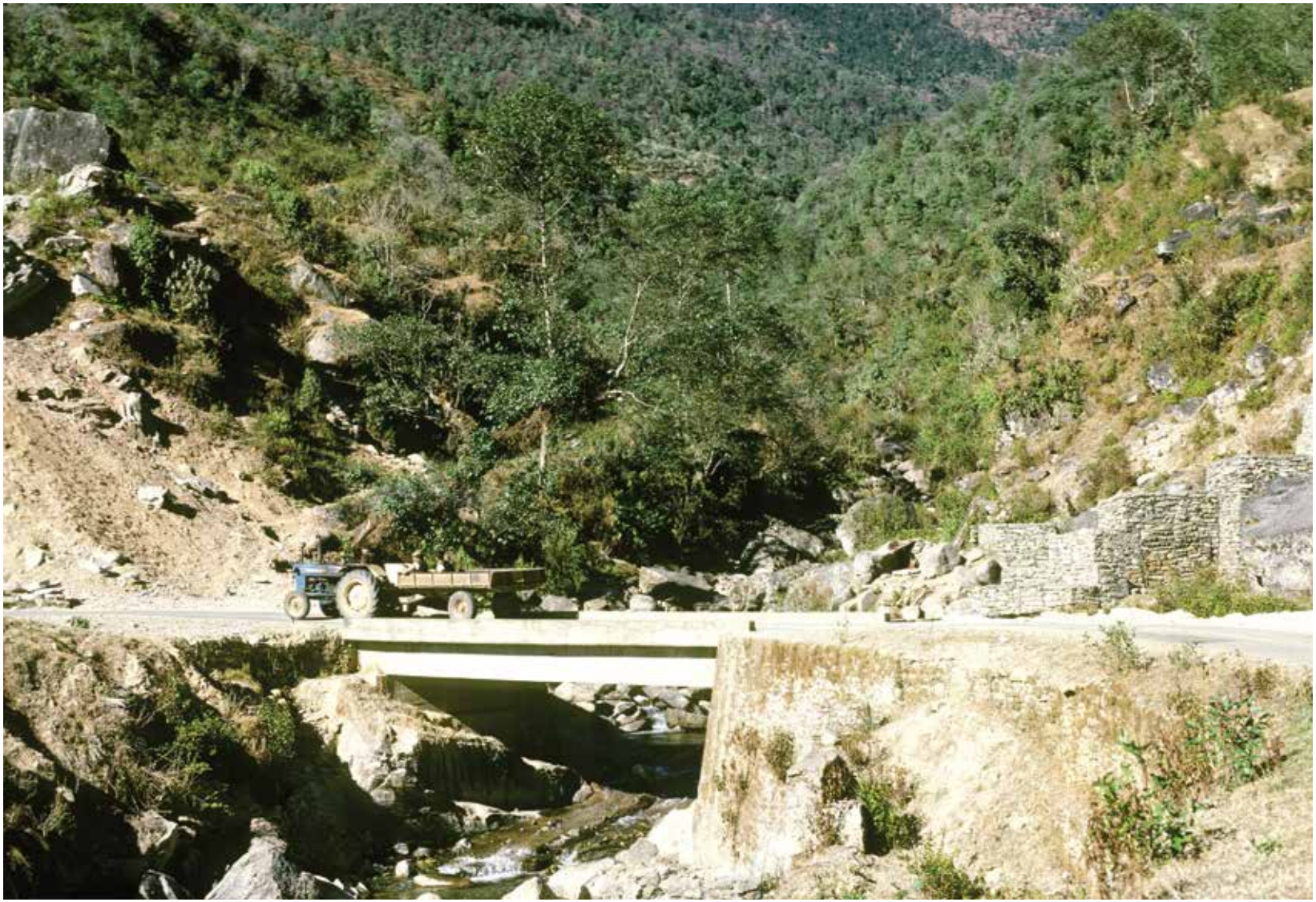
October 1974

नयाँ बस्तीसँगै रुखहरू पनि बढ्दै छन्।

May 2010

These photos capture the same location in a gap of 37 years. As can be seen in the earlier photo, the area was heavily flooded destroying bridges, agriculture and affecting settlements. After the flood, people got aware and promoted growth of trees near river banks and in their private land. Later both settlement and trees grew side by side and the area is now greener and ecologically sound. Hence, if forests and tenure rights are guaranteed, local people could rehabilitate land even faster. It shows that trees and settlements can grow together.

Yes, infrastructure development and forests do go hand in hand!



Charnawati, Dolakha, Nepal
Altitude: 1850m

February 1985

भौतिक विकास र वनजङ्गलको विस्तार सँगसँगै जान सक्ने रहेछ।

November 2005

The 1985 picture shows a bridge over the Charnavati river which was flooded in 1986. Later, the bed of Charnavati was stabilized with the help of bioengineering techniques and a new steel bridge constructed as could be seen in the photo of 2005. The fragile slopes along the “green-road” have been well retained in 20 years time with the growth of Alnus nepalensis (uttis) trees. Constructions of such road that use little machines do not only generate more employment and create economic opportunities but also contribute in sustaining development through the interaction of environment and economy. Local community groups are now protecting this area.

Can high altitude biotope survive along the new road?

Tansing La Pass, Dolakha, Nepal
Atitude: 3150m

October 1996

सडक विस्तारले उच्च हिमाली रमणीय ठाउँलाई बिगार्ने त हैन?

June 2010

The landscape captures the Tansing La pass and a wetland in the plain area. The forest has a variety of trees including juniper, spruce and rhododendron. The spruce forest was heavily destroyed on a forest fire in 1973. Now, it is more or less rehabilitated with the help of locals. A new roadway has come to the pass. Let's hope that it brings new opportunities in the region through ecotourism. Forest is kept intact and managed sustainably to attract more tourists. This unique wetland should be protected from further encroachment by the construction of infrastructure.

Can we save pastureland from converting into farmland?

Hanumanteswar, Dolakha, Nepal
Altitude: 2400m

March 1998

खेतीपातीकै लागि पनि चरन क्षेत्र पनि त चाहिन्छ नि।

November 2010

Lack of appropriate policy and related local institutions, pasture land is gradually vanishing and being converted into forest and farm land in high altitude areas of Nepal. This has also resulted into change in the livelihood strategy of the local people. Near a new settlement on the last pass along the road to Jiri, farmers have changed the land use pattern to make their living through cultivation. A balance approach to sustain pasture, forests and farm is necessary.

Can we contemplate once?…..where are the paddy fields gone?

Swayambhu, Kathmandu, Nepal
Altitude: 1380m

August 1998

एक पटक घोत्लिएर विचार गरौं त! घरहरू त बढे तर काठमाडौंको खेतीपाती र वनजङ्गल कता हराए नि!

February 2011

In 1998, Kathmandu valley had few brick kilns, still agro land was there. People kept few trees on private and agro land as well. The fertile valley soil produced rice and vegetables. However, the second one is a very remorseful picture of the same valley. Rapid urbanization has promoted concretization. Possessing a house in Kathmandu has been every Nepali's dream and indeed everyone seems to be eager to fulfill theirs as private property. Let us make the growing town, a green town with more greenery! Kathmandu valley deserves to be a green valley! Like in the hills, if neighborhood and municipalities work together in partnership, it is possible to make Kathmandu green.

# Filthy Bagmati River: A big embarrassment to civilized Kathmanduites!

Kupondole, Kathmandu, Nepal
Altitude: 1350m

June 1989

दुर्गन्धित बनाइएको बाग्मती! "सभ्य" मानिने काठमाडौँबासीका लागि लाजमर्दो विषय भएको छ।

February 2011

By 1989 the river Bagmati in Kathmandu was already much polluted. In 21 years time, the river got further degraded as people felt comfortable draining their sewage system in this holy river. Squatters encroached over the land along the bank for settlements. This is a challenge to the urban planning system of Kathmandu. It is very clear that without active participation of citizens, local communities and private sector, it is impossible for the government to keep Bagmati safe and clean.

Road side plantation would have made the town more beautiful!

Dhulikhel, Kavrepalanchowk, Nepal
Altitude: 1400m

April 1998

सडक किनारमा हरियाली भइदिएको भए यो सहर अझ कति राम्रो देखिन्थ्यो होला!

February 2012

These photos taken in a gap of 13 years show the effect of urbanization. The road has been expanded covering certain meters of the land that were earlier used for cropping. Rests of the crop land have been concretized to build shutters for shops which have become far better sources of income. Every year, Dhulikhel town hosts thousands of tourists, who would love to enjoy natural environment together with the food and hospitality that Dhulikhel offers!

Does this road and farmland sustain without green tops?

Tamakoshi, Ramechhap, Nepal
Altitude: 500m

October 2005

पहाडको टुप्पोमा वनजङ्गल भएन भने सडक र खेतीपाती दुवै स्वाहा: हुन के बेर!

November 2010

These pictures capture the landscape of lower Tamakoshi in Ramechap. Within five years the road has been extended up to the hill top. Nevertheless, the agro land remains unchanged. The forests in the background are community forests and the efforts of local communities to protect the fragile slopes in the middle hills of Nepal are considered as success stories. Community forestry has not only brought greenery but also promoted green economy in the area. Because of community forestry, road has been stabilised.

Ghyaru of Manang would have been better with more trees on terraces!

Ghyaru, Manang, Nepal
Altitude: 3670m

July 1978

मनाङका खेतीपातीयोग्य जग्गा त बाँझिएछन् नी!

July 2010

Mananges see more prospect in Kathmandu than being in Manang. Some of the land in the valley bottom of Manang not cultivated anymore as the population in Manang is increasingly becoming less dependent on agriculture. The situation in 1978 was different as Ghyaru would cultivate with buckwheat (phaper) and potatoes. In such land, growing forest on terraces could be a better option if domestic labour is scarce!

# Manang has a good prospect for eco-tourism

Manang Valley, Nepal
Altitude: 3500m

July 1978

पर्यावरणीय पर्यटनको लागि मनाङको भविष्य उज्ज्वल छ।

July,2010

Manang is attracting tourists because of its natural environment. Several lodges are built in the villages. A new road is being constructed to the Manang Valley which have brought new opportunities. Local communities are working collectively to promote eco-tourism.

# Land in Manang has been abandoned! Where does food staple come from?

Bhraka, Manang, Nepal
Altitude: 3450m

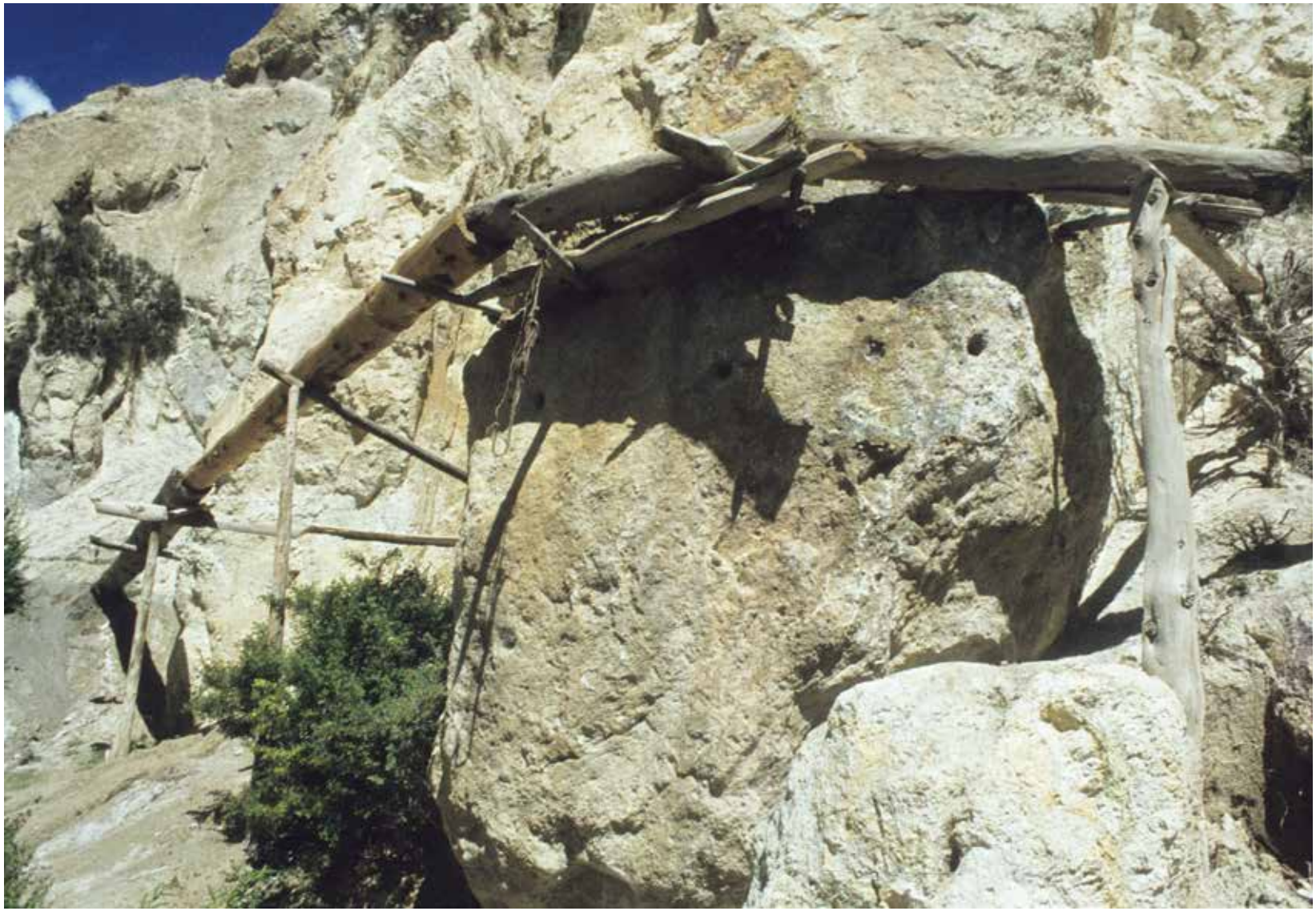
July 1978

मनाङबासीहरूले खेतीपाती गर्न छाडे जस्तो छ। अब अनाजचाहिँ कहाँबाट आउँछ त?

July 2010

The photo of 1978 shows women weeding a buckwheat field. That time all arable land was cultivated. In the background, the village of Bhraka is visible. No hotels or lodges where available in the villages during that time, as the area was newly opened for tourists. By 2010, only few elderly Mananges are left in Bhraka as most of the populations from Manang have migrated to Kathmandu. Due to availability of opportunities in the local hotels and other tourism related sectors, the plain arable land has been left uncultivated. Diversification of opportunities reduced dependence over land but deciding what to do with these land is a dimension the Manages should ponder on.

Where there is a will and ownership, there is a way and innovation!



Tanki, Manang, Nepal
Altitude: 3800m

July 1978

जहाँ इच्छा र स्वामित्व हुन्छ, त्यहाँ नयाँ सिर्जनाको लागि बाटो खुल्छ।

July 2010

In 22 years, irrigation technology in Manang seems to have improved. The wooden water supply system of 1978 has been replaced by a plastic pipe. Mananges can now afford polythene pipe to replace the wooden one because they have secured ownership of land as their property. The learning has been that where there is ownership, there is innovation and contribution from local communities.

Flood, one of the effects of climate change is a serious threat to khet land

Kagbeni, Mustang, Nepal
Altitude: 2800m

July 1978

जलवायु परिवर्तनको कारणले ल्याउने बाढी खेतका लागि अभिशाप हुन सक्छ।

July 2010

This pair of photos from 1978 and 2010 shows the damages done by Kali Gandaki river on the farm land of Kagbeni, the way to Muktinath. More and more agro land is being washed away by the river floods. Large portion of the local government's budget is spent on road, very little on forests, environment and social development sector. Collective climate adaptation strategy could be one of the solutions to these types of disasters.

Only strong local level institutions could regenerate the disappeared trees

Simikot, Humla, Nepal
Altitude: 3080m

October 1999

सशक्त स्थानीय संस्थाले मात्र रुखबिरुवाको राम्रो जगेर्ना र रेखदेख गर्न सक्छन्।

October 2010

Very few trees have survived in 11 years in this very difficult region of Humla. Although people still depend on livestock and subsistence agriculture for which forests play an important role, the forest is vanishing as seen from the later picture. The main reason is unknown but lack of local institutions and collective action, technical and institutional support from the state and difficult changing climatic context could be the main reasons for deforestation and degradation. Such condition could be improved by strengthening the institutional capacity of local groups, allocating more rights and responsibilities to local communities.

Forest land can be rehabilitated if tenure system is well defined

Kermi, Humla, Nepal
Altitude: 2900m

October 1999

स्वामित्व, अधिकार र कर्तव्यको स्पष्टताले मात्र वनजङ्गलको सुरक्षाको ग्यारेन्टी गर्न सकिन्छ।

October 2010

The first picture captures degraded land on the steep slope of the Karnali River which was used for shifting cultivation. The later picture shows the growth of some young pine trees in the area. The future of the sustainable growth of these pine trees and pasture land very much depend on the tenure rights of both individual and communities and their roles and responsibilities for the protection and management of such resources.

For increased settlement of Simikot, where do food and wood come from?

Simikot, Humla, Nepal
Altitude: 2958m

October 1999

सिमीकोटको बढ्दो बस्तीलाई अन्नपात र घाँसदाउरा कहाँबाट आउला?

October 2010

In 11 years period, Simikot of Humla has made two significant changes –more settlements and electrification. This can be primarily attributed to the increasing tourism in the district that people want to poses house closer to the airport so that they could generate income. As of yet, forests, and agro-land remain as they are. Striking a balance between the production of wood and food would help Simikote to flourish further by promoting eco-tourism based economy.

Sustainable pasture land management can only sustain these livestock in Humla

Nara Nagna Paas, Humla, Nepal
Altitude: 4580 m

October 1999

हुम्लाको पशुपालन व्यवसायको दिगो वनका लागि चरन क्षेत्रको दिगो व्यवस्थापन हुनु पर्‍यो नि।

Photo: Prakash Khadka

October 2010

The pictures speak by themselves; there are no changes in the status of the trail and pastureland in 11 years. However, a new road under construction from Hilsa to Simikot replaces the old pathway. As seen in the later picture, the herd of sheep is on the way to winter pasture in lower Humla. The sheep are often used to carry salt (alati) and other commodities to be sold in the local market. Better policies regarding pasture land management and availability of extension services would help in the conservation of these pasturelands so that people in the region could benefit more through livestock keeping which is one of the major source of livelihood.

Humla has an unique fragile landscape which needs to be protected

Hilsa, Humla, Nepal
Altitude: 3800m

October 1999

हुम्ला जति रमणीय र फरक छ, त्यति कोमल पनि। यसको संरक्षण जरुरी छ।

Photo: Prakash Khadka

October 2010

Geographical remoteness and harsh environmental conditions make Humla an isolated land least affected by any policy or development initiatives. Hence this area has seen very few changes in 11 years. The change on the bent of the Karnali River near Hilsa is due to the construction of new road which could be seen as a line from the right top. The excavation materials seem to have drowned over the edge. Such rolling down of stones and gravels is damaging the very sensitive vegetation (see green spot) as it will take decades to recover.

## Good forest policy brings new institutional mindset to create new forests

Tista River, Sikkim-India
Altitude: 210-260m

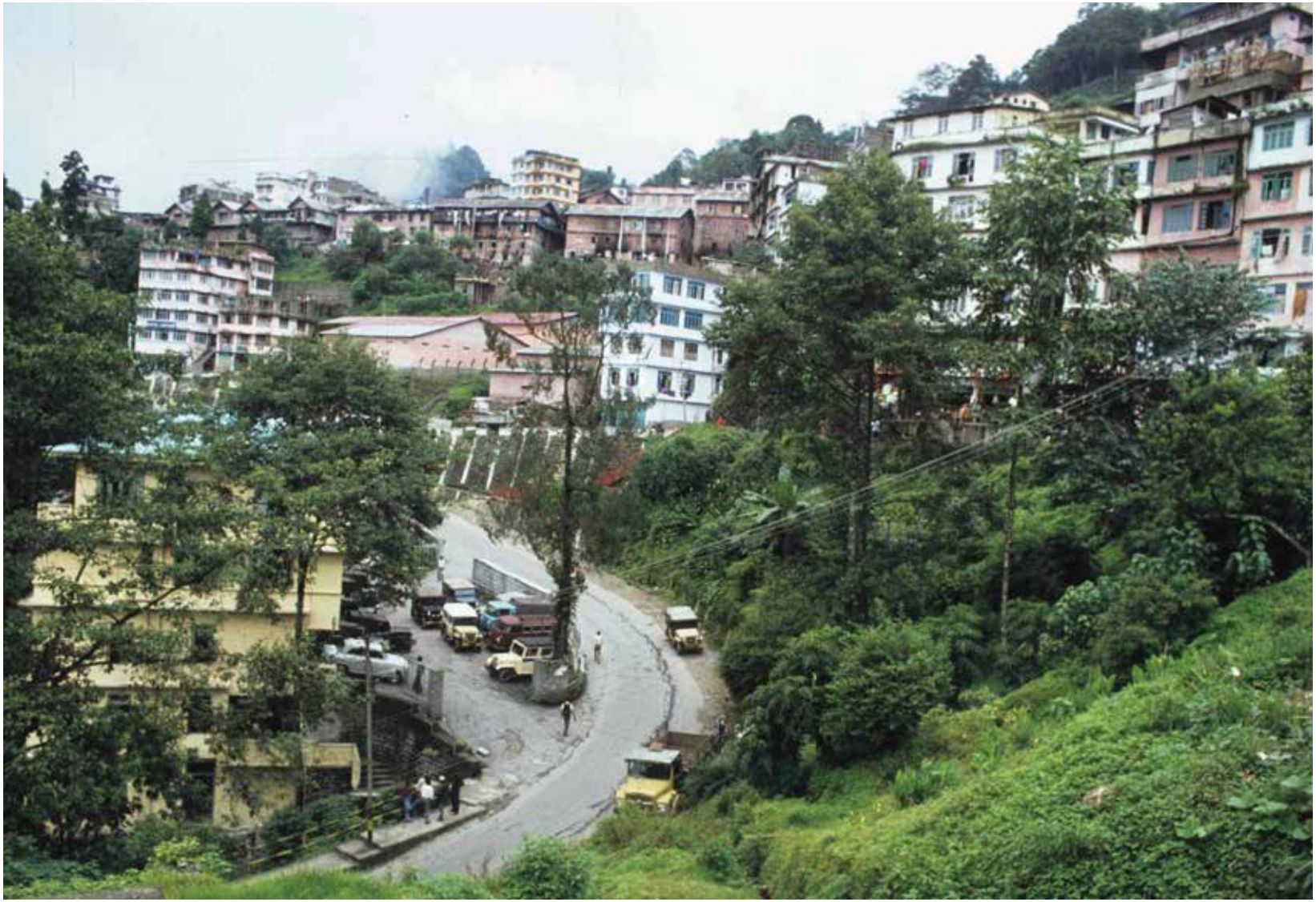
July 1979

राम्रो वननीतिले नयाँ ढङ्गको शोच र व्यवहारको खाँचो महसुस गराउँछ अनि मात्र नयाँ वन बनाउन सकिने रहेछ।

December 2010

These pictures taken at the junction of rivers Rangit and Tista captures Forests along the roads in both sides of the river which are being well managed. Similar to the cases of the mid hills of Nepal, road did not lead to destruction of forests. The other hill, where the standpoint of the photo is located seems to have done massively well as the regenerated forests have been very well managed.

# From green to grey?: Changing face of Gangtok



Gangtok City, Sikkim - India
Altitude: 1700m

August 1979

हरियोबाट खैरो पो हुँदैछ गान्टोक बजार त।

December 2010

The Gangtok city in Sikkim, which was green in 1979, now after 31 years looks a bit grey with concretized road and buildings. Together with infrastructure development, Gangtok city deserve to have more greenery as its ornament!

More forests have come but where have Rhododendrons gone?

Tashiding, Sikkim - India
Altitude: 1750m

December 1982

वनजङ्गल त बढेछ तर गुराँस कता भागेछ?

December 2010

Urbanization followed the road construction in Tashiding in 1980. This means more agro land was used for building houses and people started looking for options beyond agriculture. Yet forests have been protected and more agro farming is seen. Is it due to the government's progressive forest tenure policy or awareness that comes from other parts of the world about community in public land and agro-forestry in private land?

Good forest governance system brings more forest and sustainable farming system

Chojo, West Sikkim - India
Altitude: 1000m

July 1982

वनमा सुशासन आएपछि वनजङ्गल र खेतीपाती दिगो रूपले व्यवस्थापन हुन सक्ने रहेछ।

December 2010

The forests have been well maintained between 20 years while the area has been electrified. Until the seventies, shifting cultivation was practiced regularly in West Sikkim. However, people have changed their land use system by adapting sustainable agro-forestry and pasture land management system.

The more you extract…..the more you allow riverbed to expand and finally you suffer

Rangit river, Sikkim - India
Altitude: 700m

August 1992

अति गरेपछि नदी बगरमा बदलिन्छ अनि दु:ख आफैलाई हुने रहेछ।

December 2010

Unsustainable extraction of sand and gravel along the river can pose threat to forested hill along the river bank. In the span of 18 years the course of the river has been diverted to extract stones and soil. Such resources in the nature are non-renewable and sustainability aspect should not be overlooked while extracting these resources. Local government, communities and private sector miners should work collectively to find the solution.

Forests have vanished and this cultivated land has uncertain future!

Gulabad-Kalam, Pakistan
Altitude: 2350m

August 1983

वनजङ्गल सकिएपछि अब यो ठाउँको खेतीपातीको भविष्य पनि अनिश्चित भयो।

August 2005

Until 1985, this area in the upper Gujar Gabral was only used as pasture land. Then with little development aid, the local Gujars considered as poorest farmers in Kalam constructed a motorable road. The Kalamis are traditionally a democratic community. They managed the forests locally without interference from the government. Unfortunately, after the introduction of command and control approach of forest policy, local farmers did not feel forests as theirs. As a result, forest land converted into potato fields which are however at a danger of flooding heading uncertain future and unsecured livelihoods.

How can we sustain forests in a fragile land?

Ushu Valley, Kalam, Pakistan
Altitude: 2350m

August 1984

यस्तो रुखो ठाउँमा वनजङ्गल कसरी बढाउने होला?

August 2005

This rocky and difficult slope in the high mountains of Pakistan has been continuously degraded. There is evidence that the whole slope was once forested as big forests still exist in the upper part of the slope. A joint project of Pakistan and Switzerland provided early support for the sustainable management of these forests in 1983.The policy of ban on logging proved to be counter-productive because that did not ensured the local community rights and responsibilities over forests.

What made this forest to disappear? Is it the wrong policy or something else?

Tamra, Kalam, Pakistan
Altitude: 1100m

June 1985

के कारणले यहाँको जङ्गल सखाप भएछ? नराम्रो वन-नीतिले कि अरू कारणले होला?

August 2005

In the past, the slopes of the two hills of Kalam were covered with forests of cedars, spruce, pine, oak and other species with immense ecological and economic value. In 1985, a flood washed away the area of Tamra. A temporary path was opened higher up in the middle of the remaining forest. The remaining trees also disappeared in the following year. The fundamental question remains, what made this forest to disappear? Is it the wrong policy or something else? People need forests to sustain their agriculture, but still why do they convert forests into other land use system? This needs a research to answer these questions.

It’s getting late indeed, for conservation and protection…

Buju, Kalam, Pakistan
Altitude: 2100 m

August 1985

संरक्षण गर्न वास्तवमै ढिला भइसक्यो।

August 2005

These pictures of Buju give glimpses of farming in Kalam. Like in the mountain villages of Switzerland, the Kalamis keep forests in the high lands so that they are protected from snow avalanches in the winter. Unfortunately once the area got degraded, a snow avalanche occurred in 2004 burying down small trees and two newly constructed houses. Secured tenure rights and collective action of local communities is needed for the retention of the fragile slopes in order to protect this village from the occurrence of avalanches in the future.

Physical infrastructure development can be sustained only by environmental conservation

Mankial, Swat, Pakistan
Altitude: 1550m

September 1985

वातारण संरक्षण गरे मात्र भौतिक संरचनाको सुरक्षा हुन सक्ला।

August 2005

These photo series were taken to see the influence of the new suspension bridge constructed in 1984. In the following year (i.e. 1985) most of the shrubs in the fragile slope were destroyed. Hence the fragile area looks more vulnerable in the earlier picture. Again later, after realizing the soil retention value of shrubs, their growth was enhanced. Farming is being practiced in the marginal land of the lower part of the slope.

People’s participation does work to rehabilitate fragile land

Bahrain, Swat, Pakistan
Altitude:1100m

April 1985

स्थानीय समुदायहरूलाई अधिकार दिए जङ्गल पुनः आउने रहेछ।

August 2005

These photos cover forests and landscape of upper Swat. The first photo captures a deforested slope opposite a tourist spot in Baharain Robinia and pine were planted in the steep slope in the following years. There is improvement in the forest condition due to the cooperation of the locals. Experience shows that if more rights and responsibilities are given to local communities, the forest will definitely improve further.

Where have the forests gone? Will food sustain without wood?

Bara, Kalam, Pakistan
Altitude: 2180m

August 1986

यहाँको वनजङ्गल कहाँ गयो? घाँसदाउरै भएन भने अन्न केले फलाउनु र केले पकाउनु?

August 2005

Kalam, which lies in the highlands of Pakistan is a habitat of tribal population whose main occupation used to be livestock keeping. Secured collective rights of local communities on forests however were not ensured. As a result, the forests were converted for the expansion of private agricultural land as new terraces could be seen inside the forest area. However, they were later abandoned due to lack of water for irrigation.

Hope that this island will be unaffected by the effect of climate change!

Patan, Kohistan, Pakistan
Altitude: 600m

February 1987

आशा गरौँ यो टापुलाई जलवायु परिवर्तनले नखाइदेओस्।

July 2011

Patan a small market place in Kohistan gradually started growing as an urban center after construction of the Karakorum highway linking Islamabad with Kasghar in China. The big flat space near Indus River turned into a big market place for framers living in the nearby valley of lover and upper Palas. Traders from outside visited the area for commercial purpose. As seen in the slope towards the left in the picture, the Durber Hydro Project is under construction. Even with such rapid urbanization green trees are growing as local communities are aware of the importance of forests and environment around them.

# Forest in Utror is vanishing slowly

Utror, Kalam, Pakistan
Altitude: 2200m

July 1997

उत्रोरको वनजङ्गल क्रमश: सकिँदै छ, हराउँदै छ।

August 2005

Since few years, the forests in the plain lands of the Batal Valley are fallen and converted to agro land. After the road construction, the pasture land has been converted to potato farm which is gradually entering the forest land. However, availability of irrigation is a major problem. The main reason behind such land use change is the change in the forest policy which demarcated forests as government land. People from Utror held resentment towards the government's decision and feared loss of control over their locally used forests. As a result forest is vanishing slowly.

## Reflecting on the photo journey

How did you feel after going through the photographs? Do you think that there are any social, political and institutional factors for the existing situation of forest in Nepal, Sikkim-India and Pakistan? Does tenure right to the people matter? What about governance of the forestry sector? Could you imagine how these areas would look like in 20 years' time if the same situation prevails? What do you think will forest tenure reform do to these regions? Will it make the forest- people relation better or further worsen it? Who is to blame for the degradation situation in Tamra and Utror of Kalam-the government or the locals? Only further research and follow up of these photos will definitely answer these questions.

The forest conditions in Sikkim and Nepal somehow look similar. However, the forests in Pakistan seem degraded from their earlier conditions. Forest history of Nepal has shown that forest policies do affect the land use patterns. Policy that ensures the rights of local communities bring improved forest condition. One thing that we can learn from this journey is that policy matters, more than that 'institutions and their governance matter the most !' To further strengthen this statement these photographs need some ground-truthing via qualitative research.

Last but not the least, this is to acknowledge that these photographs were the results of the hard work of a freelance photographer Fritz Berger who was motivated enough to take pictures and document changes over time. But who will carry on his legacy? We need to build on more local capacities to promote the system of photo monitoring and documenting changes. Your support for this would be inevitable.

Authors

**Main messages: Photos speak**

Bonch, Dolakha 1978

Bonch, Dolakha 1989

Bonch, Dolakha 1994

Following the introduction of the concept of community forestry in the 80s, forest cover has increased tremendously in the mid hills of Nepal. More forests and trees on private land can control gully erosion; devolution of power and responsibility to local communities is the best way to improve the quality of the forest landscape

**Main messages: Photos speak**

Jiri, Dolakha 1968

Jiri, Dolakha 1989

Jiri, Dolakha 1994

Group managed community forestry in public land and privately managed agro-forestry have been proven effective approaches for improved forest landscape; increased population do not necessarily destroy forest, rather inappropriate policy might destroy or degrade forest landscape, and road brings opportunities and incentives to grow more trees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