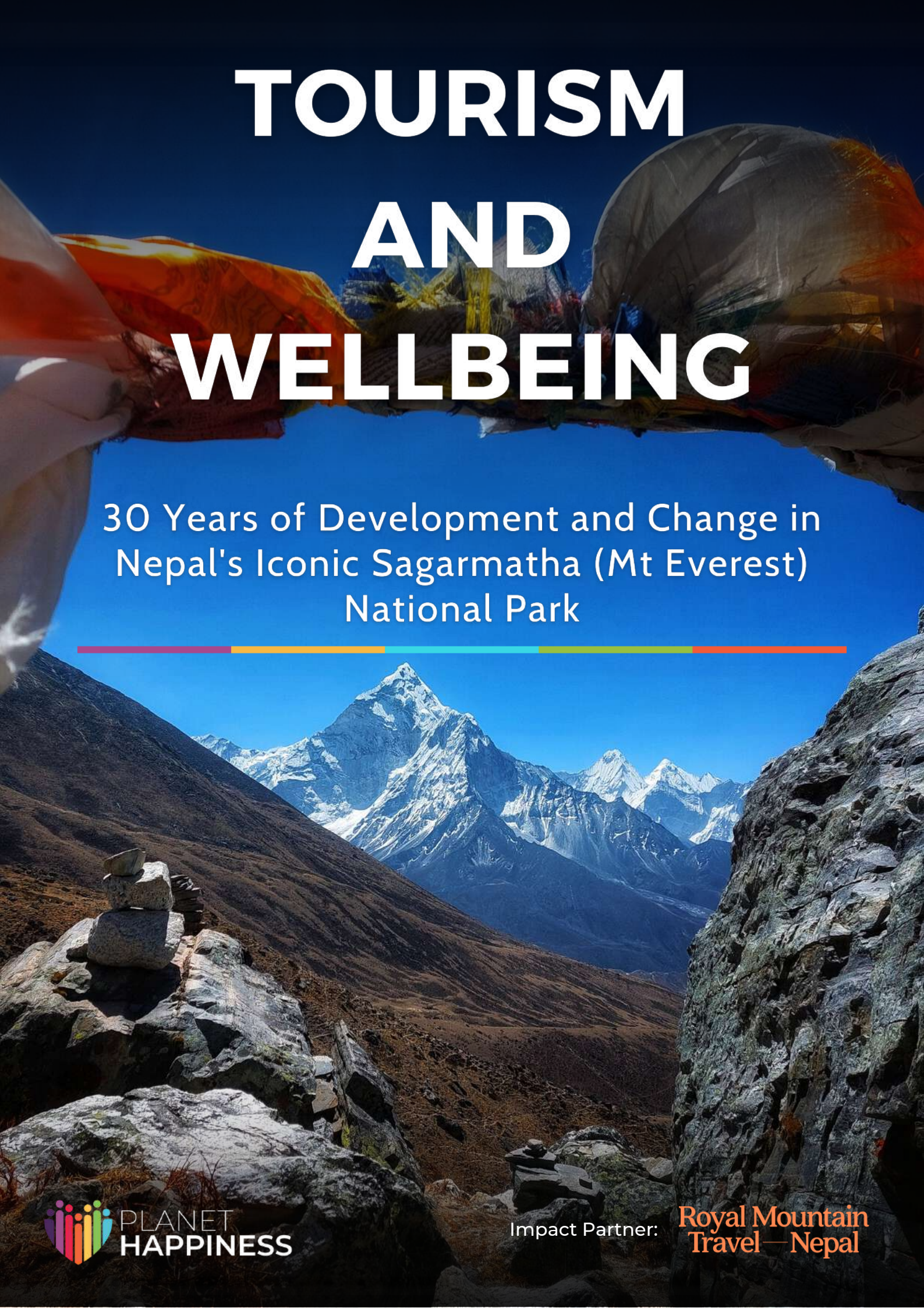
TOURISM AND WELLBEING

30 Years of Development and Change in Nepal's Iconic Sagarmatha (Mt Everest) National Park



PLANET HAPPINESS

Impact Partner: Royal Mountain Travel — Nepal

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This report has been prepared for the following audiences.

1. Solu-Khumbu residents, especially elected representatives, community activists and business leaders.
2. Government agencies and development partners supporting development projects and programmes in the Solu-Khumbu.
3. Wider stakeholders interested in the tourism and development agenda globally.

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PAUL ROGERS

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(i) sponsoring the deployment of the Happiness Index in the KPLRM,

(ii) providing technical support to prepare the report's layout and enabling its translation into Nepali.

Royal Mountain Travel — Nepal

ATM	Automated teller (cash) machine
GSTC	Global Sustainable Tourism Council
SDG	Sustainable Development Goals
SNP	Sagarmatha National Park
SNPBZ	Sagarmatha National Park and Buffer Zone
NGO	Non-governmental Organisation
OWH	Our World Heritage
SPCC	Sagarmatha Pollution Control Committee
UN	United Nations
UNESCO	United Nations Education, Science and Cultural Organisation
UN SDG	United Nations Sustainable Development Goals
UNWTO	United Nations World Tourism Organisation
WTTC	World Travel and Tourism Council

SUMMARY

Sagarmatha (Mt Everest) regularly features in global media. Together with the resident indigenous Sherpa people, it forms the main attraction of the Sagarmatha National Park (SNP), a UNESCO World Heritage site. Decades of visitor growth have caused wide-ranging change to the site's natural, cultural and built environment. It has also induced extraordinary societal change, transforming individual and community wellbeing to the point where it is likely one of the World's best examples of community wellbeing and development through tourism.

This report reviews tourism induced change to the SNP and wider Solu-Khumbu over the last 30 years. It draws upon extensive settlement and household data sets collated between 1993 and 1997. Uniquely, it contrasts these same data sets with data collected during a field mission undertaken between 22nd March and 23rd April 2022.

The field mission also embraced extensive interviews with government and business representatives as a well as wider resident and key informant interviews, and a review of recent literature related to tourism, conservation and development in and around the park. The report highlights three findings from this analysis that are undermining sustainable tourism development including the SNP's conservation objectives and host community wellbeing. Namely, a decline in animal husbandry, the growing and pervasive impact of small helicopters, and the proliferation of unregulated accommodation, especially at high altitudes within the park.

Recognising that global institutions leading the articulation of sustainable tourism policy advocate the imperative for tourism development to strengthen host community wellbeing, the report also shares findings from the deployment of a best-practice wellbeing survey. The Happiness Index was deployed, with questions added to localise the survey, in settlements north of Surke and Lukla, the main airstrip and access point to the SNP. A total of 778 surveys were completed via a convenience sampling, a sample size of approximately 10% of the local Sherpa population. Findings show the average wellbeing scores for the 778 respondents across 12 wellbeing domains, are 7.9% higher than all others who took the survey over the same period. The report presents a series of survey findings, often contrasting data between municipal government areas. They show, for example, that over 80% of respondents feel that SNP visitation should increase, and that climate change represents the greatest threat to their wellbeing.

Findings are intended to be shared with the host community to: (i) spark conversations about tourism and wellbeing; (ii) promote greater inclusivity and community engagement in tourism planning; and, (iii) help ensure tourism development demonstrably and measurably strengthens the wellbeing of the host community.

Significantly, the report recognises the outstanding and praiseworthy level of Sherpa engagement in almost all aspects of the tourism, conservation and development system. It also acknowledges Nepal's enlightened approach to protected area management, especially legislation and processes that promote community engagement through the re-cycling of park income into integrated conservation and development programmes. It highlights wellbeing outcomes and successes of the system, and their strong, exceptional relevance to protected areas worldwide, especially those that are home indigenous communities. These points are emphasised as, in the words of the World Bank,

> *"While Indigenous Peoples own, occupy, or use a quarter of the world's surface area, they safeguard 80 percent of the world's remaining biodiversity. They hold vital ancestral knowledge and expertise on how to adapt, mitigate, and reduce climate and disaster risks."*

Considering (i) each of the above points, (ii) the growing urgency and severity of the climate change disaster upon us, and (iii) threats to the sustainability of the SNP's tourism system, the report recommends that investments be made to:

- embed the tourism and wellbeing approach in the rural municipality's planning framework
- ensure lessons from this media worthy and exceptional tourism system, are widely shared.

PREFACE

TOURSIM & COVID-19

This report is produced at a time when the global travel and tourism industry is in the early stages of recovery from COVID-19; a global pandemic that brought one of the world's largest employers and industries to its knees. As an industry, tourism is a double-edge sword causing negative as well as positive local and global impacts. It is universally accepted that, coming out of the pandemic, this transformational industry MUST WORK HARDER to build forward better. In short, travel and tourism must be locally managed in ways that measurably demonstrate how it is benefiting host communities, their culture, economy and environment. Or, in a word, their *wellbeing*.

Developing tourism to strengthen host-community wellbeing is increasingly embraced and advocated in tourism frameworks such as the Global Sustainable Tourism Council's (GSTC) sustainability criteria. It is also positioned at the core of the UN World Tourism Organisation (UNWTO) & G20 Tourism Working Group's. "AlUla Framework for Inclusive Community Development through Tourism"

At its core, the AlUla Framework states *"The impact of COVID-19 on tourism.....is a major opportunity to restart and work together – governments, private sector and communities towards a more sustainable and inclusive tourism sector centered around people's and communities' wellbeing."*

BUT WHAT DOES THIS TERM WELLBEING ACTUALLY MEAN?

Planet Happiness, a tourism and big data project of the Happiness Alliance, offers the travel and tourism industry the first framework, acknowledged by the World Economic Forum, the World Travel and Tourism Council (WTTC), UNWTO and GSTC, to value, define and MEASURE travel and tourism's contribution to individual and host-community wellbeing.

Measurements are critically important as without them it is not possible to make informed, responsible decisions. Measurements provide a basis for evidence-based policy, action and intervention.

The Planet Happiness framework is designed to:

Interest in the wellbeing agenda is growing on multiple levels, from the individual to the state. Progress is underpinned by the 2011 UN Resolution 65/309 "Happiness: towards a holistic approach to development" and ten years' of the UN's annual Global Happiness Reports. With this progress, the wellbeing agenda is increasingly being picked up by enlightened governments (locally, regionally and nationally) around the world.

Planet Happiness together with its supporters and partners, believe the travel and tourism industry can become a catalyst for global change: it has the power, influence and reach to incentivise businesses and governments to engage with the wellbeing agenda and facilitate investment in wellbeing policy and planning frameworks.

As this report makes clear, due to the unique characteristics of the Khumbu, its people and its tourism system, this site offers an opportunity for wellbeing measurement, action and policy-choices to influence and shape tourism and development globally.

For the purposes of this report, the three terms happiness, wellbeing and quality of life are used interchangeably with each term having the same meaning.

1 INTRODUCTION

1.1 SITE OF GLOBAL IMPORTANCE

As it's the world's highest mountain, **Sagarmatha** (Chomolungma, Mt Everest), regularly features in global media. News stories are mostly associated with

(i) the exploits of some of the hundreds of climbers on the mountain each year,

(ii) environmental issues including waste management and the melting of glaciers, often with speculation about the rate and scale of climate change locally and globally.[1]

Beyond these stories, the Sagarmatha National Park (SNP or Khumbu) is a site of global importance owing to its inclusion on the UNESCO World Heritage list. This prestigious list embraces sites with natural and cultural properties that have outstanding universal value. Besides recognising the Khumbu's natural and spiritual values, which embrace the exceptional beauty of the site's mountains, glaciers and valleys, UNESCO's nomination criteria for the SNP states,

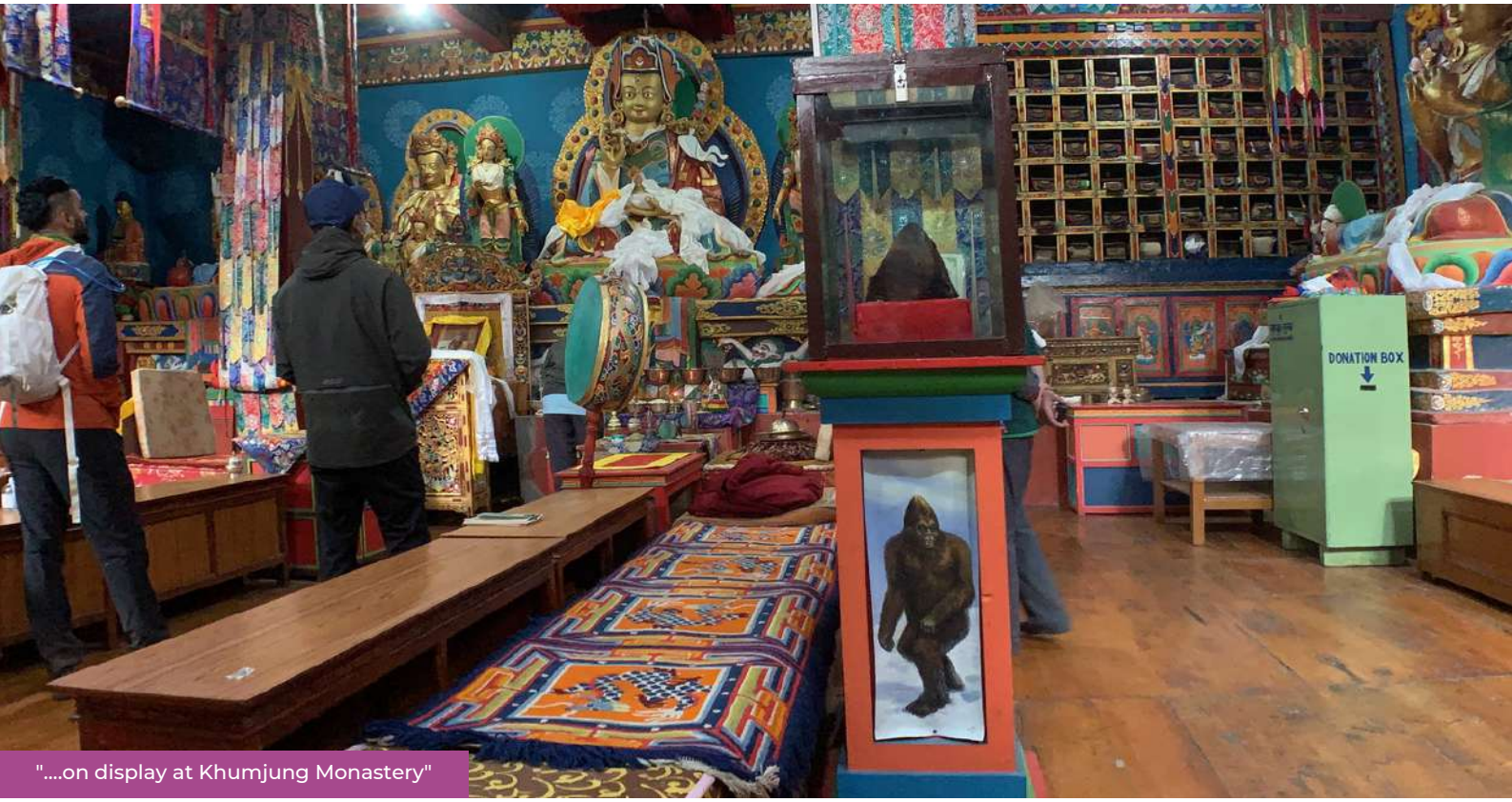
"The intricate linkages of the Sherpa culture with the ecosystem are a major highlight of the park and they form the basis for the sustainable protection and management of the park for the benefit of the local communities."

Sagarmatha, Lhotse and Nuptse from Gokyo peak.

Owing to each of the above, the Khumbu attracts growing numbers of domestic and international visitors. Included among these, are many repeat visitors, mountaineers and researchers examining wide-ranging phenomena of the natural and human environment.[2] With improved access, especially the planned road to Chaurikhara just a few hours walk from the park, visitor pressure including the building of new accommodation can be expected to continue for decades to come. Opportunities for research will also grow.

Thus, less well reported but arguably of greater international importance, are stories and lessons about the people, communities and wider stakeholders whose lifestyles and actions shape the development of this unique global landmark. For it is their individual choices and collective behaviour that enable each of the above. It is also their actions that provide a narrative for international media (and researchers) to report the success, or otherwise, of efforts to manage this site responsibly and sustainably for:

- the benefit of the local community, and
- the reputation and branding of Nepal's tourism industry.



"....on display at Khumjung Monastery"

[1] See: Potocki, M., Mayewski, P.A., Matthews, T. et al. 2022. "Mt. Everest's highest glacier is a sentinel for accelerating ice loss."https://www.nature.com/articles/s41612-022-00230-0 & https://education.nationalgeographic.org/resource/mount-everest

[2] See references above, also: Boustead, R. & Bhatta, S. 2021. "Assessment of the Social Impacts of Community Based Tourism: A Baseline Survey in the Sagarmatha (Everest) National Park Region, Nepal." https://doi.org/10.1515/tw-2021-0010; and reporting in Rogers & Atchison, 1998. "Towards Sustainable Tourism in the Everest Region of Nepal. IUCN Nepal.

1.2 SIGNIFICANCE OF TOURISM, CONSERVATION AND DEVELOPMENT

This report is written at a time of global change and uncertainty. For Khumbu residents, climate change is the most obvious expression of this uncertainty. Caused or accelerated by an increase in carbon emissions into the atmosphere, a global priority to mitigate climate change is the conservation of natural capital in the form of forests, national parks and protected areas including many natural World Heritage sites and other critical ecosystems. Many of these planetary ecosystems are home to indigenous communities.

Himalayan Thar

Significantly, travel and tourism often play a critical role in generating incomes that enable conservation through development for local communities living in and around such ecosystems. Yet few communities, especially indigenous communities, have achieved the remarkable outcomes of the Khumbu's Sherpas. This is in no small part due to the enlightened policies of Nepal's National Park Act and its Buffer-zone Regulations, which promote the recycling and investment of park income (mostly from tourism) into community projects that support conservation gains. Many countries and communities around the world, especially those advocating indigenous needs and rights, could learn a great deal from this approach to tourism and protected area management, which will also help mitigate and address the threat of climate change.

1.3 SIGINIFICANCE OF INDIGENOUS TOURISM

Tourism to the Khumbu is a model of indigenous tourism, defined as

> *"Tourism activity in which Indigenous people are directly involved either through control and/or by having their culture serve as the essence of the attraction."[3]*

Numbering some 476 million people worldwide, indigenous peoples make up approximately 6% of the global population.[4] Most rely heavily on natural resources and live in remote areas often designated as national parks or protected areas.[5] Significantly, indigenous peoples typically

(i) lack access to essential services, healthcare facilities as well as socio-economic and governance structures catering to their community needs and,

(ii) rely on tourism as a main source of income.[6]

Thus, considering the global urgency to mitigate climate change by conserving natural capital to sustainably manage protected areas, is there potential to replicate and apply the successes and strengths of the Khumbu's tourism model to other sites and examples of indigenous tourism around the world? To what extent might studying the culture and wellbeing of Sherpa communities

(i) help strengthen the success of tourism to the SNP, and

(ii) facilitate the replication of these lessons to other sites around the world? These are important questions as, in the words of the World Bank,

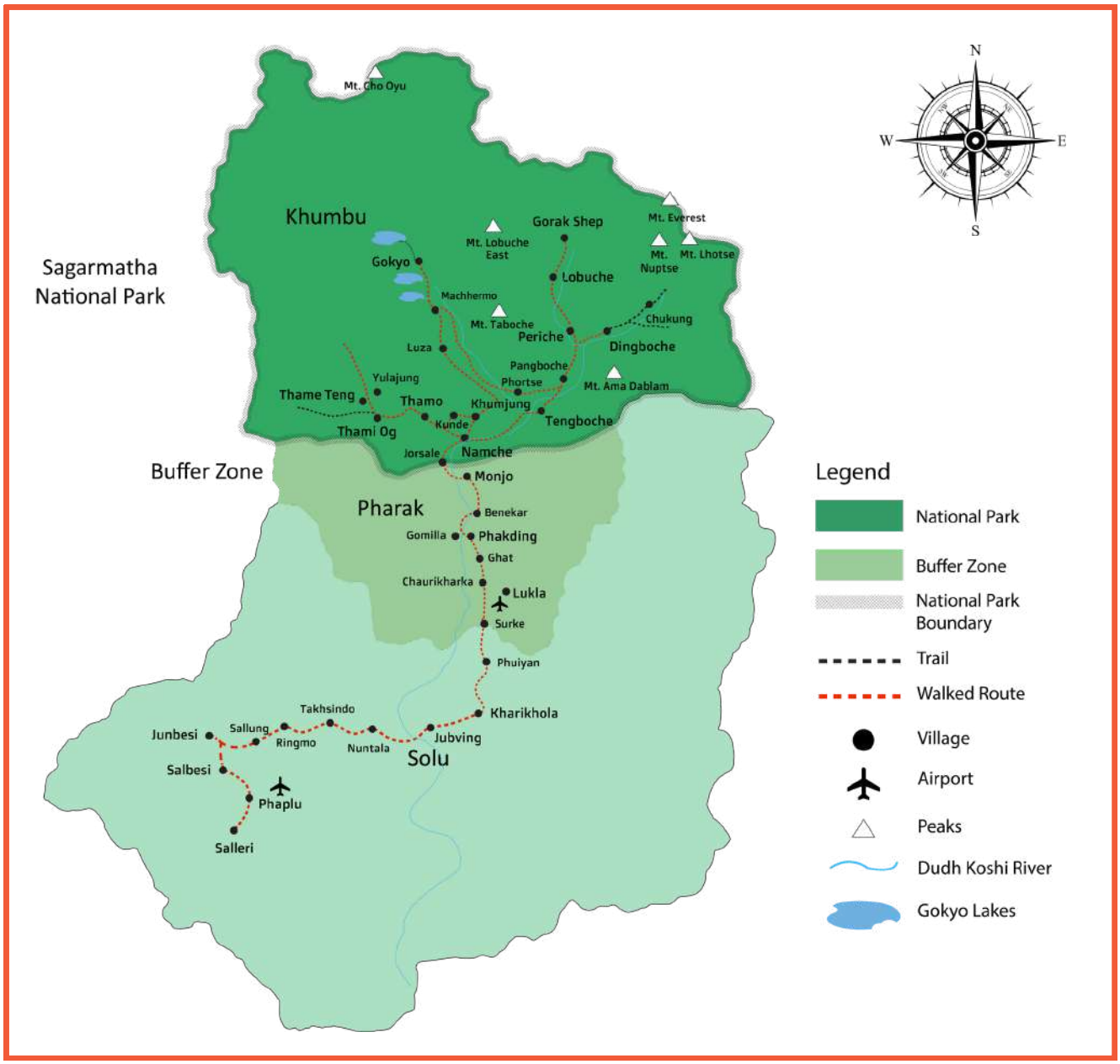
> *"While Indigenous Peoples own, occupy, or use a quarter of the world's surface area, they safeguard 80 percent of the world's remaining biodiversity. They hold vital ancestral knowledge and expertise on how to adapt, mitigate, and reduce climate and disaster risks."*

[3] (2022) https://www2.unbc.ca/outdoor-recreation-tourism-management/indigenous-tourism-about
[4] (2022) https://www.worldbank.org/en/topic/indigenouspeoples#1
[5] Beltrán, J. (Ed.) (2000). Indigenous and Traditional Peoples and Protected Areas: Principles, Guidelines and Case Studies. IUCN, Gland, Switzerland and Cambridge, UK and WWF International, Gland, Switzerland.
[6] (2021) UNWTO Inclusive Recovery Guide – Sociocultural Impacts of Covid-19, Issue 4: Indigenous Communities

1.4 OBJECTIVES

Mindful of the above, this report aims to share the conclusions and recommendations of a (33-day) field trip to the Solu-Khumbu. As depicted in Map 1, the trip started (on 22/03/2022) in Sallerie, ventured up into the SNP's four main valleys and concluded with a flight out of Lukla (on 23/04/2022). The trip had two objectives as set out in Box 1.

MAP 1: THE SOLU-KHUMBU DISTRICT AND ROUTE OF THE 2022 FIELD TRIP



Box 1: Research Objectives of the March/April 2022 Field Research

1 OBJECTIVE

To visit each of the 33 settlements and 140 households that were part of the main author's PhD thesis between 1993-1997.[7] The thesis, and subsequent work,[8] led to the UK Government investing some US$5million in the "Tourism for Rural Poverty Alleviation Programme", implemented by the government of Nepal, UNDP and SNV between 2002-2007.

Under this objective, the trip sought to compare change over almost 30-years in

- access to basic needs such as health, education, electricity, water, forest, resources, income and employment opportunities
- levels of households engagement in the tourism economy
- attitudes toward tourism, conservation and development

2 OBJECTIVE

To work with local stakeholders to build local interest and capacity to annually deploy the on-line Happiness Index survey (in Nepali & English) among residents in settlements north of Surke and Lukla. Used by Planet Happiness, a tourism and big data project of the Happiness Alliance, the Happiness Index measures individual and community wellbeing across 12 domains. It includes questions measuring local satisfaction with the way tourism is developing, that are centred around the way tourism is included in the UN Sustainable Development Goals (UN SDGs).[9] To localise the survey, five questions were added centred around: education and health service provision; SNP management; threats to community wellbeing; and, climate change. The domains, localised questions and survey findings are illustrated and discussed in Chapter 5.

[7] Completed at the University of Wales, Aberystwyth, UK.
[8] With local stakeholders and International Centre for Protected Landscapes, based at the University of Wales, Aberystwyth.
[9] See Annex I for a more detailed explanation of Planet Happiness and the Happiness Index. For further information about the UN SDGs, see https://sdgs.un.org/goals

1.5 OUR WORLD HERITAGE AWARD

The Happiness Index was also deployed as part of a project proposal that in 2021 was awarded joint 2nd place in a global competition organised by Our World Heritage (OWH).[10] OWH is a global initiative advocating greater civil society involvement in the implementation of the World Heritage Convention. Centred upon the Transformational Impacts of Information Technology, the competition awarded projects judged to be capable of solving three questions, namely:

1. How can collective knowledge and big data become tools for heritage conservation and foster its integration into comprehensive planning systems?

2. How can IT support transparency in, and access to, decision-making and management process of the [World Heritage] Convention?

3. How can digital technologies, including social media promote heritage education, awareness, and support to the cultural and creative industries?

Cappuccinos & expresso bars are common-place between Lukla, Pheriche and Dingboche.

[10]The project proposal was submitted by the Himalayan Trust Nepal in partnership with Planet Happiness. Award winners are showcased in an OWH "Transformational Impacts of Information Technology Catalogue of Tools" presented at this year's 45th World Heritage Committee meeting.

1.6 LAYOUT OF THE REPORT

Having considered key themes shaping the report's content and purpose in this introduction, Chapter 2 examines additional contextual issues around the tourism industry and its significance to the world, Nepal and the SNP. Chapter 3 describes key changes associated with the report's first objective to revisit and compare settlements and households over a 30year timeline. Chapter 4 focuses upon discussion of three key issues identified during the field mission to be critical to the Khumbu's future and its sustainable development. Chapter 5 presents key data findings from deploying the Happiness Index. To conclude, Chapter 6 presents recommendations to strengthen the Khumbu's tourism system and thus promote sustainable tourism in Nepal and beyond.

Discussing change and trying to locate households, Nuntalla.

2 CONTEXT

2.1 GLOBAL TOURISM INDUSTRY – ISSUES TO ADDRESS

Travel and tourism are inextricably linked to national and global development affecting change almost everywhere. In 2019, prior to COVID-19, there were 1.5billion visitor movements across international borders generating some US$1.47trillion in visitor spending. The significance of this spending, both nationally and locally, with its contribution to employment, poverty alleviation, wealth creation, protected area finance, and development cannot be understated.

Following the devastating impacts of COVID-19 and the industry's loss of some 62 million jobs worldwide, there is mounting pressure to recover; to reposition and prioritise the industry in the minds of ALL stakeholders. This repositioning requires a move to evolve the sector and engage the broadest possible alliance, committed to strengthening industry and destination sustainability. From a destination perspective, three issues must be addressed: inclusivity in tourism governance; overcrowding; and, the sector's carbon footprint.

A systemic structural weakness with tourism planning and destination development has been its lack of inclusivity and tendency, over time, to prioritise business and government interests over the needs and concerns of local people and host communities. In many sites, the economic objectives associated with industry growth have undermined the quality of life of host communities. In many locations prior to COVID-19, this structural imbalance has led to destination overcrowding (especially in World Heritage sites), which coupled with the sector's carbon footprint are two of the sector's biggest sustainability threats. To address these issues, tourism industry bodies including the UN World Tourism Organisation (UNWTO), the World Travel and Tourism Council (WTTC) and the Global Sustainable Tourism Council (GSTC) advocate greater host-community inclusivity and engagement in tourism planning.

Covid-19 allowed time to re-paint mani-stones

This report and the Planet Happiness approach make the point that, the surest way to engage local people in tourism planning and make it more inclusive, is to focus its development on strengthening the happiness, wellbeing and quality of life of the host community.[11]

[11] Also see the Preface of this report.

Lukla airport - smoother and safer than 30 years ago.

2.2 NEPAL TOURISM

While suffering greatly from episodes of political turmoil and the devastating 2015 earthquake, Nepal tourism has enjoyed remarkable growth over the last 30years. Over this period, between 1990 and 2019: international visitor arrivals grew from 254,855 to 1,197,191, while foreign exchange earnings increased from US$63.7 million to US$724.3 million.[12] In terms of its significance to the national economy. prior to COVID-19 Nepal's tourism industry supported roughly 1.16 million jobs (7.8% of total employment)[13] and was positioned with remittances from overseas workers and foreign aid as one of Nepal's top three sources of foreign currency.[14] In short, Nepal depends upon tourism for employment, economic growth, poverty alleviation and its societal wellbeing. To maximise opportunities the sector provides, Nepal MUST FOCUS HARD on building forward better and illustrating demonstrable linkages between tourism development and host community wellbeing.

[12] All data from Nepal's Ministry of Culture, Tourism and Civil Aviation.
[13] World Travel and Tourism Council https://wttc.org/Research/Economic-Impact
[14] https://www.bloomberg.com/news/articles/2022-04-15/nepal-running-low-on-foreign-exchange-discourages-imports

Stunning views, Gokyo.

As with all nation states, to be competitive and maximise the industry's potential for green investment and responsible growth, Nepal must position itself as industry savvy. This means responding to industry calls to strengthen tourism governance, address issues of overcrowding and reduce the sector's carbon footprint. While this might sound like a mission impossible, it isn't.

NEPAL TOURISM CAN ACHIEVE A GREAT DEAL MORE IF THE SECTOR FOCUSES UPON:

THE REMARKABLE STRENGTHS OF IT'S FLAGSHIP DESTINATIONS

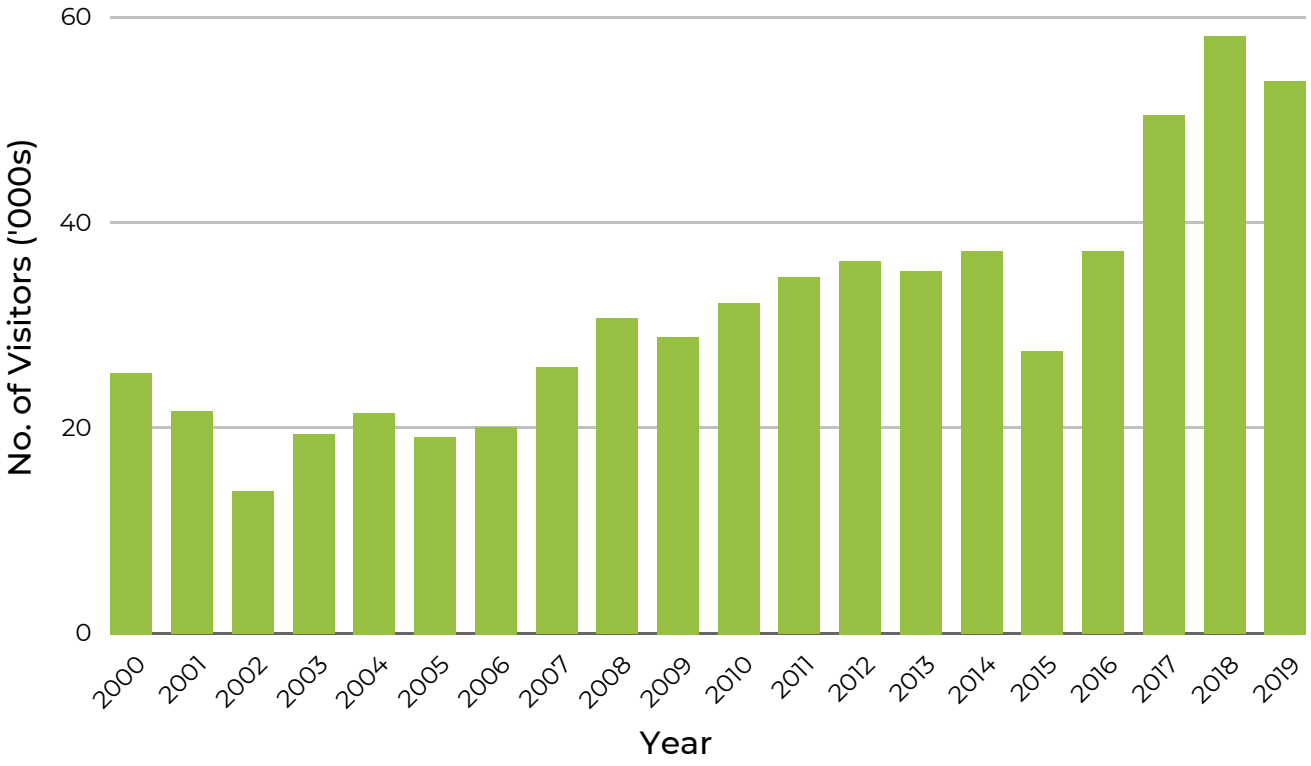
WHAT THE COUNTRY IS ALREADY ACHIEVING

ENLISTING GREATER DEVELOPMENT PARTNER SUPPORT.

2.3 TOURISM TO THE SAGARMATHA NATIONAL PARK

Owing to travel and tourism being a double-edge sword, no tourism system will ever be perfect. It is only possible to strive towards ever-improving wellbeing and sustainability. Industry impacts, both positive and negative, are complex, diverse and, due to ongoing innovation, dynamic.[15] While some impacts have short-term consequences, others are enduring. In terms of strategic planning, impacts that are negative and enduring must be prioritised and addressed, not ignored.

FIGURE 1: INTERNATIONAL VISITORS TO THE SAGARMATHA NATIONAL PARK, 2000-2019



Due to the sheer strength and power of the Khumbu's natural and cultural attractions, and the fragility of its ecosystems, the SNP has experienced decades of sustained tourism pressure. As illustrated in Figure 1, besides declines due to

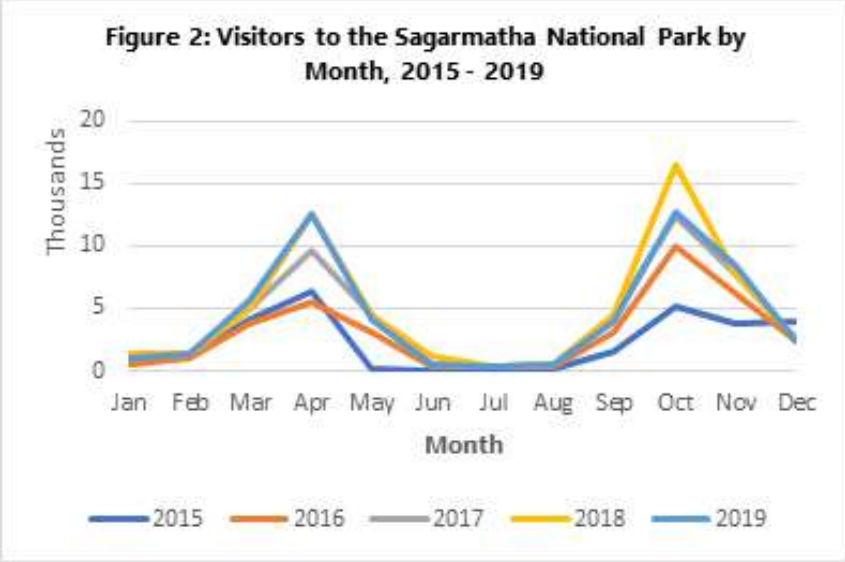
(i) Maoist insurgency and political turmoil in the early 2000s

(ii) the 2015 earthquake

(iii) the onset of COVID-19, the annual number of SNP international visitors has grown strongly over the last 20yrs.

[15] This generally implies governance mechanisms and management systems promoting sustainability often lag behind and play catch-up with private sector innovation.

Numbers have almost doubled from 25,291 visitors in 2000, to a peak of 58,018 in 2018.[16] These figures do not include domestic visitors, which have increased significantly in the last 2-3yrs. Attention is also drawn to visitors by month which, as depicted in Figure 2, illustrates striking seasonality: meaning employment and room occupancy are very low for six months of every year.



Besides profiling growth trends in trekking tourism, Table 1 profiles trends in trekking peak and mountaineering tourism to the Solu-Khumbu's key peaks (all but one, Mera, are located inside the SNP). While not including data for all SNP peaks, the Table illustrates that revenue from mountain climbing has grown from US$660,950 in the autumn and spring seasons of 1993-94, to more than US$5million in 2019. Importantly, the table illustrates a growth to over 6,000 climbers per year. Most of these international climbers employ local climbing guides, of whom the majority are Solu-Khumbu Sherpas. In summary, the demand for tourism-related employment linked to trekking and mountaineering, especially through accommodation provision (including the construction of lodges), guiding, food and wider service (supply-chain) provision is considerable, and typically growing enough year on year to encourage high business investment. Although no figures are available, it is probable that private sector investment into the SNP's tourism system is growing year on year.

From a destination wellbeing and development perspective, tourism has brought many changes to the Solu-Khumbu, especially the SNP and its Buffer-zone. (SNPBZ) Almost thirty years ago while National Geographic was highlighting issues of deforestation and the prospect of visitors following the toilet paper trail to the Everest basecamp, others were highlighting that the region's tourism model was one of the world's foremost examples of local economic development through tourism.[17]

[16] Figure 1 and 2 data sourced from the Department of Wildlife and National Parks https://snp.gov.np/document/annual-report-2076-77

[17] Stevens, S & Sherpa, M.N. Sherpa. 1992. "Tourism and Local Development in Sagarmatha (Mt Everest) National Park Nepal" Paper Presented at IUCN IVth World Congress on National Parks and Protected Areas, Caracas, Venezuala. In Rogers, P & Aitchison, J. 1998. "Towards Sustainable Tourism in the Everest Region of Nepal". IUCN, Nepal

TABLE 1: CLIMBERS AND REVENUE FOR KEY TREKKING AND MOUNTAINEERING PEAKS IN THE SOLU-KHUMBU, 1993-4 AND 2015 - 2019

Peaks	1993-94		2015		2016		2017		2018		2019	
	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue
Key Trekking Peaks												
Island Peak	896	N/A	406	50,035	2,176	336,720	2,817	472,897	2,921	484,984	2,639	455,977
Mera Peak	419	N/A	210	26,195	1,199	185,925	1,502	240,159	1,792	295,146	1,728	285,055
Kwangde					7	875	5	890	7	1,250	2	250
Lobuje East	105	N/A	109	16,649	721	113,640	706	128,992	899	157,130	966	186,180
Lobuche West	N/A	0	32	4,000	39	4,920	90	15,320	80	16,390	94	16,071
TOTAL	1,020	76,950 [1]	757	96,879	4,142	64,080	5,120	858,258	5,699	954,900	5,429	943,533
Key Mountaineering Peaks												
	Expo's	Revenue	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue	Climbers	Revenue
Ama Dablam	15	N/A	402	160,800	330	132,000	328	127,250	402	160,600	402	159,200
Cholatse	3	N/A	2	250	47	6,820	38	5,000	47	5,768	42	5,768
Kangtega	0	N/A	3	600							2	400
Lhotse	5	N/A	124	176,535	68	69,097	120	162,178	111	194,700	13	11,700
Nuptse	1	N/A	38	17,650	49	25,800	37	20,150	42	25,200	45	24,400
Pumori	12	N/A	13	3,250	3	750	9	3,750	18	4,500	11	5,500
Sagarmatha	9	N/A	359	2,481,000	291	1,672,500	377	2,923,500	346	3,476,000	397	4,058,000
TOTAL	50	584,000 [2]	941	2,840,085	788	1,906,967	909	3,241,828	966	3,866,768	912	4,264,968
TOTAL ALL		660,950	1,698	2,936,964	4,930	1,971,047	6,029	4,100,086	6,665	4,821,668	6,341	5,208,501

1993-4 data from Liz Hawley, quoted in Rogers, P & Atchison, J (1998) "Towards Sustainable Tourism in the Everest Region of Nepal" IUCN Nepal.
All other data from Nepal Tourism Statistics 2015, 2016, 2017, 2018, 2019 produced by the Ministry of Culture, Tourism and Civil Aviation.
[1] Figure quoted is for all trekking peaks in the Solu-Khumbu, not just the five listed in the table.
[2] Figure quoted is for all mountaineering peaks in the Khumbu, not just the seven listed in the table.

Masses of Rhododendrons colour the hillside beneath Tengboche.

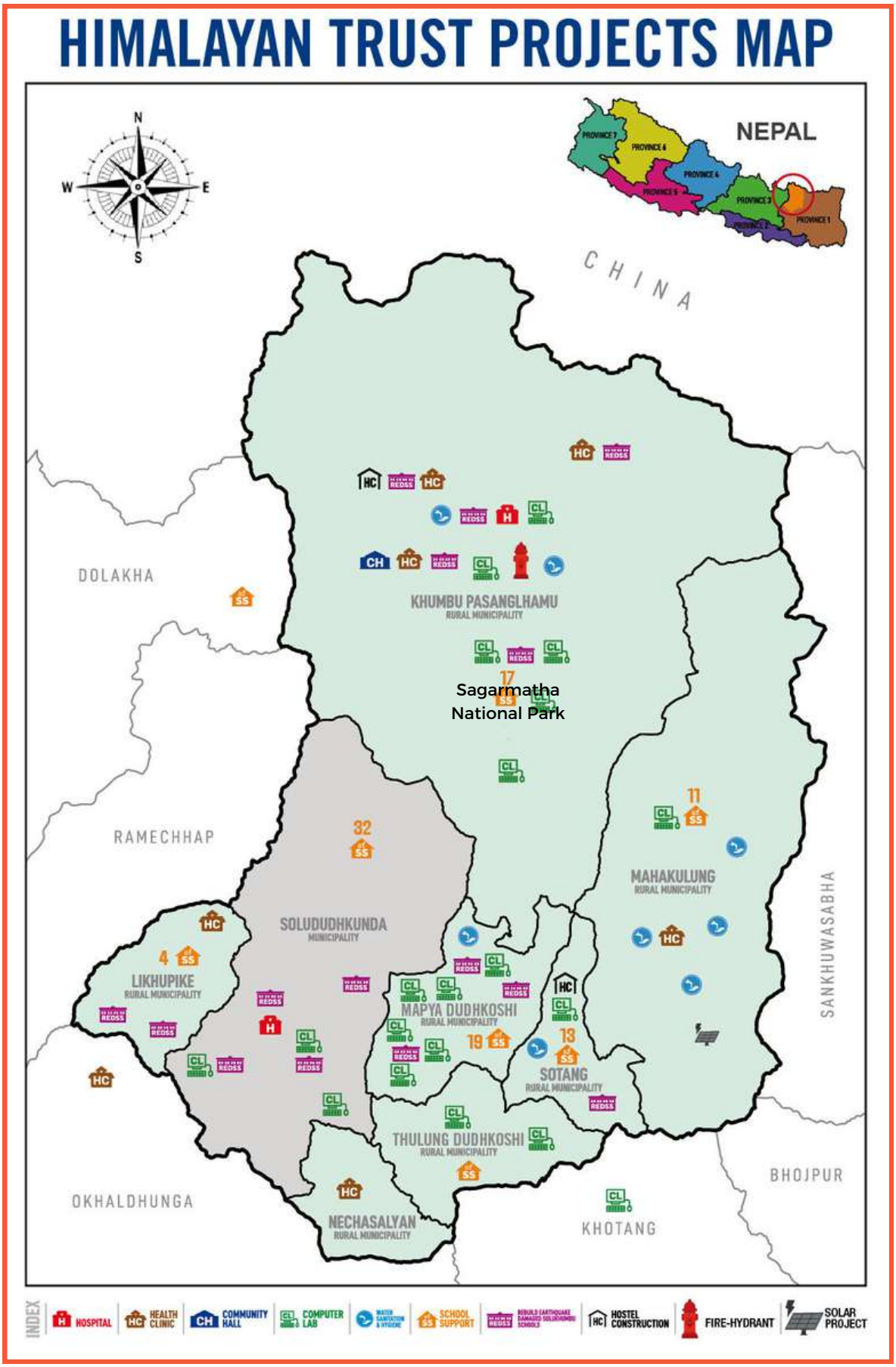
In the years since, the Sherpa community have achieved extraordinary outcomes and are heavily engaged in all aspects of local change and development.[18] Not just tourism development through ownership of hotels, lodges, tour companies, restaurants, handicrafts and local airlines, but also in education and health provision as well as community forestry, waste management, water supply and hydroelectricity. In an age where overtourism has become a buzzword with worrisome connotations, the foundations of the Sherpas' considerable economic success with tourism and wider development were laid more than forty-years ago. It started with substantial visitor-related philanthropic investment in local schools (through scholarships and imbursements to encourage, Sherpas to become teachers for example). This investment programme was initiated by Sir Edmund Hillary's Himalayan Trust, which is managed in-country by Solu-Khumbu Sherpas and will enjoy its 70th anniversary in May 2023 (Table 2 summarises major achievements of the Trust, while Map 2 illustrates the locations of its projects).

TABLE 2 : MAJOR ACHIEVEMENT OF THE HIMALAYAN TRUST

Year	Achievements
1960	Sir Edmund Hillary established the Himalayan Trust
1961	Built Khumjung School
1963	Built Junbesi, Thame and Pangboche Schools
1964	Built Lukla Airstrip
1966	Built Kunde Hospital
1973	Built Salleri High School
1975	Built Phaplu Hospital
1976	Supported to establish Sagarmatha National Park
1980	Established Sagarmatha Forest Nursery Project
1986	Built Kharikhola Middle School
1993	Built Solu-Khumbu Multiple Campus
2015	Launched Nepal Earthquake Appeal Programme
2017	Re-built 70 classrooms in 15 schools
2020	Built Thame School Hostel

[18] https://thriveglobal.com/stories/in-to-planet-happiness/

MAP 2: HIMALAYAN TRUST PROJECTS



Over past decades the education that Sherpa's have received has enabled them to become not just teachers and business entrepreneurs, but also national park managers, community-forestry guardians, hydro-electric engineers, medical doctors, dentists and more besides (the majority working either within or, from elsewhere, for their community).

Sherpa Brewery beer barrels awaiting mule transportation.

As evidenced in the above data, their tourism system continues to thrive and is structured in ways that encourage investment (including philanthropic giving from tourists, tour companies and local entrepreneurs) in local education, health and resource management programmes.

This system is further supported and enabled by Nepal's enlightened protected area legislation that re-cycles 30-50% of national park income into integrated conservation and development programmes that support ecosystems conservation, including micro-hydro projects and income generation schemes that align with conservation objectives. Box 2 summarises the basic approach of this revenue generation and spending framework.

Hydro-electric station below Lukla

Box 2: Overview of Nepal's Buffer-Zone Revenue Generation and Spending System

Section 25Ka of Nepal's National Park and Wildlife Conservation Act 1972 states that 30-50% of the income earned by a national park can be spent on community development activities within the national park and its buffer zone. Income is generated, for example, from visitor entry fees, permits granted to harvest forest resources and fines issued for breaking park laws and regulations.

As part of this process, in consultation with local authorities and communities, national park wardens form User Groups in settlement areas and a User Committee in each KPLRM ward. The SNP has 28 User Groups and three User Committees.

Above the User Committees, one Buffer-Zone Management Committee is formed composed of the chairpersons of each Committee. A local representative serves as the chair of the Committee, while the park warden works as Member Secretary. Generally, local representatives are elected to serve five-year terms on the User Groups and Committees.

The User Groups and Committees work with the park administration to propose and approve an annual work-plan to spend the revenue earned by the park over the previous year. It is prepared with separate programmes and budget allocations as follows. Work plans must also align with the wider five-year SNP management plan, prepared by the warden in consultation with local communities and wider stakeholders, and approved by the Department of National Parks and Wildlife Conservation.

CONSERVATION PROGRAM

COMMUNITY DEVELOPMENT PROGRAM

INCOME GENERATING AND SKILL DEVELOPMENT PROGRAM

CONSERVATION EDUCATION PROGRAM

ADMINISTRATIVE EXPENSES

Importantly, the overall tourism and conservation system, in all its complexity, requires capable management organisations and institutions. Thus, the region's Sherpas and its community-groups along with the Nepal government, and the country more broadly, should be immensely proud of what this system has achieved, and continues to deliver. A part of this progressive development has been the creation and empowerment of the SNP's forestry user- and buffer-zone user-groups and committees. More recent and equally encouraging change includes the devolution of Nepal's government and the creation of democratic, locally elected government representatives and institutions. The creation of the Khumbu Pasang Lhamu Rural Municipality (KPLRM) is an important and progressive development, bringing greater resources and decision-making responsibilities to local institutions. Moving forward, the region and ALL its stakeholders must concentrate on building on these positives and addressing weaknesses within the tourism system.[19] Especially enduring weaknesses.

Hydro-pipes below Lukla

[19]There are many ways this can be achieved, including through guidance from industry policy, such as UNWTO and the G20 Tourism Working Group's AlUla Framework for Inclusive Community Development through Tourism, and the GSTC's industry and destination sustainability criteria.

Many commentators cite two enduring negative impacts that significantly undermine the sustainability of the region's tourism system, namely waste management and the uncontrolled growth of accommodation.

While a great deal has been achieved around the former, as illustrated in images in this report and described in Box 3, the latter embraces multi-storey accommodation that:

(i) bears no resemblance to traditional Sherpa culture and its vernacular building styles; and

(ii) is irreparably altering the cultural landscape of this World Heritage site. These and other issues are explored in more detail in the chapters that follow.

Hotel innovation, Gokyo

Lodge innovation, Deboche.

Cleaner trails, thanks to SPCC

Box 3: Key Points on Climbing Revenues and Waste Management on Climbing Peaks

Trekking peak revenue is collected by the Nepal Mountaineering Association (NMA). Mountaineering peak revenue is collected by the Ministry of Culture, Tourism and Civil Aviation (MoCTCA) and received by Nepal's Ministry of Finance.

The Sagarmatha Pollution Control Committee (SPCC) is contracted by MoCTCA to manage the Khumbu icefall route that all climbers use when climbing Sagarmatha, Lhotse and Nupste. All expeditions pay fees to SPCC for this service and are obliged to work with SPCC to manage their waste.

SPCC partners with, and receives funding from, NMA to control illegal climbing on NMA registered peaks, manage garbage and its clearance, and fix and manage a ladder over the crevasse near the summit of Island peak. For further information about the work of SPCC see the SPPC website.

SPCC's waste bins between villages.

3 SITUATION ANALYSIS

This Chapter summarises changes in the tourism and development landscape between Junbesi and the four main valleys of the SNP occurring since the early 1990s. The review is informed by regular visits between 1993 and 2002 with additional visits in 2006, 2017 and 2022.[20] It draws upon data collected from 33 settlements and 140 households between 1993 and 1997. While the 2022 mission sought to re-visit each of these settlements and households, time constraints prevented visits to Yulajung and Chukkung. The review starts with a focus upon households, comparing change over the study period before moving on to a sub-regional overview.

Table 3 depicts the location and number of households in the original study, with those visited in 2022. It categorises households by sub-regions used in the original study and as illustrated in Map 3, namely Solu, Pharak and Khumbu, and shows the following.

- **76 of the 140 original survey households were revisited (54%),**
- **The occupants of 41 households relocated or moved away (almost 30%).** Interviews reveal this was either locally, or more typically to Kathmandu and often overseas to the United States (US).
- **21 of the original households surveyed could not be located (15%).**

MAP 3 : SOLU, KHUMBU AND PHARAK

[20] The 2006 and 2017 visits were between Lukla and Tengboche only.

TABLE 3: SUMMARY OF HOUSEHOLD SURVEY DATA

Settlement	No. of HH interviewed 1999-97	No. of HH interviewed 2022	No. of 1993-HH moved away	No. of 1993-97 HH not located	No. of 2022 HH with persons overseas			No. of 2022 HH engagement with Toursim			HH better off in 2022	HH worse off in 2022	No change
					Middle east	US & Europe	Asia / Australia / NZ	Increased	Decreased	No. Change			
Junbesi	5	4	1			1	2	2	1	1	2	1	1
Sallung/ Ringmo	4	1	3			1			2			1	
Nuntalla	5	2	3			2		1	1		1	1	
Jubving	7	3	1	3	2				3			2	1
Kharikhola	15	8	6	1	2	2	1	2	6		2	5	1
Bupsa/ Phuiyan	2	0	1	1									
SOLU TOTAL	**38**	**18**	**15**	**5**	**4**	**6**	**3**	**5**	**13**	**1**	**5**	**10**	**3**
Surke	2		2										
Lukla	8	3	4	1		2		1	5		2	1	
Chaurikhola	6	6				5	1	2	1	3	2	1	3
Choblung	4	2	1	1		1		1	2		1	1	
Phakding	5	1	3	1		3		1			1		
Sano & Thulo Gomilla	7	3	3	1				2	1		2		1
Monjo	1	1								1			1
PHARAK TOTAL	**33**	**16**	**13**	**4**		**11**	**1**	**7**	**9**	**4**	**8**	**3**	**5**
Namche	10	5	2	3		4	2	5	1		5		
Thamo/ Phurte	3	1	2			1			2		1		
Thame/ Thame Teng	5	3	1	1			1	1		2	1		2
Kunde	6	4	1	1				4			3		1
Khumjung	6	4	2	1		3	1	2	1	2	3		1
Dole/ Luza/ Thare	3	1	1	1		1		2			2		
Gokyo	3	3						3			2		1
Phortse	6	5		1		3		4		1	4		1
Tengboche/ Debouche	3	2		1		1		1	1		1	1	
Pangboche	8	6	2			3		5		1	5		1
Dingboche/ Chukkung	6	3	2	1		2		5			5		
Pheriche/ Dhugla	4	3				1	1	4			3		
Lobuche/ Gorak Shep	6	2		2				2			4		
KHUMBU TOTAL	**69**	**42**	**13**	**12**		**19**	**5**	**40**	**5**	**6**	**39**	**1**	**7**
SURVEY TOTALS	**140**	**76**	**41**	**21**	**4**	**36**	**9**	**52**	**27**	**11**	**52**	**14**	**15**

In several settlements, where household members were absent and unavailable for interview, village informants advised as to their whereabouts; for example, people were away temporarily, had moved away, retired or rented properties to others. Hence, third-party information contributes to the Table's completion, including judgements as to whether households had increased or decreased their involvement with tourism over time. This point is made to emphasise that the total household numbers for some columns and rows, such as increased or decreased involvement with tourism over time, and whether households are better or worse off in 2022, do not necessarily add up to the actual number of households interviewed. Further, it is noted that judgements as to whether tourism involvement had increased or decreased, and whether households are better or worse off, are subjective and based upon observations and interviews that were subject to time constraints. Thus, data in the Table should be used as a guide, rather than absolute fact. Considering such limitations, the following views are offered based upon conversations with household members and key informants.

Life hasn't changed so much for everyone.

- All household interviews reinforced the importance of tourism to the region noting its significance in terms of
  (i) income and employment, alongside its contribution to education and health services and the financing of improved water and electricity supply, for example, and
  (ii) connecting the region to Kathmandu and the world beyond Nepal, especially in terms of opportunities to "*learn generally*" as well as travel and work internationally.

Surke has changed little in 30yrs.

- Many interviewees referenced a desire to leave the region and the country, for better income or lifestyle options. Thus, Table 3 includes data illustrating the number of households with family members overseas. It illustrates, for example:
  - almost a quarter (22%) of Solu households interviewed in 2022 have members working in the Middle-East;
  - 33% of Solu households interviewed, 69% of Pharak households interviewed and 47% of Khumbu households interviewed have family members living in the US or Europe (of these, most are in the US).
- It seems possible or likely that more than 50% of Solu households that were part of the 2022 study, had decreased their involvement in tourism since the 1990s, and were worse-off in terms of income and livelihood opportunities than they were in the 1990s.

Tin roofs replace thatched roofs below Nuntalla.

- It seems possible or likely that most of the 16 Pharak households that were part of the 2022 study had deceased (9) rather than increased (7) their involvement with tourism since the 1990s; whereas the majority (8) appeared to be better- rather than worse-off (3) in terms of income and livelihood opportunities than they were in the 1990s. This seems to be owing to some households retiring and renting out or selling substantial tourism businesses.
- It seems highly likely that the great majority of Khumbu households that were part of the 2022 study had increased their involvement with tourism and were substantially better off than they were in the 1990s. This is due to increases in the size of lodge businesses and the growth in visitor numbers to the Khumbu over this period.

It is acknowledged that some of the views above are subjective and preliminary, and lacking in hard evidence. They are however based upon extensive observations and detailed conversations with a wide range of households, key informants and wider stakeholders across the income spectrum, and whose level of direct, indirect or non-involvement with tourism varies greatly. In other words, the views are earnestly considered. They also informed the trends reviewed in the following sub-sections, which provide an overview of change to the three sub-regions over the study period.

Amazing landscapes, looking down to Nuntalla.

New roads zig-zag across Kharikhola

3.1 SOLU

TOURISM, SETTLEMENTS AND ENVIRONMENT 30YRS AGO AND NOW

The number of international trekkers and domestic traffic walking the Jiri-SNP route reached its peak in the 1990s and has declined over the last 20 years. The decline is largely due to a growth in airlines operating Kathmandu-Lukla flights and increased flight availability. Other fundamental change over this period includes widespread road construction across the Solu region and new road-heads from Kathmandu to Phaphlu and Panggom. These new access points have halved walking times to and from the nearest roads to the SNP (from around 6 to 3 days). Besides changing the pattern of international visitor as well as domestic movements, these innovations have greatly affected the price and flow of foodstuffs and other goods that

(i) are in demand in Solu, and

(ii) require transportation to Pharak and the Khumbu.

The road ends at Panggom above Kharikhola - and 100s of mules takeover

The introduction of mules (and helicopters) to replace porters and transport a wide range of goods from the road-heads north has also hugely impacted the region and the dynamics of its supply chains. Thus, the structure of Solu's tourism and agricultural economies, including the produce grown across the region, has changed greatly over the last 30 years. Notable household, settlement and environment change associated with these developments that influence the quality of village life, include the following.

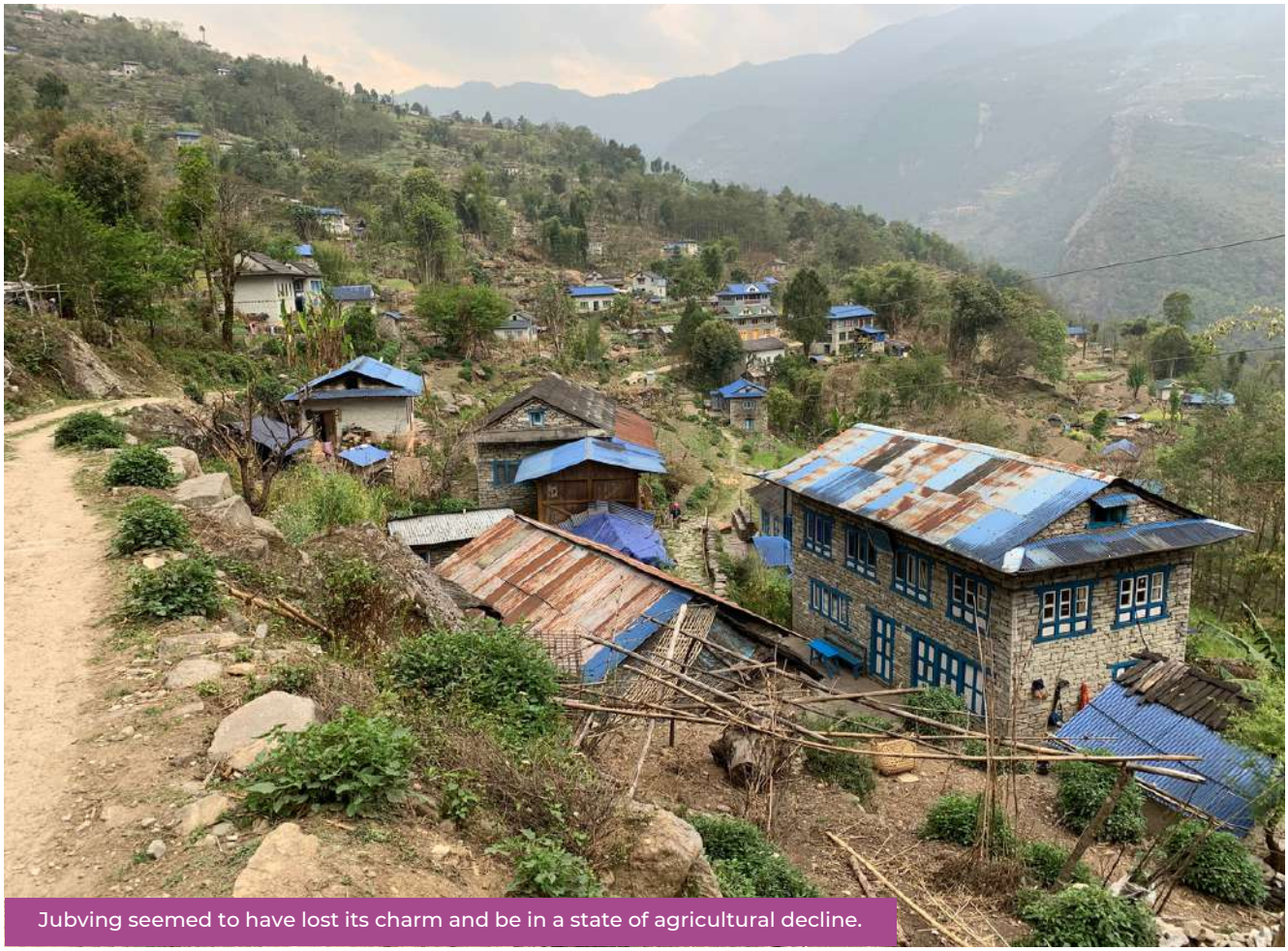
- Major decline in porter-related teashop- and lodging-incomes and livelihood opportunities.
- Major decline in trekking-related restaurant- and lodging- incomes and livelihood opportunities in almost all locations except Bupsa and especially Phuiyan which, conversely, have enjoyed a growth in accommodation.
    - Growth in conversion of rooms among surviving lodges to include ensuite facilities (and higher per-room prices).
- Increased out-migration of 20-40yr-olds to Kathmandu or overseas (principally the Middle East) for employment.
- Improved road networks leading to reduced travel times to access basic health services (especially in emergency situations) for households across Solu.
- Growth in hydro-electricity projects (including a 5MW project at Beni, between Sallerie and Junbesi) and improved household access to electricity.
- Decline in rice, millet and maize growing with an associated neglect of terraced farming, notably around Jubving and below Nuntalla (Jubving appeared to be considerably worse-off than 20yrs ago).
- Decline in apple-production between Junbesi and Ringmo and growth in Kiwi-fruit production.
- Fewer students in primary and secondary schools in many settlements (owing to preferences for education in Kathmandu).

- Improved piped water supply in and around villages and directly into almost all households.
- Increased supply and use of electricity and bottled gas for cooking among all households, reducing demand for fuelwood.
- Widespread take-up of fridges and small freezers especially in middle- and high-income households in wealthier settlements such as Junbesi, Nuntalla and Kharikhola.
- Introduction of telephone and internet services in most locations (with variable internet / data reliability).

New rural health programmes are wide spread

Hydro-project construction, Beni

The author enjoying a rest !



Jubving seemed to have lost its charm and be in a state of agricultural decline.

Kids still love sweets in Nuntalla.

Giant pipes for a new hydro-project near Junbesi.

3.2 PHARAK

TOURISM, VILLAGES AND ENVIRONMENT 30YRS AGO AND NOW

The annual growth in visitors to the SNP peaking at 58,018 in 2018, was reported in Chapter 2. Following an almost total loss of visitors in 2020 and 2021, Figure 3 depicts the region's recovery over the first five months of 2022 compared to same months in 2017, 2018 and 2019. The recovery, to around 50% of volumes achieved in 2019 and 2018, is indicative of the Khumbu's high appeal and reputation as an exceptional "must-see" destination. As illustrated in Table 4 and Map 4, high visitor demand has led to significant lodge growth, especially in Lukla and Phakding as key overnight stops, and settlements between Phakding and the SNP entry gates at Jorsale.[21] Significant household, settlement and environment change associated with this growth influencing business development and the quality of village life, include the following.

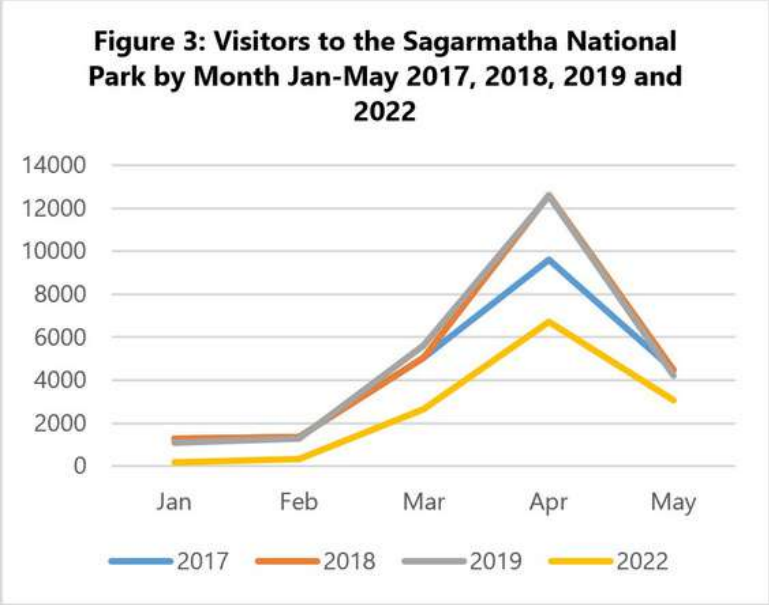


TABLE 4: PHARAK LODGE GROWTH 1993-2022

Settlement	1993	2022
Surke	5	5
Lukla	25	48
Chaurikharka	4	9
Choblung	6	10
Ghat	6	9
Phakding	14	24
Benakar	3	11
Chumoa	7	6
Monjo	6	17
Jorsale	3	14
TOTAL	77	200

- Diversification of teashops and restaurants with a variety of themed bars, bakeries and cafes (Irish bar, reggae bar, Café des Alpes, for example).
- Diversification of accommodation and growth of higher quality lodges and resorts with ensuite facilities (and per-night room prices varying from $5 to $200+).

[21] As lodges are constantly being built and renovated, and some are temporarily closed, the numbers provided are approximate. Additional lodges have also been built on many trails between settlements.

Lodges packed-in at Phakding

- Extensive trail widening and construction along almost the entirety of the Lukla-Namche route.
- Steady increase in farming, lodge, retail and construction employment opportunities throughout Pharak.
- Widespread take-up of large greenhouses growing a variety of vegetables for local consumption and transportation to Khumbu.
- Growth in government spending and local NGOs working in the health sector, leading to improved basic health services.
- Significant improvement in local education services, especially the secondary school in Chaurikharka and the primary school in Monjo.
- Fire-hydrants installed in Lukla, Chaurikharka. Choblung, Monjo (these systems also feed irrigation channels and households).
- Growth in hydro-electricity projects and improved household access to electricity.
- Increased supply and use of electricity and bottled gas (and to a lesser extent kerosene) for cooking among all households, reducing demand for fuelwood.
- Widespread take-up of fridges, freezers and washing-machines among middle- and high-income households and accommodation providers.
- Telephone and internet services, and the use of on-line booking services (such as booking.com and Agoda etc.) by accommodation providers.

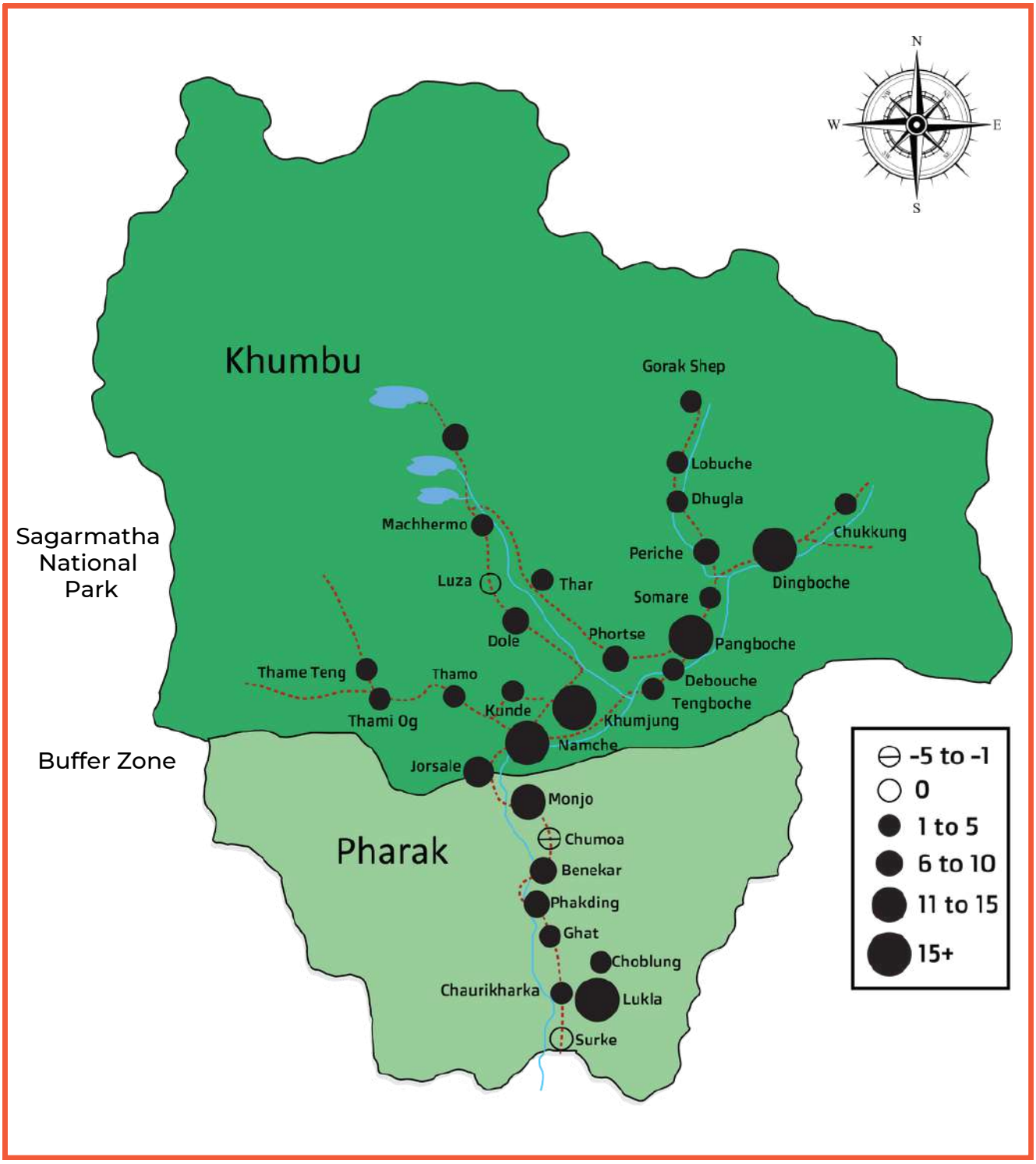
- Improved forest management and significant change from forest denudation to reafforestation on the majority of slopes between Lukla and Jorsale.
- Greatly improved waste management and reduced littering along the trails and in all settlements.
- Introduction of banks and ATMs in Luka.
- Significant new investment in monasteries, for example in Thulo Gomila and Monjo.

Mule gas train, Chaurikharka

While mules have taken most portering work, it remains an income for some.

Sizeable new health project near Phakding

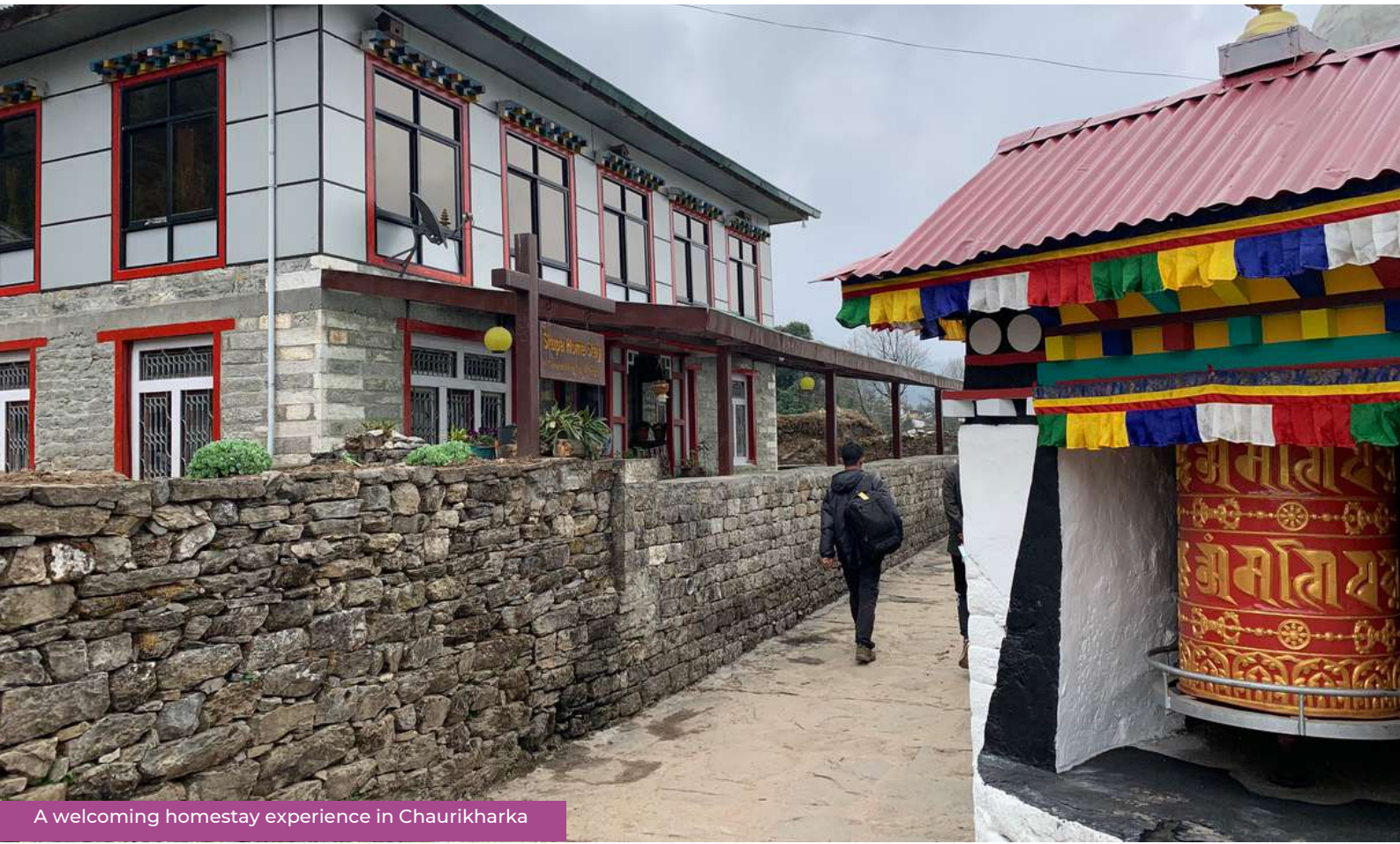
MAP 4: LODGE GROWTH IN KHUMBU AND PHARAK 1993 - 2022



Expanding greenhouses, Ghat.

Community partnership programme, Monjo

The Happiness Index survey team in Lukla



A welcoming homestay experience in Chaurikharka

Forested slopes looking healthier than 30yrs ago.

Other significant change over this period effecting the quality of village life in Pharak and Khumbu includes changes to local governance systems, which includes the formation of the:

(i) KPLRM with its five wards (that collectively replace the District and Village Development Committee system that preceded it),

(ii) SNP Buffer-zone Committee and User Groups, and

(iii) SNP Buffer-zone Forestry User groups [22]

Each of these entities operate through the appointment of democratically elected representatives, with almost all benefiting from significant capacity-building and institutional support from the government and its development partners. In addition to these institutions, other notable bodies playing key roles in the local tourism and development agenda (especially waste management and cultural conservation), include the:

(i) Sagarmatha Pollution Control Committee (SPCC) – formed in 1993 to address waste management issues (also see Box 4);

(ii) Lukla Hotel Association – formed in 2021 to improve accommodation standards and their impact on the environment;

(iii) Women's Groups established in: Phakding; Monjo and Chumao; and, Lukla;

(iv) Himalayan Youth Club, Lukla.

[22] The SNP's Buffer-zone, which includes settlements inside the park and an area extending south to Surke embracing wards 2 and 3 of the KPLRM was formally declared on 1st January 2002

The new trekking fee and police check-post outside Lukla.

New trail and safety barrier between Jorsale and Namche.

Café des Alps, near Ghat.

The old and the new, Sano Gomilla.

Traditional houses in Chaurikhara.

Trekkers ascending from Dhugla heading to Loboche

3.2 KHUMBU

TOURISM, VILLAGES AND ENVIRONMENT 30YRS AGO AND NOW

Trekking to the Khumbu's high alpine valleys, passes and base-camp sites requires acclimatisation for almost all visitors, which typically implies spending two nights in Namche as well as two nights in either Pheriche or Dingboche (if travelling toward Sagarmatha). For these reasons, as illustrated in Table 5 and Map 4 contrasting lodge numbers in key settlements between 1993 and 2022, accommodation growth in these locations has been especially marked along with Khumjung, Pangboche and Gokyo.[23] Significantly, and as with data for Pharak, Table 5 lacks data profiling the bed capacity of these establishments, which has grown markedly in recent years.

[23] As lodges are constantly being built and renovated, and some are temporarily closed, the numbers provided are approximate. Additional lodges have also been built on many trails between settlements.

TABLE 5: KHUMBU LODGE GROWTH 1993-2022

Settlement	1993	2022
Namche	25	50+
Thamo / Phurte	2	6
Thame	5	9
Thame Teng	0	2
Khunde	2	6
Khumjung	4	28
Dole	4	11
Luza	2	2
Machhermo	3	8
Thare	1	3
Gokyo	5	14
Phortse	3	9
Tengboche	5	6
Debouche	4	8
Pangboche	11	27
Somare	2	6
Pheriche	5	12
Dingboche	8	30
Chukkung	3	6
Dhugla	2	3
Lobuche	4	9
Gorak Shep	3	6
TOTAL	**103**	**261**

Juniper stands were way smaller 30yrs ago, Somare.

Notable household, settlement and environmental change associated with this growth influencing business growth and the quality of village life, includes the following.

- Significant change in accommodation building materials and design including their physical size and widespread introduction of ensuite facilities with higher quality services (per-room night charges varying from $5 to $250+).
- Diversification of teashops and restaurants with the introduction of themed bars, bakeries and cafes in Namche, and bakeries and cafes in Khumjung.
- Diversification of shops with purpose-built retail space (for example climbing and outdoor gear shops) in Namche, and significant retail growth in other settlements especially Khumjung, Kunde and Pangboche.
- Growth of banks and ATMs in Namche.
- Strong tree-growth on slopes around Namche and strong juniper recovery and growth in many sites, especially along the Thame valley.

- Reduced harvesting of turf for accommodation insultation in high alpine areas.
- Significant investment in gompas and stupas in Namche, Portse, Kunde, Khumjumg, Pangboche and Thame, along with mani-wall painting in many sites.
- Extensive trail widening and construction along most sections of the Namche-Dingboche and Namche-Khunde-Khumjung-Dole trails.
- Decline in flight activity around the Syangboche airstrip above Namche.
- Huge increase in small helicopter flights to almost all settlements along the Sagarmatha / Chukkung and Gokyo valleys.
- Greatly improved waste management and reduced littering along trails and in all settlements.
- Significant investment in basic health services, especially in Namche and Phortse health-posts and Kunde hospital.
- Growth in hydro-electricity projects and provision of solar panels and improved household access to electricity;[24] recent introduction of trail night-lighting in Thamo, Pangboche, Khumjung, Kunde.
- Widespread take-up of fridges, freezers and washing-machines among middle- and high-income households and accommodation providers in main settlements.
- Increased supply and use of electricity and bottled gas (and to a lesser extent kerosene) for cooking among all households, reducing demand for fuelwood.
- Telephone and internet services in most settlements, and use of on-line booking services by accommodation providers.
- Khumbu Climbing Center established in Phortse.
- Growth in water projects improving household water supply in all settlements.

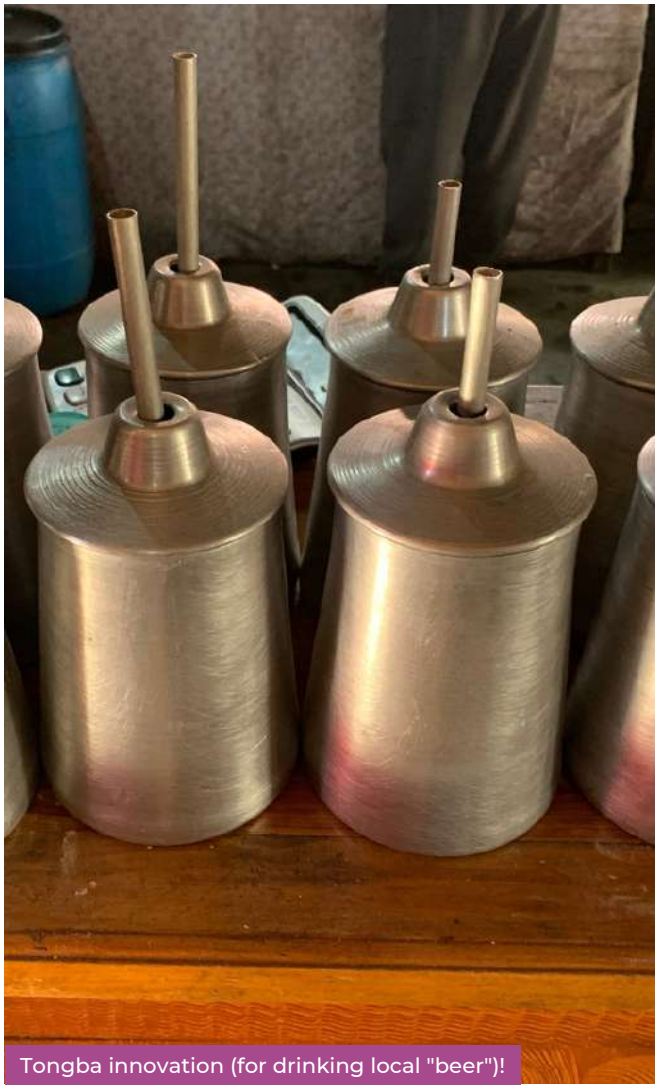
As with Pharak, the quality of life in Khumbu is also influenced and shaped by the formation of women's and youth groups, as well as accommodation associations, the most recent of which include the Pheriche and Dingboche association.

Forest litter for field fertilizer being carried to Khumjung

Monastery revitalisation, Namche

[24] It was reported the KPLRM, the World Bank and the Thamserku Group are preparing to invest in a 1-megawatt hydro-project in the SNP to deliver electricity to almost all settlements except Gorak Shep.

Few fields left with accommodation expansion, Gokyo



Tongba innovation (for drinking local "beer")!

The changing face of Namche

Solar cooker, Thame

Homeowners like to innovate, Khumjung

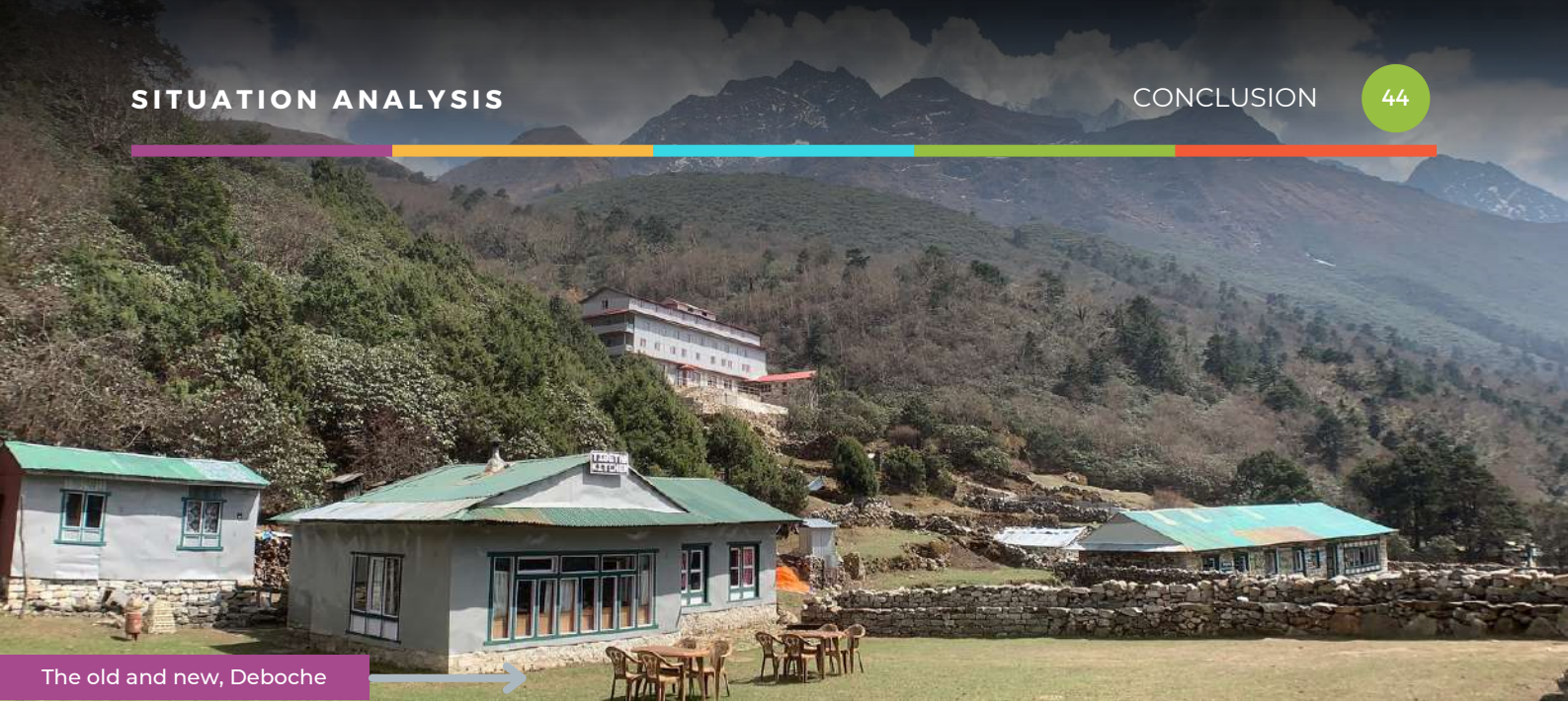
3.4 CONCLUSION

As highlighted, tourism to the Solu-Khumbu has delivered widespread, enduring benefits; and numerous negative impacts have been addressed over time. Yet, while many households have improved livelihoods and better access to health, education, water, energy, electricity and telecommunications than 30yrs ago, many others remain close to or below the poverty-line.

Most clearly, tourism-related activity has declined in Solu and is building strongly in Pharak and Khumbu. While this is unfortunate for Solu, greater action could be taken to address this decline or at least strengthen tourism-related linkages, especially agricultural supply chains between the sub-regions. For example, it was great to see product diversification in the form of canyoning in KhariKhola. Focus could also be given to promoting the take-up of organic agriculture across Solu, that can attract homestay tourists.

A clear agricultural strategy will strengthen supply chains between the sub-regions, which will likely deliver widespread benefits when the road to Chaurikharka is complete; and could be strengthened further with the construction of an electrified ropeway between the sub-regions, that has been locally advocated for many years.

International brands and on-line booking systens at home in Namche



The old and new, Deboche

In Pharak and Khumbu, tourism business growth delivers widespread benefits. It is however immensely competitive with negative repercussions; two are briefly discussed.

(i) Firstly, skill-sets and financial resources are must-have assets to develop and manage tourism businesses. Households in Pharak and Khumbu that lack these assets (and family members not motivated to risk their lives as climbing guides) will continue to struggle to lift themselves out of poverty or maintain income security. To strengthen community wellbeing, data is needed to assess the number of households caught on the poverty line, or lacking income (and food) security.

(ii) Secondly, households with good skill-sets and access to financial resources compete to innovate and start new businesses, some of which can be detrimental to the branding and cultural capital of the Khumbu as a renowned World Heritage site. Examples include reggae and Irish bars and cafés with non-Himalayan (or Sherpa) themes. Training and capacity-building on place-branding and promotion for all lodge associations and their members is a growing priority. Such trainings should be dovetailed with a wider GSTC Sustainable Tourism Training programme. The relevance and benefits of such a programme are obvious and raised again below.

Rock paintings, Thame

Burning garbage, Lobuche

SPCC's work in partnership with more than 20 local youth clubs, women's groups and others to address issues of waste and garbage management is truly remarkable and hugely impressive. Their programme, which employs 20 full-time and more than 50 seasonal staff continues to innovate and expand year on year. It also benefits from local, national and international sponsorship. Such is SPPC's success, there are likely multiple opportunities to replicate this approach in other sites in Nepal and beyond. Especially so, owing to new initiatives to pack-out garbage, produce fuel-briquettes, upcycle glass waste and partner with the Sagarmatha Next project, for example. At the same time however, additional investment and initiatives are needed, especially in high-alpine areas of the park such as Lobuche and Dingboche, where garbage is burned in open rubbish-pits, sometimes close to rivers. Emissions from such practices may not be significant in most global environments, but this is not the case in the world's highest national park and World Heritage site.

Porters near Gorakshep

PHAKDING

While many tourist destinations around the world suffer culturally from too many visitors, it is highly encouraging to see such strong retention and celebration of Sherpa culture. This was witnessed through considerable investments in monasteries, stupas and mani-walls, the artwork decorating many lodges, and also evident from many discussions concerning the health and vitality of annual Dumjie and Manirimdu festivals. As noted elsewhere, there are many reasons for this, including:

- high tourism seasonality allowing
  (i) households time-out to pause, recuperate and maintain strong community bonds, and
  (i) Dumjie festivals to thrive uninterrupted by visitation;
- the strong retention of many every-day rituals practiced by individuals and most households, such as burning juniper, lighting incense against emblems and icons, chanting and rotating rosary beads, and offering khata scarfs to welcome or bid farewell to significant others;
- the continued importance of celebrating the three main life-events of birth, marriage and death (or passing to the next stage of being); and,
- increased incomes from tourism that allow individuals and families to generously celebrate their culture and accumulate good karma.

4 KEY ISSUES

Focusing on the imperative to address enduring negative impacts, three issues are discussed that demand deliberate strategic action designed around inclusive community consultation; namely, a decline in animal husbandry, the growing and pervasive impact of small helicopters, and the proliferation of unregulated accommodation, especially at high altitude.

4.1 DECLINE IN ANIMAL HUSBANDRY

Since arriving in the Khumbu some 600 years ago, animal husbandry in the form of breeding and working with yaks and naks has been an integral part of Sherpa life and culture. In short, and with reference to an opening quote in the introduction, these extraordinary beasts of burden have their place in the SNP's World Heritage inscription. For centuries yaks have been used to transport and trade goods, initially from Tibet and more recently playing a central role in the trekking and mountaineering economies.

A cute restful moment, Phortse

Although research carried out in 2009 concludes there has been no decline in the SNP's livestock population,[25] this report concludes there is a considerable and ongoing decline. This finding is based upon the fall in yak, nak, zopkio and zum numbers owned by survey households,[26] and conversations with key informants and non-survey households. For example, one interviewee suggested that, should current trends continue, there may be no yaks left in the SNP in 15yrs time. While this discussion is centred upon the Khumbu, it is also relevant to Pharak in terms of the issues raised and a parallel fall in ownership of zopkio and zum.

[25] 2009 study by Sherpa, Y.D & Kayastha, R. B.

[26] A nak is a female yak. Zopkio and zum are cross-breads reared from a yak and a cow; zopkio being a male and zum a female. Yak and nak can only thrive at altitude and for this reason are not kept by Pharak households.

Table 6 contrasts livestock numbers kept by 40 Khumbu households included in the 1993 and 2022 surveys. It shows that in 1993, these households owned a total of 318 yak and nak, and 73 zopkio and zum. 30yrs later numbers have dwindled to 60 and 12 respectively. Interviews with a variety of locals reveal several reasons for this decline.

TABLE 6: COMPARISON OF LIVESTOCK NUMBERS KEPT BY HOUSEHOLDS 1993-2022

Settlement	Number Livestock Kept by Survey Households			
	1993 HH Survey		2022 HH Survey	
	Yak / Nak	Zopkio / Zum	Yak / Nak	Zopkio / Zum
Namche (5)	16	20	0	0
Thamo / Phurte (1)	0	3	0	0
Thame / Thame Teng (3)	69	7	20	0
Khunde (4)	29	8	8	0
Khumjung (4)	0	9	0	1
Dole / Luza / Thare (1)	3	2	0	0
Gokyo (3)	25	2	0	0
Phortse (5)	103	2	4	0
Tengboche / Debouche (2)	7	4	0	0
Pangboche (6)	35	10	8	11
Dingboche (3)	36	4	4	0
Pheriche / Dhugla (3)	50	2	16	0
Lobuche / Gorak Shep (2)	8	0	0	0
TOTAL (40)	**318**	**73**	**60**	**12**

Note: Number of survey households in each settlement shown in brackets in the settlement column.

- Yak breeding and animal husbandry is hard work. It also comes with considerable risk in terms of
  (i) attacks on livestock by growing numbers of wolves and snow leopards (some locals estimate 300-500 are lost annually), and
  (ii) livestock being killed in avalanches.
- Owning businesses such as lodges and restaurants offers higher monetary returns and potentially easier lifestyles. Similarly, incomes from working as mountaineering guides offers higher short-term financial reward. Thus, interest among householders and especially young people in animal husbandry, is declining.
- The growth in small helicopters ferrying supplies around the park has greatly impacted work opportunities for livestock owners. Helicopters move goods more quickly. Their movement from Kathmandu or Lukla straight to basecamps or strategic points reduces transport time and can increase certainty of delivery dates. The owners of helicopter companies also have easier access to market to sell their services direct to expedition organisers.

Dingboche's expanding lodges with Island Peak in the background

While it's hard to imagine the Khumbu without yaks and naks, it is evident this possibility is of real local concern. The knock-on effects in terms of loss of income to tea-shop owners and dung to fertilize pastures, barley and potato crops worries many. Should this happen, there'll also be a significant iconic and cultural loss in terms of visitor attraction, appeal and photo-opportunities. While this doesn't appear to be a future that anyone wants, it seems no-one knows how these economic forces might be addressed. Interestingly, against these trends, at least one Khumbu Sherpa is accumulating yak and nak (reportedly owning some 200 animals) and is looking to establish a yak farming project.[27]

Conversations with livestock owners confirm

(i) high interest to continue animal husbandry and employ yak in transporting goods around the park, and

(ii) strong opposition to helicopter companies heavily impacting their livelihoods.

This has led to the formation of a livestock association and a March 2022 meeting in Lukla with the helicopter companies. It is understood there was no clear meeting outcome. Helicopter issues and their impact on the tourism economy are discussed in the following section. Ultimately, the decline in yak and nak numbers is an SNP governance issue effecting the identity of the Sherpas and their cultural heritage. Thus, decisions to reduce or stop helicopters transporting everyday supplies, or perhaps subsidise the costs of animal husbandry for the greater good of this activity and its benefits to the environment and Sherpa culture, should involve the full Khumbu community in inclusive decision-making.

[27] Details available from the authors, or email cdforever92@gmail.com

Expedition materials awaiting helicopter transfer, Tragshindo Pass.

4.2 HELICOPTERS

Helicopters flights shuttling tourists, locals, supplies and expedition equipment around the park, were a memorable feature of the 2022 field mission. They marked the most significant change bringing disruption to thousands of livelihoods and a whole tourism system. Each day of the trip was marked by the noise of small 5-passenger (Ecureuil As350 series) helicopters flying up and down the Solu-Khumbu through each of the park's main valleys. Each trip ferrying passengers or goods either inside or suspended from the helicopter. They were most noticeable on walks between Periche and Gorak Shep, regularly disrupting the otherwise silent and majestic landscapes (central to the sense of place and a quality visitor experience). Box 4 summarises the benefits and negative impacts of helicopter activity.

BOX 4: THE POSITIVES AND NEGATIVES OF HELICOPTER ACTIVITY IN AND AROUND THE KHUMBU

Positives

- Emergency evacuations for health reasons.
- Convenience to move supplies and equipment, especially where deadlines are present.
- Convenience for tourists & locals, to take a "taxi-ride" to Kathmandu.
- Significant and growing incomes to nine Kathmandu-based helicopter companies (some of which have Solu-Khumbu shareholders).[28]

Negatives

- Lodge owners estimate somewhere between 30-50% of trekkers currently helicopter out of the higher reaches of the SNP to Kathmandu; meaning lodges lose out on literally thousands of overnight stays as trekkers would otherwise need to take 3-4 nights to descend to Lukla.
- Loss of hundreds, or rather thousands, of income and employment opportunities for yaks and porters who would otherwise transport supplies and expedition equipment into the Park and basecamp sites (as described above).
- Noise pollution as dozens upon dozens of flights shuttle daily low-flying flightpaths back-and-forth up the Gokyo and Khumbu valleys.
  - This is especially significant over the renowned Tengboche Monastery, which is directly in the main flightpath and a site of respect, silence and meditation (within a UNESCO World Heritage site).

[28] TripAdvisor notes Kathmandu-Kala Patar helicopter flights are sold for $2,300 per head

Gokyo Lake

It is clear from the above, that this report questions the value and purpose of helicopter activity within the SNP. This position is held owing to the Planet Happiness mantra,

> THE PURPOSE OF TOURISM DEVELOPMENT IS TO SUPPORT AND IMPROVE THE WELLBEING OF HOST COMMUNITIES. IF IT IS FAILING TO DO THIS, IT IS NEITHER RESPONSIBLE NOR SUSTAINABLE.

Against this view, in 2021 the secretary of the Airline Operators Association of Nepal noted,

> *"A decision taken by the SNP Office [to only allow flights to land in Lukla, Shyanboche and Namche] has created uncertainty in the helicopter industry. He said that the attempt to control the helicopters would affect not only the helicopter industry but also the tourism industry, the economic sector and many people would lose their jobs. He said that the credibility of Nepali tourism sector in foreign markets would be questioned, and the helicopter should be allowed to run smoothly." [29]*

[29] https://www.tourismmail.com/aoan-urges-to-lift-ban-on-helicopter-handing-inside-sagarmatha-national-park

While it's true restrictions on helicopter activity will cause job loses within the helicopter industry, it is suggested these numbers are relatively small compared to the wider job-losses their activity is causing. Moreover, the Secretary's argument is silent on the issue of carbon emissions from this activity, which is undoubtedly having an impact on the Khumbu and wider environment. Future decisions on helicopter activity affect practically the entire population of Solu, Pharak and Khumbu. The inclusive destination management approach advocated by Planet Happiness offers local households and the Khumbu Pasang Lhamu Municipality a viable opportunity to engage and consult with local people on this issue.

At least 28-Beam on the trail to Gokyo

4.3 ACCOMMODATION AT HIGH ALTITUDE

30 years ago some 50% of SNP visitors camped while the other 50% stayed in lodges, many of which only had dormitory accommodation. Today few if any visitors camp. Many choose private rooms with ensuite facilities and electric blankets. Tables 3 and 4 depict SNP-BZ lodge growth over 30 years, illustrating marked growth in many settlements including those in high-alpine areas such as Dole, Machermo, Gokyo, Deboche, Pangboche, Somare, Pheriche, Dingboche, Chukkung, Dhugla, Lobuche and Dingboche. The Tables don't include data on room numbers that, per property, is increasing. Examples include two lodges in Gokyo that have a combined capacity of 100 rooms and a third under construction with a planned 39 rooms. Images of these and other sizeable lodges at Deboche, Dingboche and Lobuche are included in this report.

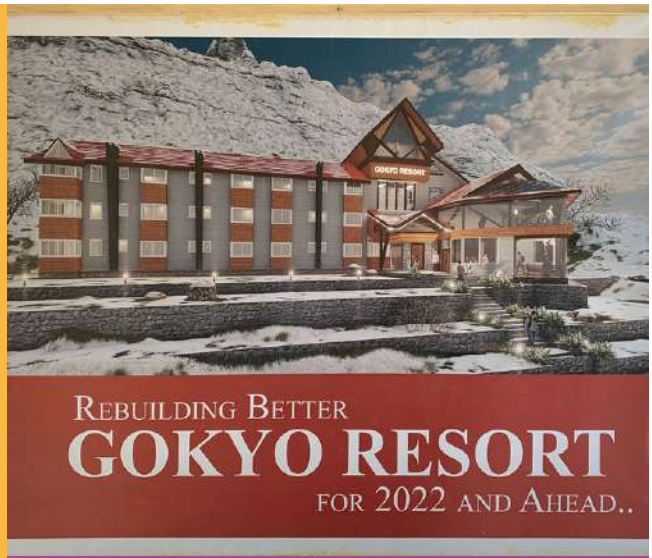
Lodge expansion, Dole

Three points are clear from the images of many new lodges being constructed in the Khumbu:

(i) buildings bear little resemblance to traditional Sherpa houses and building styles,

(ii) they are regularly constructed with non-traditional, alternative materials, and

(iii) they have a high impact upon, and significantly alter the Khumbu's cultural landscape.



The new face of Gokyo.

Plumbing and decoration challenges, Gokyo

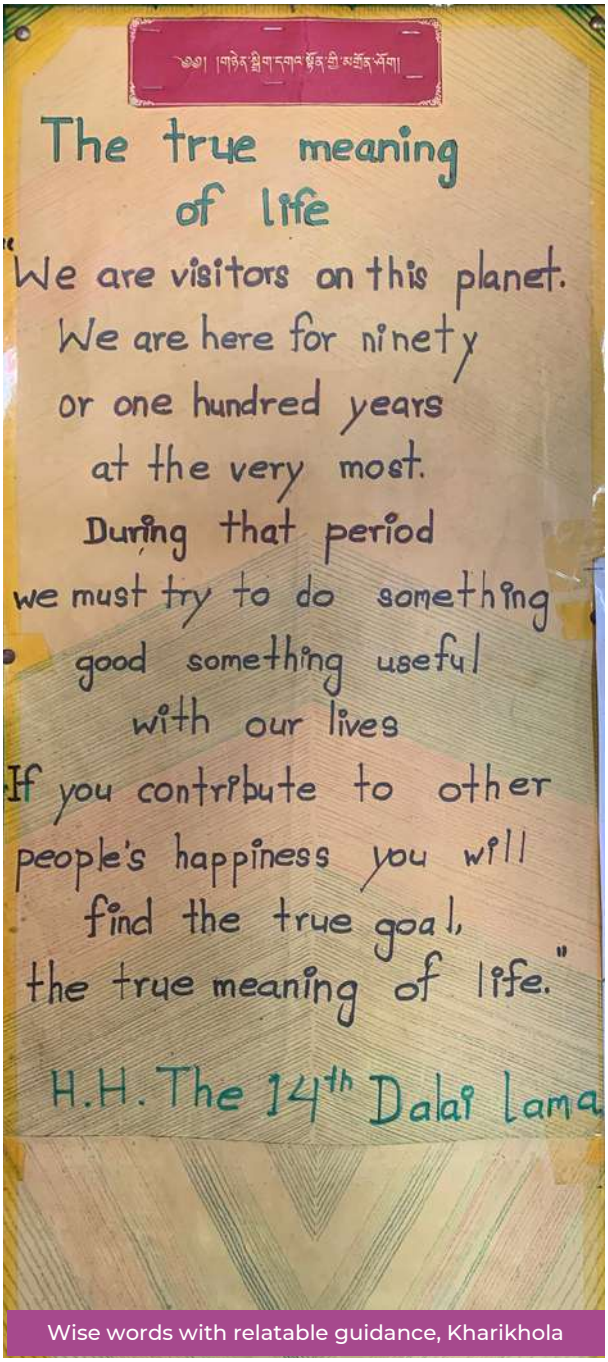
When the SNP was gazetted in 1976, settlements were technically excluded from the park to accommodate local concerns for development rights and allow for future change and development. Thus, in brief, and in the context of Nepal's wider development laws, rules and regulations, there are few controls regulating planning permission and building guidelines. Consequently, while lodge growth continues unabated throughout the park on land traditionally owned by Khumbu residents, there are growing reports and concerns of building impacts generally and also developments encroaching upon park land. Against this background and bearing in mind strong visitor growth is likely to continue for decades to come, four additional issues are highlighted.

Lodge expansion, Thame

- Given trends to provide ever-improving standards of service, the capital investment required to build accommodation is growing year on year. Consequently, investment finance increasingly occurs through ever-increasing bank loans, as well as share-holder arrangements with outside investors. Thus, decreasing market access for many local households.

- During the 2022 field mission, owing to high visitation, several instances were encountered where porters and guides were struggling to find accommodation. This is a problem that has been going on for years. It occurred with our team in Gokyo, Lobuche and Gorak Shep and even Dingboche (with its 30 lodges). Stronger action, perhaps in the form of codes of conduct that lodge owners sign up to, is needed to address enduring issues of porters as well as domestic visitors being denied accommodation in favour of higher paying foreigners.

- Once built by local landowners, lodge management is often leased to non-locals who lack cultural and environmental attachment to the site. Critics of this practice note
  (i) management priorities are to maximise revenue generation to cover relatively short lease agreements and enlarge profits, and
  (ii) there are concerns that corners are cut especially with regards to waste management practices.



Wise words with relatable guidance, Kharikhola

Dormitories no more.....

From a distance 30 lodges seemingly...

- Waste from lodges can be categorised into three types, namely

garbage

grey-water run-off from kitchens, sinks and showers

human-waste

Images of garbage being burned in open pits at high-altitude are included in this report. Lodge owners and managers typically state grey- and human-waste is caught in septic-tank systems, which don't pose a threat to the environment. The reality is, grey waste (with rice and other staples) was witnessed running along paths in Dingboche, for example. Moreover, there are no monitoring systems in place to

(i) approve proper construction of septic tank systems and their compliance with any building standards, nor

(ii) monitor their use over time.

A locally elected official was especially concerned that leakage from septic tanks in Gokyo could easily pollute the sacred lake.

Considering the above issues, and the high-probability of continued visitor growth for decades to come,

WHAT WILL BE THE MEDIUM- AND LONGER-TERM CONSEQUENCES OF THESE GROWTH TRENDS?

What will the small settlement areas of Gokyo, Lobuche and Gorak Shep look like in another 10-20years, let alone Dingboche and other settlements along the main trail that are progressively being transformed by tourism growth?

Some lodge owners seek to retain vernacular building designs, Gokyo

Experience from other high-pressure sites suggests, to avoid race-to-the-bottom scenarios, planning controls and guidelines are needed. Settlement plans are needed to:

(i) regulate proper capture of grey and human waste,

(ii) ensure culturally sensitive building styles and materials are locally agreed and adopted,

(iii) avoid building competition undermining opportunities for quality tourism; and,

(iv) ensure a spread of accommodation price-points for different levels of visitor spend.

.....ensuites are now common-place

Lodge expansion, Gokyo

If these issues aren't addressed, it is inevitable negative media publicity will occur as settlements become increasingly crowded and unsightly. It is emphasised there are many examples where such landscape planning has adopted and inclusive community-consultation approach, with plans approved by resident groups' as well as locally elected and central government departments. [30]

Regarding regulating the capture of grey and human waste, consideration might be given to further empowering SPCC (as the region's pollution control entity) to officially monitor the construction and annual operation of lodge waste infrastructure. In brief, besides the park or the KPLRM adopting new waste management rules and regulations, this would entail

(i) SPCC staff being trained in regulatory measures, and

(ii) accommodation providers paying an annual fee to SPPC to monitor and approve their waste management operations.

[30] See for example, https://www.hansenpartnership.com.au/projects/vang-vien-town-and-environs-master-plan-laos/

This general approach is practiced elsewhere and could be discussed and advanced as part of a GSTC Sustainable Tourism Training Programme that was recommended in Chapter 3.

Having considered three key priority issues requiring an urgent and considered management response to improve the sustainability of the site's tourism system, the next chapter focuses upon wellbeing issues and steps that might be taken to strengthen the tourism and community wellbeing relationship.

Lodge growth, Lobuche

New lodge design, Deboche

5 COMMUNITY WELLBEING

The Happiness Index survey was deployed to measure and assess individual and community wellbeing in the Khumbu Pasang Lhamu Rural Municipality (KPLRM) between 29/03/2022 and 11/05/2022. Figure 4 depicts the surveys' 12 wellbeing domains. Box 5 lists five questions added to localise the survey and measure wellbeing around the issues of: education and health service provision; SNP management; threats to community wellbeing; and, climate change. [31]

FIGURE 4: THE PLANET HAPPINESS 12 WELLBEING DOMAINS

The survey was deployed with the support of the KPLRM in settlements north of Surke (in Wards 2, 3, 4 and 5). Responses were collected online. Ward chairs connected the research team to community activists (from women's-, youth-, forestry-user-, lodge management- groups and associations, for example) who acted as enumerators sharing the survey's URL among their community via facebook, whatsapp and viber groups, for example, or by going door-to-door to share the link. Owing to poor or no internet connectivity, very few surveys were completed in the Thame Valley, or above Dole and Pangboche in the Gokyo and Khumbu Valleys.[32]

[31] For more information about the domains, methodology and specific questions included in the Happiness Index, see https://scholarworks.waldenu.edu/jsc/vol9/iss1/2/

[32] During the time of deployment, the Everest-Link internet service wasn't functioning at its best. Improved internet connectivity throughout the park is expected in due course.

Happiness Index surveys and conversations, Thulo Gomila.

A total of 778 surveys were completed. Of these 652 were considered complete (90% completion or above) and 126 partially complete.[33] As

(i) partially complete surveys reflect a respondents' wellbeing, and

(ii) in this case study, complete and partially complete responses reflected minimal difference in KPLRM domain scores, the report includes data for complete and partially complete surveys.

Sub-sections below summarise some key findings from the wealth of data collected that has wide-ranging use and potential application for the KPLRM.[34] As the data provides a baseline for future wellbeing measurement and comparison, an aim of this discussion is to

(i) encourage community and KPLRM interest and engagement with the data, and wellbeing science, policy and practice, and

(ii) gather additional data in future iterations for policy use and application.

In many instances below, suggestions are provided for interventions that could strengthen community wellbeing. These are simply suggestions. It is emphasised that data

[33] This implies a finish rate of 84%, which is considered to be an excellent completion rate.
[34] An additional more detailed technical report and explanation of the data is available here [insert hyperlink].

findings are intended to be shared and discussed with residents and communities, to spark conversations about tourism and wellbeing, and for them to make their own suggestions and recommendations; thus, enabling tourism planning and decision-making to be more inclusive, evidence-based and directed towards strengthening host community wellbeing.

BOX 5: THE FIVE QUESTIONS TO LOCALISE THE HAPPINESS INDEX

01 **"Overall, how satisfied are you with the quality of school education in the SNPBZ?**

- *Respondent selects one of: Very dissatisfied; not satisfied; neither satisfied nor dissatisfied; satisfied; very satisfied"*

02 **"Overall, how satisfied are you with the quality of basic health services in the SNPBZ?**

- *Respondent selects one of: Very dissatisfied; not satisfied; neither satisfied nor dissatisfied; satisfied; very satisfied"*

03 **"Overall, how satisfied are you with the way the SNP is managed?**

- *Respondent selects one of: Very dissatisfied; not satisfied; neither satisfied nor dissatisfied; satisfied; very satisfied"*

04 **"What do you feel is the greatest threat to community wellbeing in the SNPBZ?**

- *Respondent selects one of: growing numbers of outsiders owning land; loss of livestock (yak, etc farming) inside the SNPBZ; climate change; too many tourists; outmigration of Sherpas; decreasing birth-rate among Sherpa community; growing number of non-Sherpas managing local businesses; loss of Sherpa culture, language and traditions; other, please state."*

05 **In relation to climate change, what is your greatest concern?**

- *Open-ended short answer.*

Well being and quality of life conversations, Thame Teng

5.1 SURVEY RESPONSES BY WARD AND SETTLEMENT

Survey takers were asked to state where they live by ward and settlement. The 647 responses to these questions are illustrated in Table 7, which shows people often stated they live in two or more wards. Data for people living in more than one ward is included in the wider analysis based on the assumption that some people have more than one home.

TABLE 7: HAPPINESS INDEX SURVEY COMPLETION BY WARD AND SETTLEMENT

Ward 2	Count	Multiple
Lukla	203	15
Surke	19	2
Total	222	17
Ward 4	**Count**	**Multiple**
Khumjung	48	7
Phortse	41	
Khunde	9	2
Tengboche	2	2
Pangboche	2	
Dingboche	2	
Dole	1	1
Periche	1	
TOTAL	**106**	**12**

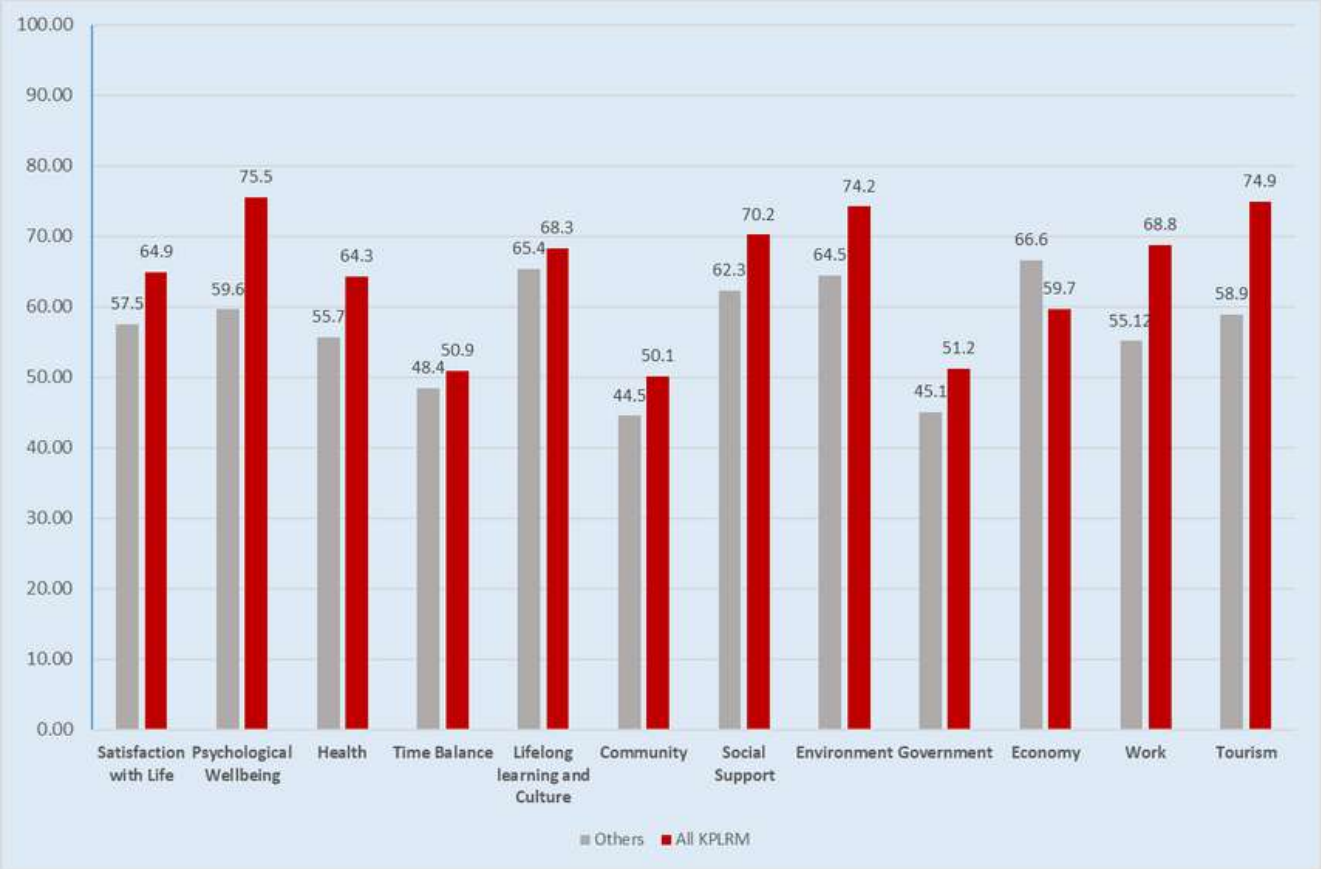
Ward 3	Count	Multiple
Charikharka	88	5
Benkar	42	
Monjo	29	
Jorsale	9	
Thulo	7	5
Sano Gumilla	2	1
Ghat	1	
Total	**178**	**11**
Ward 5	**Count**	**Multiple**
Namche	126	11
Thamo	10	
Thami	4	2
Phortse	1	
TOTAL	**141**	**13**

5.2 DOMAIN SCORES COMPARED TO OTHER SURVEY TAKERS

Figure 4 contrasts the 12 domain scores for the KPLRM with all other Happiness Index takers.[35] Scores are on a scale of 0-100, with 100 being the happiest possible score and zero the worst possible score. Overall average domain scores for the KPLRM's 778 respondents are 7.9% higher than all others who took the Happiness Index over the same period.

KPLRM respondents score higher than all other survey takers in every domain except Economy. Scores are 15.9 points higher for Psychological Wellbeing and Tourism; 13.6 higher for Work; 9.7 higher for Environment and 8.6 higher for Health, whereas they are 6.9 points lower for Economy. Differences between the two groups suggest that while tourism clearly underpins high wellbeing for KPLRM residents, overall community wellbeing would increase if more respondents were economically secure.[36]

FIGURE 5: DOMAIN SCORES FOR KHUMBU PASANG LHAMU RURAL MUNICIPLAITY AND ALL OTHERS 29/03/2022 - 11/05/2022

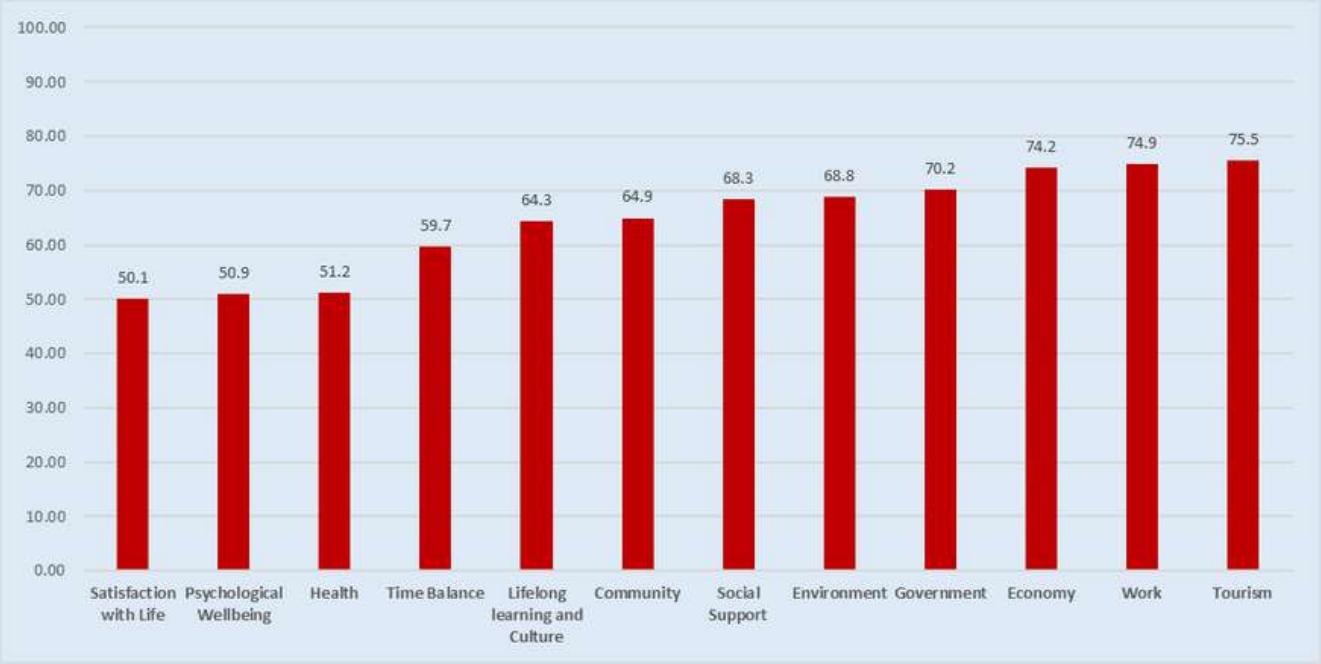


[35] Some 1,673 people from 53 countries (mostly the USA, UK, Australia, United Arab Emirates and India) took the Happiness Index over the same survey dates. Of these, 719 answered the survey's tourism questions.
[36] When presenting these results to resident discussion groups, comparisons are also made between wards.

5.3 DOMAIN SCORES LOW TO HIGH

Figure 5 depicts low to high domain scores for all KPLRM respondents. It illustrates areas for improvement and strengths to build upon. Scores are low in the domains of Community, Time Balance and Government, and high in Psychological Wellbeing, Tourism, and Environment. The data suggest an option to build upon strengths might be coordinated action that brings tour companies and community members together with the aim of furthering tourism's contribution to the conservation or restoration of natural and cultural assets. This might play out, for example, with community members engaging with visitors to give both parties a sense of purpose and meaning in life, such as by helping build a community or public structure (perhaps in locations off the main trails); tutoring youth; helping support animal husbandry (perhaps by trekking groups purchasing and bringing grass to the Khumbu from lower altitudes), or other activities that foster long term, enriching relationships.

FIGURE 6: KHUMBU PASANG LHAMU RURAL MUNICIPALITY DOMAIN SCORES - LOW TO HIGH



Time Balance is a domain where low scores are common across geographies and demographics. Interventions that provide people with opportunities to relax, enjoy themselves and foster community and trust in government, include government or agency supported hyper-local fun festivals, such as a music, food or events which may include quirky and engaging activities such as an ugliest dog competition, a wife carrying race, (broken) cell phone throwing completion or similarly funny competitions.[37] Other examples more relevant to the SNP might

[37] Weird Competitions Around the World. www.stacker.com/stories/3529/25-weird-competitions-around-world

include the park administration convening interactive fun-events explaining the importance of wildlife and protected areas to Nepal's (and the planet's) development. At a policy level, scores in the domain of Time Balance may be improved with policies that ensure workers have vacation time, sick leave, maximum hours worked a day or week, and adequate breaks each day. Such policies are often only effective when enforced for employers and incentivized for independent workers.

TABLE 8: WARD DOMAIN SCORES

Domains	Ward 2	Wards 3	Ward 4	Ward 5	Greatest Differences
Satisfaction with Life	66.5	66.3	68.5	62.4	6.1
Psychological Wellbeing	77.5	73.2	73.8	75.8	4.4
Health	65.8	64.2	66.1	59.3	6.5
Time Balance	51.4	**48.2**	50.7	54.6	6.4
Lifelong and Culture	73.6	65.1	65.3	66.0	8.5
Community	**41.8**	55.8	52.2	53.5	14.0
Social Support	70.8	71.0	69.1	66.7	4.3
Environment	73.9	76.7	71.2	72.2	5.5
Government	50.3	50.2	56.6	54.1	6.4
Economy	55.0	61.3	60.5	65.3	10.2
Work	73.1	64.4	65.4	71.1	8.7
Tourism	**78.1**	72.9	73.8	73.9	5.2
SNPBZ Satisfaction	72.3	55.9	65.5	72.5	16.6
Overall average	**65.4**	**63.3**	**64.5**	**65.2**	

5.4 DOMAIN SCORES BY WARD

The ward with the fewest survey takers is Ward 4 with 106 respondents, while the ward with the most responses is Ward 2 with 222 respondents. The highest overall domain score (average of all domains) is Ward 2 with 65.4, followed by Ward 5 with 65.2, Ward 4 with 64.5 and Ward 3 with 63.3. The small difference of 2.1 points between Wards 2 and 3 might be explained by the difference in sample size. Table 8 and Figures 6 and 7 compare domain scores between each ward and is followed by a series of bullets assessing differences between the scores.

FIGURE 7: WARD DOMAIN SCORES, PART ONE

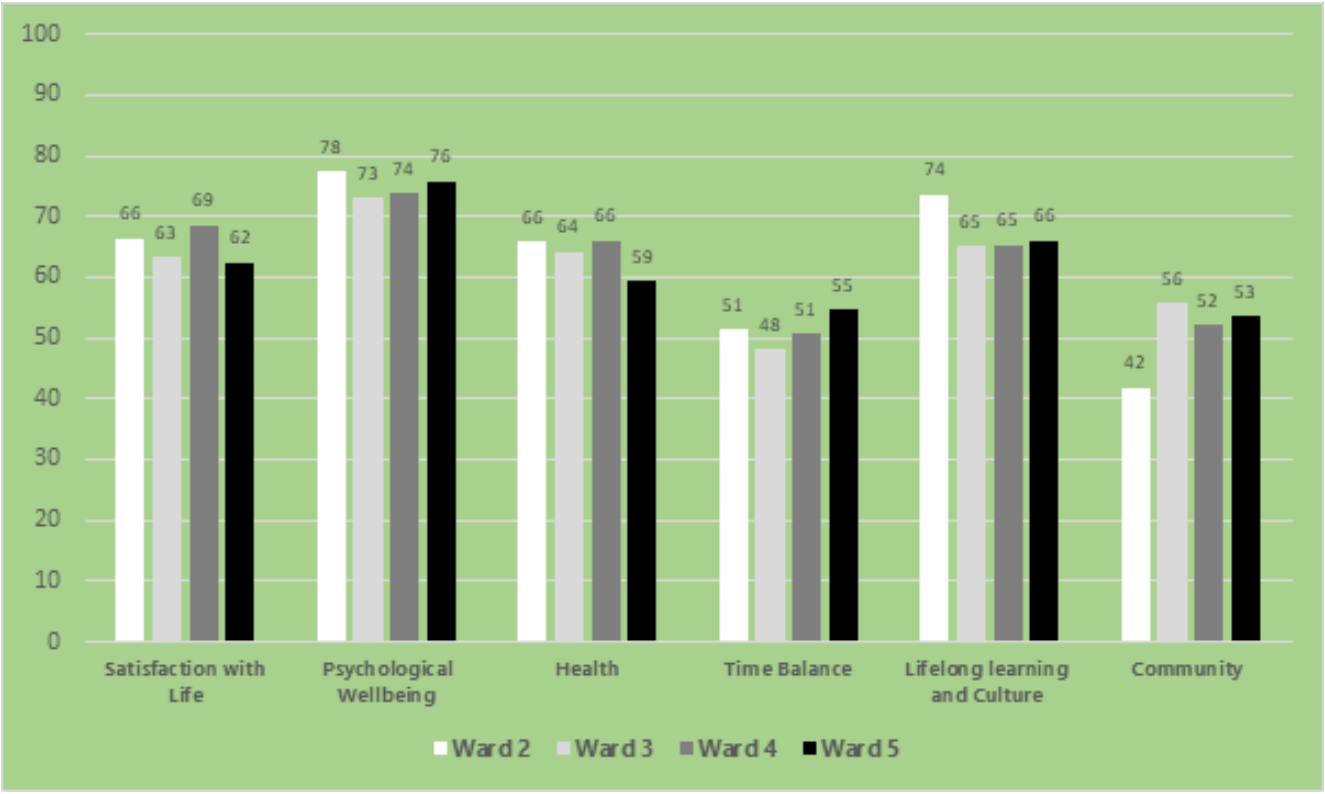
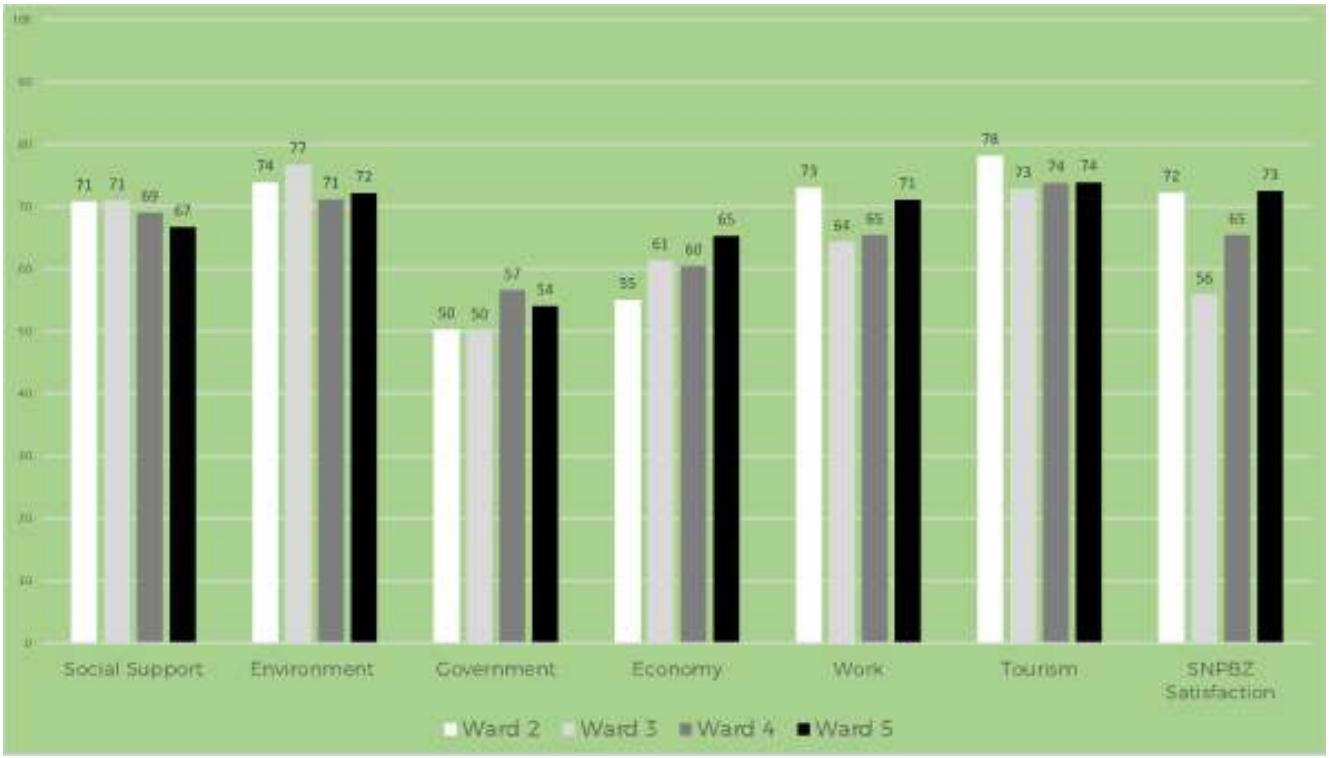


FIGURE 8: WARD DOMAIN SCORES, PART TWO



- The domain with the largest difference is SNPBZ satisfaction (combining scores for responses to questions 1, 2 and 3 in Box 5), with Ward 5 scoring 16.6 points higher than Ward 3. The domain with the second largest difference is Community, with Ward 3 scoring 14 points higher than Ward 2. Ward 5 scored higher in Economy by 10.2 points than Ward 2.

- The ward with the lowest score in any domain is Ward 2 with a score of 41.8 in the domain of Community. The scores of other wards hover no more than 5.8 points above neutral (50 out of 100), meaning people are neither satisfied nor dissatisfied.
    - Most surveys completed for Ward 2 come from Lukla, a comparatively new, fast-growing settlement and business hub, which possibly lacks the "soul" of other settlements that are in part bound together by steeper traditions including off-season annual festivals that are missing from Lukla.
- The second lowest score in any domain is 48.2 in the domain of Time Balance for Ward 3. Other ward scores hover no more than 4.6 above neutral, meaning people are neither satisfied nor dissatisfied with the time balance in their lives (this is surprising as the survey was deployed during a peak trekking season).
- The ward with the highest score in any domain is Ward 2 with a score of 78.1 for Tourism. Other wards also score in the seventies for this domain indicating overall satisfaction with tourism. It is noted Ward 2 scores lower than other wards in the domain of Economy, indicating close to neutral satisfaction and income insecurity.
- The second highest score in any domain is Psychological Wellbeing for Ward 2 with a score of 77.5. Other wards score in the lower to mid-seventies, indicating all wards score strongly in the domain of Psychological Wellbeing.
- Domains in which wards are not thriving include Community, Time Balance, and Government, with scores in the 50s or a little below. The domain of Economy also has a score that warrants attention, with scores ranging from 55 in Ward 2 to 65.3 in Ward 5. Improving scores in these domains would make life better for these residents. Policies that ensure revenues and profits from tourism business are kept in the community and more equitably distributed could help improve scores in the domains of Economy and Government.
- Domains in which wards are thriving are Psychological Wellbeing, Environment and Tourism. Improving scores in the domains of Community, Time Balance, Government and Economy via policies and interventions related to the domains of Psychological Wellbeing, Environment and Tourism could improve multiple aspects of people's wellbeing.
    - The use of a wellbeing screening tool to determine if benefits outweigh costs is an example of a policy approach that could be beneficial in the short and long term and across domains. A detailed example of a screening tool that provides a basis for application in the KPLRM is included in the accompanying technical report.

Analysing data for high and low scores to questions for all KPLRM, alongside differences between wards, can guide and provide direction for policies and interventions.

Well being and quality of life conversations, Thame Teng

5.5 HIGH SCORES AND SOME IMPLICATIONS.

High scores are 75 or above indicating “satisfied” with a score of 100 indicating “very satisfied.” Scores of 75 and above reflect flourishing and wellbeing. Optimally, all people would have scores in the range of 75 for all questions, or close thereto. Realistically, circumstances whereby all people have scores over 50 (above neutral) are desirable goals for communities and governments to aim for. Box 6 sets out tables with the high scores for all survey takers and for each ward, which are discussed below.

Thulo Gomilla's new monastery

All KPLRM responses show high scores for 11 questions. On average, some 85% of questions have scores of 50 and above. High scores do not mean no action is needed as our wellbeing is continually impacted by local, national and global events such as climate change, COVID-19 and international conflict. Threats to KPLRM scores include climate change, the decline in animal husbandry and disruption caused by helicopter activity. In terms of efforts to strengthen overall wellbeing, high scores serve as directions for positive change. KPLRM scores indicate engagement with (especially responsible and sustainable) tourism

(i) gives people a sense of purpose,
(ii) empowers people to meet family and community needs,
(iii) enables people to be treated as an important part of the community, and
(iv) presents opportunities to strengthen family and KPLRM community wellbeing.

While Ward 2 has more high scores than other wards, with 18 questions having high scores, it also has more low scores than other wards. 10 questions have low scores; among these, three are below 40. High scores provide insights that identify what contributes towards the wellbeing of the survey takers. In the case of Ward 2 it is: having a sense of accomplishment; feeling that people care about one; being productive; and, having autonomy at work. These responses guide the direction for policies and interventions to maintain and improve the wellbeing of people in Ward 2. Similar analysis could be applied to Wards 3, 4 and 5 (with the results being presented and discussed in community meetings), to seek common themes and suggestions to guide wellbeing interventions.

BOX 6: HIGH SCORES [PR1] ON A SCALE OF 0-100 WITH 100 BEING MOST SATISFIED AND "HAPPY"

All KPLRM Respondents										
Purpose and meaning in life	Engaged in daily activities	Feeling optimistic	Feeling positive about yourself	Feeling of discrimination*	Sense people care about you	Opportunities to enjoy nature	Air quality	Going hungry*	Number of Visitors	Local Jobs created by Tourism
76.02	74.96	77.03	76.32	76.88	75.72	78.43	78.08	82.37	90.99	80.26

WARD 2																
Purpose and meaning in life	Engaged in daily activities	Feeling optimistic	Sense of accompli-shment	Feeling positive about yourself	Having energy	Fellings of discrimina-tion*	Sense people care about you	Opportunit-ies to enjoy nature	Air Quality	Going hungry*	Productive conditions at work	Autonomy at work	Satisfacti-on with toursism	Number of Visitors	Local jobs created by tourism	Tourism promotes local culture	Toursim promotes local product production
77.17	77.28	79.47	75.91	77.73	75.00	85.80	76.92	78.62	76.01	76.35	77.60	77.58	76.45	92.53	78.17	75.00	76.16

WARD 5											
Purpose and meaning in life	Engaged in daily activities	Feeling optimistic	Feeling positive about yourself	Satisfaction with safety	Sense people care about you	Satisfaction with opportunities to enjoy nature	Satisfaction with air quality	Going hungry*	Autonomy at work	Number of Tourists	Local Jobs created by Tourism
78.47	75.74	76.14	76.12	78.89	76.28	75.90	77.72	80.36	76.44	86.82	79.60

WARD 3								
Feeling optimistic	Feeling of discrimination*	Sense people care about you	Satisfaction with opportunities to enjoy nature	Satisfaction with air quality	Going hungry*	Satisfaction with toursism	Number of Tourists	Local Jobs created by Tourism
75.78	82.14	75.00	81.59	81.34	86.82	76.10	89.23	83.38

WARD 4					
Feeling positive about yourself	Sense people care about you	Satisfaction with opportunities to enjoy nature	Going hungry*	Number of Tourists	Local Jobs created by Tourism
78.00	74.75	74.75	90.48	95.50	79.37

5.6 LOW SCORES AND SOME IMPLICATIONS.

Low scores are below 50. A score of 50 is neutral. Scores of 25 indicate "unsatisfied" and a score of zero indicates "very unsatisfied." Box 7 presents tables showing the low scores for all survey takers and for each ward. The results are discussed below.

BOX 7: LOW SCORES ON A SCALE OF 0-100 WITH 100 BEING MOST SATISFIED AND "HAPPY"

All KPLRM Respondents							
Wallet question	How often you volunteer	Feeling rushed	Trust in national government	How often you donate	Sense of corruption in local government	Sense of having enough money	Just getting by financially
34.82	37.10	38.65	42.64	43.68	44.03	47.85	48.92

WARD 2									
Sense that people are trustworthy (will return your lost wallet)	How often you volunteer	Trust in business	Trust in neighbours	Feeling rushed	Sense of having enough money	Trust in national government	Feeling healthy	How often you donate	Sense of corruption in local government
19.68	27.05	30.57	34.16	38.46	40.58	40.61	41.06	41.82	44.71

WARD 3		
Feeling rushed	Sense of corruption in local government	Trust in national government
39.38	42.54	42.66

WARD 4		
How often you donate	Just getting by financially	Feeling rushed
36.75	40.57	40.93

WARD 5		
Feeling rushed	How often you donate	Anxiety
36.87	39.15	39.70

For all KPLRM respondents, lowest scores are in response to the question that gauge's trust in people within the community, which is measured by "the wallet question". [38] While overall responses provide a score of 34.82, meaning people typically think it unlikely their wallet would be returned, wider research shows that the rate of wallet-return is greater than people typically expect.[39] Other questions where scores are low are in volunteerism, at 37.1; and sense of feeling rushed, at 38.65. Less than satisfactory but positioned close to neutral are scores for the questions of:

- trust in national government at 42.64;

[38] The wallet question is "Imagine that you lost a wallet or purse that contained two hundred dollars. Please indicate how likely you think it would be to have all of your money returned to you if it was found by someone who lives close by."

[39] Helliwell, J. &Wang, S. (2010). Trust and Well-being, see www.nber.org/system/files/working_papers/w15911/revisions/w15911.rev0.pdf

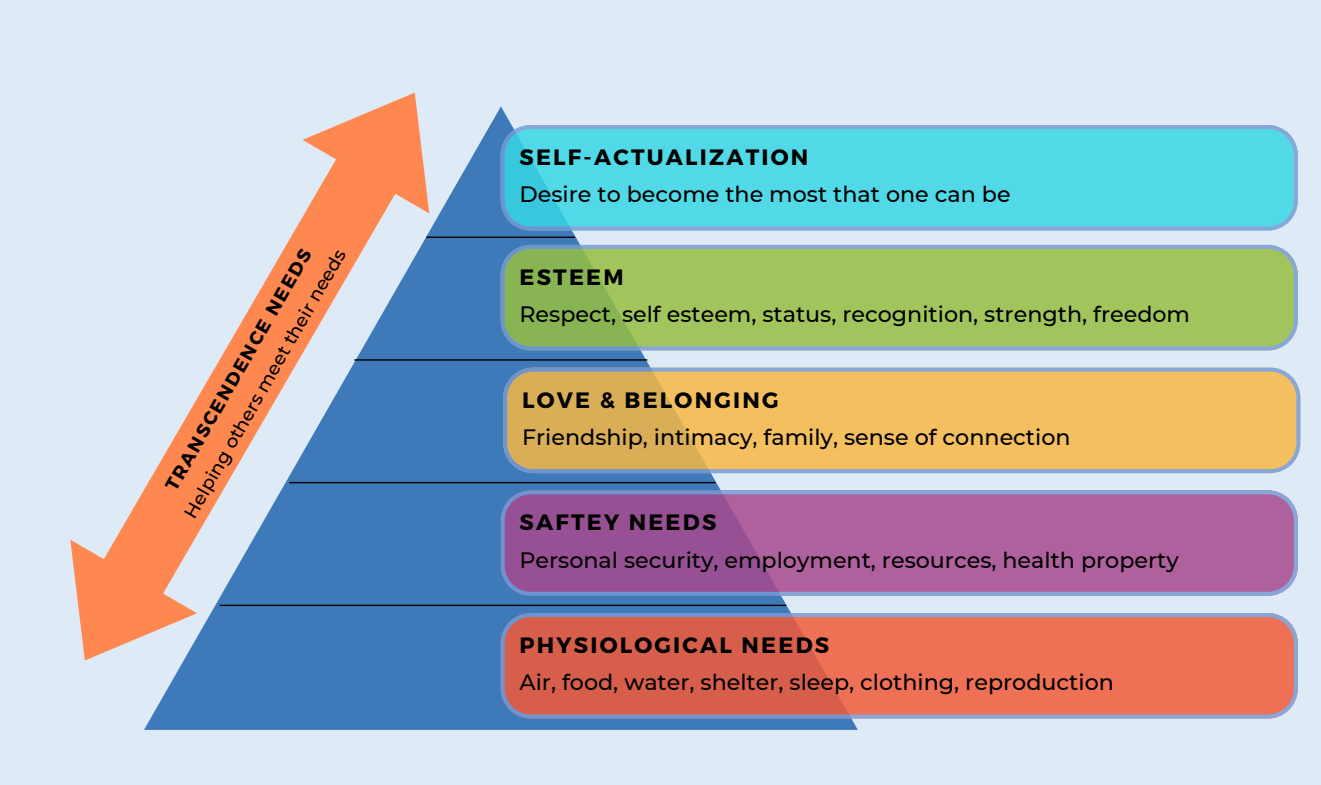
- how often a person donates money at 43.68;
- sense of corruption in local government, at 44.03;
- sense of having enough money at 47.84; and
- just getting by financially at 48.92.

Three generations of hospitality and warm welcomes !

To improve resident and community wellbeing, the data indicates a need for policies and interventions that encourage neighbours and community members to help each other meet individual needs, including for sustenance, safety and belonging, esteem, self-actualization and transcendence. The relationship and workings of these needs are captured in Maslow's Hierarchy of Human Needs depicted in Box 8.[40] Transcendence needs are often met by helping others. A potential intervention in this area might be a KPLRM- or community-supported mentoring program to promote responsible tourism activity, whereby locals with strong business experience mentor local youth to help start or expand their careers in tourism. An initiative of this type might be aligned and sequenced with the design and implementation of a GSTC Sustainable Tourism Training Programme, as recommended in the conclusions to Chapter 3.

[40] See also https://www.simplypsychology.org/maslow.html & https://en.wikipedia.org/wiki/Maslow%27s_hierarchy_of_needs

BOX 8: MASLOW'S HIERARCHY OF HUMAN NEEDS WITH TRANSCENDENCE NEED



Ward 2 had the most low scores and the lowest score of all domains with a score of 19.68 in response to the lost wallet question. Other Ward 2 low scores are: frequency volunteering at 27.05; trust in business at 30.57; and trust in neighbours at 34.16. Scores for Ward 2 may indicate the possible threat or future occurrence of actions that undermine good relations within the community. Further investigation into these issues and efforts to build trusting relationships may be fruitful.

Similar to Ward 2, Wards 3, 4 and 5 are low in the same questions that are low for all KPLRM respondents. Ward 5 scores for anxiety are relatively low at 39.70, warranting investigation into causes for anxiety, and options to address such causes.

Ward 4 scores for getting by financially are relatively low at 40.57, warranting investigation into factors that contribute to financial distress. Many such factors are measurable with objective indicators, such as the cost of (and access to) housing, healthcare, education, and other means of meeting basic needs.

5.7 SATISFACTION WITH TOURSIM

Scores in the Tourism domain are relatively high, indicating people are mostly positive to its development. Scores may also be high as residents are very pleased that visitors are returning following the two-year loss of visitation owing to COVID-19. Table 9, depicting KPLRM scores to the tourism questions, shows the lowest scores in

this domain are from the statements

(i) *"There are policies, strategies and programs that promote sustainable use of natural resources for tourism at my site"* at 68.1, and

(ii) *"Tourism promotes production of local products at my site"* at 69.6.

While these scores are not low, they imply room for improved wellbeing with policies and programs that encourage the production, promotion and sale of locally sourced eco-friendly products and services, as well as policies that require and enforce improved sustainability (such as those discussed elsewhere in this report).

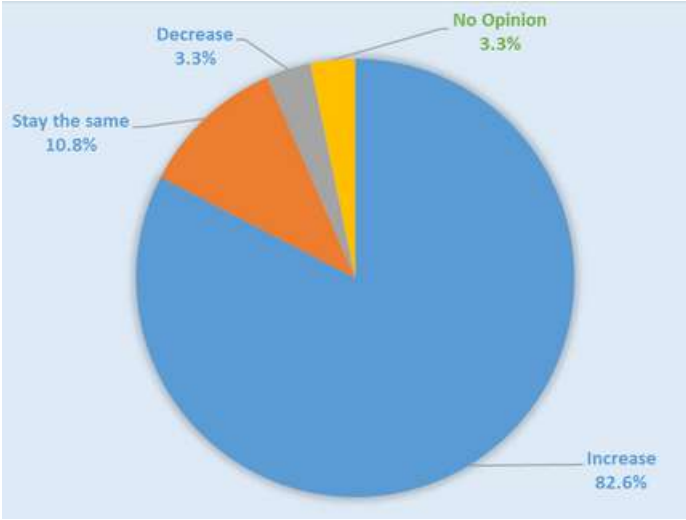
TABLE 9: SATISFACTION WITH TOURISM

TOURISM QUESTIONS						
Satisfaction with tourism	Number of Tourists	Local jobs created by tourism	Tourism promotes local entrepreneurship	Tourism promotes local culture	Tourism promotes local product production	Policies for sustainable use of resource for tourism
72.0	91.0	80.3	71.3	69.6	71.8	68.1

The question with the highest score of 91.0 is, "Compared to pre COVID-19, the number of tourists to the SNPBZ should: increase, stay the same, decrease, or no opinion?" As depicted in Figure 8, this question was answered by 616 people, of whom 82.6% (526) want the number of tourists to increase, 11% (69) want the numbers to stay the same, and 3.3% (21) want numbers to decrease and 3.3% (21) expressed no opinion.

Detailed analysis of responses from individuals wanting visitor numbers to decrease,[41] imply that people with low-income security who do not have rewarding work have negative attitudes towards visitor numbers. An option to address this issue might be the introduction of mentoring or social support programmes designed and introduced by the Municipal government and targeted towards the most vulnerable. Such an approach might build resident trust in local government.

FIGURE 9: COMPARED TO PRE-COVID-19, THE NUMBER OF TOURISTS TO THE SNPBZ SHOULD INCREASE, STAY THE SAME, DECREASE OR NO OPINION?



[41] See accompanying technical report.

5.8 RESPONSES TO LOCALISED QUESTIONS: EDUCATION, HEALTH AND PARK MANAGEMENT

Three survey questions sought to measure satisfaction with the quality of school education, basic health services and SNPBZ management. As illustrated in Table 10, scores for these questions fall in the mid to upper 60s, indicating a degree of satisfaction. While scores for Wards 2 and 5 are in the 70s, scores for Ward 4 are in the 60s, and scores for Wards 3 are in the 50s.

TABLE 10: SATISFACTION WITH SCHOOL EDUCATION, BASIC HEALTH SERVICES AND NATIONAL PARK MANAGEMENT AND TRUST IN LOCAL GOVERNMENT

	Quality of school education	Basic health services	Management of SNPBZ	Trust in local government
ALL KPLRM	66.6	65.3	67.0	59.05
Ward 2	70.7	72.3	73.9	50.2
Ward 3	58.3	54.1	55.3	57.3
Ward 4	66.3	64.1	66.0	67.4
Ward 5	73.4	71.5	72.6	61.3

Interestingly, scores for trust in local government are lower than those for satisfaction with management of SNPBZ, for KPLRM survey takers (44), and in Ward 2 (50.2) and Ward 3 (57.3), whereas, whereas scores for Ward 5 are slightly higher at 61.3 and Ward 4's are close to the same at 67.4. One thing the data suggests is that partnerships between the KPLRM and the SNP may be well received by the community. Such partnerships might include joint applications for funding to improve people's wellbeing and promote greater sustainability in the tourism sector (such as, for example, the settlement land-planning initiative recommended in section 4.3).

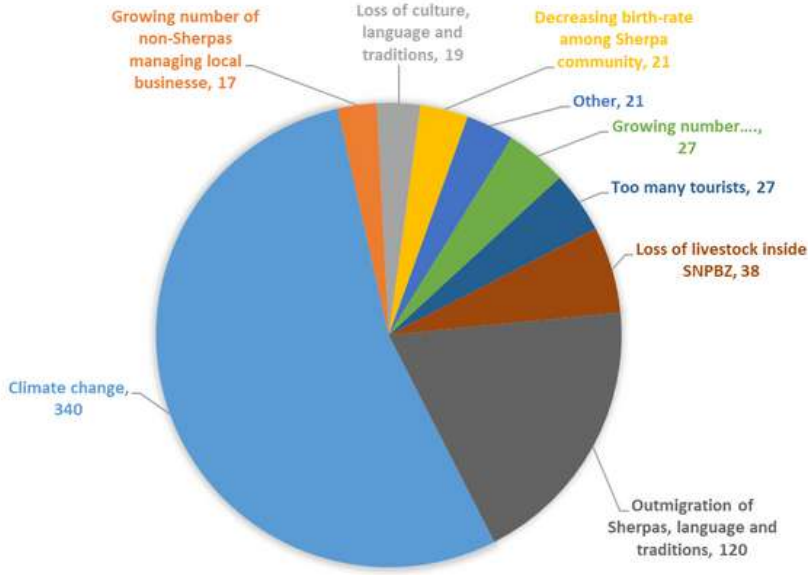
Greenhouses and healthy forests, Ghat

Farming still praticed around an expanding Namche

5.9 RESPONSES TO LOCALISED QUESTIONS: THREATS TO WELLBEING

The survey question asking "What do you feel is the greatest threat to community wellbeing in the SNPBZ" asked respondents to choose one of the eight pre-selected answers illustrated in Figure 9. Of the 628 responses: "Climate Change" was chosen 340 times (54% of responses); Sherpa-related issues were chosen 202 times (32%); "Loss of livestock…" was chosen 38 times (6%); "Too many tourists" was chosen 27 times (4%); and "Other" 21 times (3%).

FIGURE 10: RESPONSES TO THE QUESTION "WHAT DO YOU FEEL IS THE GREATEST THREAT TO COMMUNITY WELLBEING IN THE SNPBZ?"



Responses indicate that while animal husbandry and loss of livestock are priorities for many, efforts to address this issue should be tied to Climate Change action and, as indicated above, cultural heritage initiatives (perhaps with support from "purposeful tourism" interventions). Wider research also suggests agroforestry, rainwater harvesting, and community capacity building programs can help address climate change and restore livestock.[42]

5.10 RESPONSES TO LOCALISED QUESTIONS: CLIMATE CHANGE

TABLE 11: CLIMATE CHANGE CONCERNS

Greatest Climate Change concern	# Responses
Access to Water	5
Agriculture	5
Air pollution	8
Beauty destruction	1
Climate Change	74
Conflict	1
Deforestation	3
Diseases	3
Earthquakes	12
Environmental destruction	18
Floods	24
Forest Fires	2
Garbage Management	7
Glacier and snow melt	21
Growth of capitalism - unsustainability	3
Lack of time to reverse Climate Change	7
Landslides	6
Loss of tourism	1
Loss of wild animals	20
Natural disasters	2
Overpopulation	7
Plastic use	3
Pollution	29
Poverty and displacement	9
Water access	8
Weather Change	44
TOTAL RESPONSES	**332**

The survey included an open field question for respondents to identify their greatest concerns related to Climate Change. Some respondents provided more than one concern. The frequency in which concerns are can indicate resident interest to support and, possibly engage in the design and delivery, of corrective interventions.

Table 11 synthesizes and groups respondent concerns into 27 issues. 63% are environment related. Some concerns, such as Lack of Time to Reverse Climate Change, Weather Change, Glacier and Snow Melt, Over-population, Unsustainable Growth of Capitalism and Diseases require global-scale action. Others, such as Flood Control, Management of Garbage and Plastic, Forest and Environmental Preservation and Restoration, and Wild Animal protection are within the influence and control of communities, government and the private sector, and indicate opportunities for "tourism with a purpose" interventions as highlighted above.

[42] Poudel et al. (2013) Adapting Livestock Production Systems to Climate Change in Nepal: Challenges and Opportunities. Proceedings of the 22nd International Grassland Congress. tinyurl.com/ycypudan

Another implication is that climate change disaster preparedness activities would be beneficial at the individual, community, ward, municipality and national levels. Examples might include: glacial research projects; training for health care workers; preparation for disease control; agricultural adaption programs; and, information and resources to prepare individuals and communities for disaster scenarios.

5.11 RESPONSES TO LOCALISED QUESTIONS: COMMENTS ON TOURISM

Although not included among the five localised questions in Box 6, the survey's tourism section includes an open question asking: "Would you like to make any comments about tourism in your site?" A dominant theme of these responses' centres on the importance of tourism positively impacting the collective wellbeing of communities across the region. One comment succinctly captures this:

> *"While the increase in tourism is beneficial to the community and the economy as a whole, everyone is not equally benefitting. The government and private sector benefit the most while local people - even with employment opportunities - are not benefitting as much. Moreover, only villages that are a tourist spots are benefitting, leaving entire villages at a disadvantage" (slightly edited).*

Tourism policies and actions that protect and increase individual and community wellbeing could include support and incentives for local entrepreneurship, together with targeted regulation and incentives (or disincentives) to guide tourism development toward greater sustainability and community wellbeing. Given ongoing needs for community inclusivity, and to embrace resident sentiment in tourism planning, Box 9 sets out responses that inspire ideas, policies and actions to maintain or improve community wellbeing (comments have been edited for consistency and readability).

BOX 9: RESIDENT SUGGESTIONS FOR TOURISM TO MAINTAIN AND IMPROVE COMMUNITY WELLBEING

"Tourism is one of our most important sectors and it should be promoted, and there should be policies, programs and regulations that ensure steady and secure growth in this sector. Tourism development contributes to our economic and social livelihood. Tourism makes life happier and easier for our people. There are opportunities for growth in domestic tourism as well as international tourism."

"Villages that have not benefited from tourism should be developed for tourism and promoted to attract tourists. When amenities are built, such as airports, they should be built in areas and ways that ensure no village is at a disadvantage."

"All villages in the region have the potential to benefit from tourism and should equally and equitably enjoy the benefits of tourism. Tourism provides employment opportunities for everyone in our region and many other benefits. Policies and programs should be developed and implemented to extract every possible value that tourism offers to benefit of the wellbeing of our people. Another way tourism provides wellbeing benefits occurs when tourists develop relationships with families and become long term sponsors to children."

"Some of the features that help a village to attract tourists, in addition to the wonderful views and quiet nature of a village include well equipped and quality hotels lodges and homestay choices; restaurants with organic and local food; trekking agencies; cultural events such as dances, good internet and access to electricity and a close-by hospital. Some of these features present opportunities to villagers for entrepreneurship so that they directly benefit from tourism. Villages that create impressive visiting areas also attract tourists. To make things easier for tourists, a policy should be adopted for making the prices for hotels, lodges, homestays, and restaurants public so tourists can estimate cost of their trip. Another factor that helps villages attract tourists is when villagers learn how to welcome guests. We can promote our culture by painting stone manis, which makes our villages more attractive and enables tourists to experience our local culture."

"Within villages and between them, as well as into the mountains, it should be a priority to maintain and develop good paths to make it convenient for tourists to walk, as walking – and trekking – is an important part of the value we have to offer tourists. Use of helicopters and other automated ways to access the mountains should be discouraged or limited to emergency use only. There should be more construction of viewpoints and the protection of cultural structures should be a high priority for governmental agencies and communities. Other aspects of our heritage should also be preserved, from traditions to buildings and sites of special significance. At a governmental, community and individual level, we should make every effort for sustainable tourism today. Governmental laws and regulations that support, sustainable tourism that benefits communities, and the protection our culture and heritage should be enforced."

"Some features that are detrimental to the wellbeing of communities and shared benefits from tourism include unhealthy competition among locals, particularly where collaboration for local business development would yield positive results for all, such as through the formation of local village chambers of commerce. When bad-actor tourists visit a village and the lands, the community suffers, but when good tourist visit, the community is better off. Thus there should be clear criteria and expectations for tourists to know how to be a good tourist, and good tourists should be rewarded, such as through acknowledgement and expanded opportunities to engage in the community."

5.12 WHAT MAKES PEOPLE HAPPY?

To conclude this Chapter, Figure 10 depicts responses to a question at the end of the survey asking, "In one word, what makes you happy?" This question received 456 responses. Word clouds provide insights to understand responses with words frequently occurring in larger font, and those occurring least in smaller fonts. As with elsewhere in the world, family is the word that most frequently occurs. The word "family" gained 37% of responses, followed by "money" with 8.7%, and "friends" and "work" each composing 7%. When combined "family" and "friends" made up 44% of responses, while "money" and "work" comprised 16%. When "community" is included with "friends" and "family" the composition increases to 46% and if "business" and "tourism" are included with "work" and "money, the composite increases to 18%. Responses to this question can be used as a compass for policies and actions at the regional, village and individual level. One way to operationalise this compass is to have conversations about how people's wellbeing can be improved in ways that support relationships among friends and family and provide well-compensated work.

FIGURE 11: WHAT MAKES YOU HAPPY WORD CLOUD

Thulo Gomilla's new monastery

Solar trail-lighting, near Thamo.

SPCC's new "Carry Me Back" waste management programme.

Khumbu Climbing Center, Phortse.

Clean streets, Lukla.

6 CONCLUSIONS AND RECOMMENDATIONS

The business-end of tourism development in high profile sites is very dynamic and competitive. Since its inception, tourism growth in and around the SNP has been restricted by access limitations. The site has nevertheless enjoyed steady visitor growth, which has delivered wide-ranging benefits to thousands of households across the Solu-Khumbu and beyond. It has also led to wide-ranging negative impacts and a robust, multi-faceted management response. [43] Few would argue that the majority of Pharak and Khumbu Sherpas have benefited greatly from this tourism and conservation system.

Given the wellbeing outcomes reported above, the notoriety of the site and the extent of Sherpa engagement in almost all aspects of development, this must surely be a model with lessons and approaches to apply elsewhere. Especially so considering key points in the report's introduction alluding to indigenous peoples' being,

(i) underserved and typically excluded from public health, education and governance systems,

(ii) dependent on tourism as a main source of income, and

(iii) responsible for safeguarding 80 percent of the world's remaining biodiversity and ecosystems that are critical to climate change mitigation.

In short, indigenous communities have a fundamental role to play in global sustainability and the tourism industry must act and position itself to respect, celebrate and nourish their cultural and natural assets. Assets upon which, humans collectively depend. Before getting deeper into such arguments, it makes sense to return to the immediate future of the SNP.

Despite impressive successes, as access continues to improve with road building and innovation in air-travel, the Khumbu may yet become a victim of its own success. As with most

[43] Common to other sites the overall management response is evolving. While the aim is to regulate and sustainably manage tourism, the finances required to manage every aspect of the system typically fall short of what is required.

Clear waters, Gokyo

popular tourism sites, with each year that passes outside investors become increasingly active and influential in the tourism economy. This involvement comes with benefits and threats to host-community wellbeing. What will happen to land-prices, fields and accommodation for example, when the road reaches Chaurikharka? How will the region respond to higher visitor growth (and investment interest), especially from the Indian market?

This report has emphasised that a growing number of Pharak and Khumbu households lack access to finance to establish or upgrade accommodation businesses. It has also noted that Economy is the only wellbeing domain where scores are lower than the "all others" average.

Without action to address these trends, it is highly likely they will continue, and deeper challenges will result. Lessons from around the world suggest local people will progressively sell up and move elsewhere. The incidence of locals renting properties out, suggest this trend has already started. It is owing to these and related trends that the industry's global institutions are highlighting the imperative for governments, industry stakeholders and residents to work together to strengthen host community wellbeing.

Three especially acute and enduring negative impacts undermining the sustainability of tourism to the Khumbu and resident wellbeing have been highlighted. The report also concludes that the Planet Happiness ten-step

approach offers a framework for community engagement and inclusive decision-making to help address and manage these issues. Having collected baseline data and undertaken a preliminary analysis of findings, next steps are to

(i) utilise various mediums to share and communicate main findings to Solu-Khumbu residents,

(ii) convene forums and discussion groups to elicit local opinions and suggestions for actions and policies that will foster greater resident and community wellbeing.

This will enable the data collected to date, to be used for evidence-based inclusive decision-making to strengthen the sustainability of the region's tourism system.

Critical to the success of this process (should it be taken forward), is the training and capacity building of a team of local people willing and able to

(i) learn about happiness and wellbeing science, policy and practice,

(ii) assume responsibility for managing future survey iterations,

(iii) engage in wellbeing conversations, forums and planning with community groups, government representatives and wider stakeholders.

This process of investment in social capital will help ensure future generations of Sherpas continue to work with and for the tourism, conservation and wellbeing goals of their community (it might also eliminate frustration towards a tourism system that causes local people to state, "I never want to come here again!").

Returning to the indigenous peoples and climate mitigation imperative, it is noted that having the world's highest mountain in your backyard is a considerable asset. High-profile assets drive visitor growth that enables investment in health, education and governance mechanisms. While this is undoubtedly true, it is emphasised:

Nothing to do but relax and enjoy the view !

I **the warmth and hospitality of the Sherpa people often stimulate additional and highly significant philanthropic investment in these services, and**

II **it is local people and activists linking and building synergies with well-meaning visitors, tour operators and accommodation providers, that typically provides the momentum to take such investments to scale.**

These points are emphasised given growing industry and consumer interest in indigenous tourism, ecotourism, regenerative tourism and more recently conservation tourism. In short, the institutional and financial mechanisms of the Khumbu's tourism and conservation system, with its high emphasis on health, education, waste management, hydroelectricity, water supply, forestry and conservation management, not to mention cultural celebration, provides compelling storylines and lessons for replication. Especially so, given the media-worthy and compelling backdrop of the world's highest mountains and climate change being locally perceived as the greatest threat to resident and community wellbeing.

Following growing industry calls for tourism development to strengthen the wellbeing of host communities, it is noted that at the destination level this can only be done if it is informed by wellbeing data: data that measures the social, environmental and economic make-up of communities, their health conditions as well as community sentiment and aspirations towards tourism and wider development priorities. Only by gathering baseline data and measuring how community wellbeing is affected by tourism over time, can pathways be found and policies designed to direct development in ways that strengthen people's and communities' wellbeing.

This is especially significant as wellbeing and quality of life data is required by governments to enable them to rebuild and deliver transparent, caring and inclusive societies and economies. Following the impacts of COVID-19, psychological, social and economic vulnerability are emerging as pressing issues to manage.

The walk ends, saying goodbyes with xxxx Sherpa.

Hence travel and tourism institutions, businesses and stakeholders can position themselves to call for and actively support the provision of this data, thereby:

(i) elevating the industry's political profile;

(ii) supporting its own regeneration;

(iii) breathing new life into tourism governance systems; and

(iv) placing people, neighbourhood, community & destination wellbeing front and centre, at the heart of destination planning processes.

This report advocates this approach be started with a strong emphasis on the wellbeing of indigenous peoples around the world, upon whom we all depend, and many of us would like to visit.

Ama Dablam towering above Phangboche

BOX 10: CONCLUSIONS AND RECOMMENDATIONS – A SUMMARY

CONCLUSIONS

I *The region's tourism system has evolved with exceptional levels of community engagement in almost all aspects of development and change, which has been instrumental in delivering strong and high levels of community wellbeing.*

II *Three key issues highlighted in Chapter 4 that have caused significant declines in household, community and environmental wellbeing, have occurred largely (but not exclusively) owing to decisions taken by outside investors and decision-makers.*

III *The new road to Chaurikharka will bring far greater visitation, external influence and wide-ranging substantial change to the region's tourism system.*

IV *To minimise risks to household and community wellbeing, there is a need for innovation to*

(a) maintain and expand high-levels of resident engagement and participation in all aspects of the tourism system, and

(b) strengthen evidence-based policymaking.

RECOMMENDATIONS

I *Work should commence on a town plan and zoning system for Chaurikharka and Lukla at least two years before the road reaches Chaurikharka. The plan should be developed through an inclusive participatory approach as recommended herein for the alpine settlements experiencing high-lodge growth. Such plans should also be prepared for Gokyo, Gorak Shep, Lobuche, Pheriche and Dingboche.*

II *The Happiness Index should be deployed annually to: measure individual and community wellbeing; engage residents in conversations and initiatives to strengthen tourism and community wellbeing relationships; and institutionalise evidence-based policymaking.*

III *A summary power-point presentation of the research findings herein should be*

(a) prepared and disseminated through various mediums to Solu-Khumbu residents,

(b) discussed with residents to elicit suggestions for actions and policies that will foster great resident and community wellbeing.

IV *To build social capital and strengthen local governance systems, a small team of around a dozen residents should be trained*

(a) in wellbeing science, policy and practice, and

(b) to work with the Municipality to manage and institutionalise recommendations (ii) and (iii) above.

V *Given the exceptional practices of this tourism system to date, and the global notoriety and significance of the site, multiple narratives and opportunities should be designed to transfer lessons to other sites around the world. Especially those that involve indigenous peoples managing ecosystems critical to climate change mitigation and the avoidance of widespread socio-political and economic collapse.*

ANNEX I

Planet Happiness is a tourism and big data project of the Happiness Alliance. Our mission is to focus the attention of all tourism stakeholders on the wellbeing agenda and use tourism as a vehicle for development that demonstrably strengthens destination sustainability and the quality of life of host communities. The project provides a narrative for the industry's billions of stakeholders to comprehend and engage with the happiness, wellbeing, and quality of life agenda, and to move our measure of progress and development Beyond GDP, with its narrow emphasis upon economic metrics. Our mission and approach to supporting destination wellbeing, is recognised by, the World Economic Forum, WTTC, UNWTO and GSTC.

The Planet Happiness framework:

- measures the wellbeing and quality of life of residents living in World Heritage sites and beyond;
- helps destinations advance their competitive edge through more inclusive, more responsible and more purposeful tourism planning;
- uses the on-line, state-of-the-art Happiness Index survey that:
  - is based on Bhutan's pioneering approach to measuring Gross National Happiness;
  - is an OECD recognised and scientifically valid, comprehensive tool providing a direct experience of how well-being is measured;
  - is available in 24 languages and counting;
  - enables and assists destinations to measure movement towards the UN SDGs.

The Happiness Index measures individual and community wellbeing across 12 domains including tourism, which measure satisfaction with the way tourism is developing. The questions are centred around the way tourism is included in the UN SDGs.

Each destination receives a unique URL allowing questions to be added to localise the survey. Questions can be added to engage stakeholders in discussions, steps and decision-making to reduce the destination's carbon footprint, or focus upon resident-wildlife conflict issues, for example.

Working with our destination partners we analyse data to produce one-page destination scorecards and in-depth data-rich reports, sparking conversations about tourism and destination wellbeing and how this relationship can be measured and strengthened. A 2.5-minute video introducing our work, is here.

TEN-STEP APPROACH

The image below illustrates the alignment of our wellbeing domains with the UN SDGs. Building on this alignment we have developed a ten-step approach that enables destinations, notably their residents as well as wider stakeholders, to engage with sustainability narratives and measure movement towards the UN SDGs.

Looking ahead, with greater destination take-up, we will introduce wellbeing benchmarking and competitive rankings between destinations, or between administrative areas within a destination. Thus, ensuring greater destination focus upon the UN SDGs and measurement criteria.

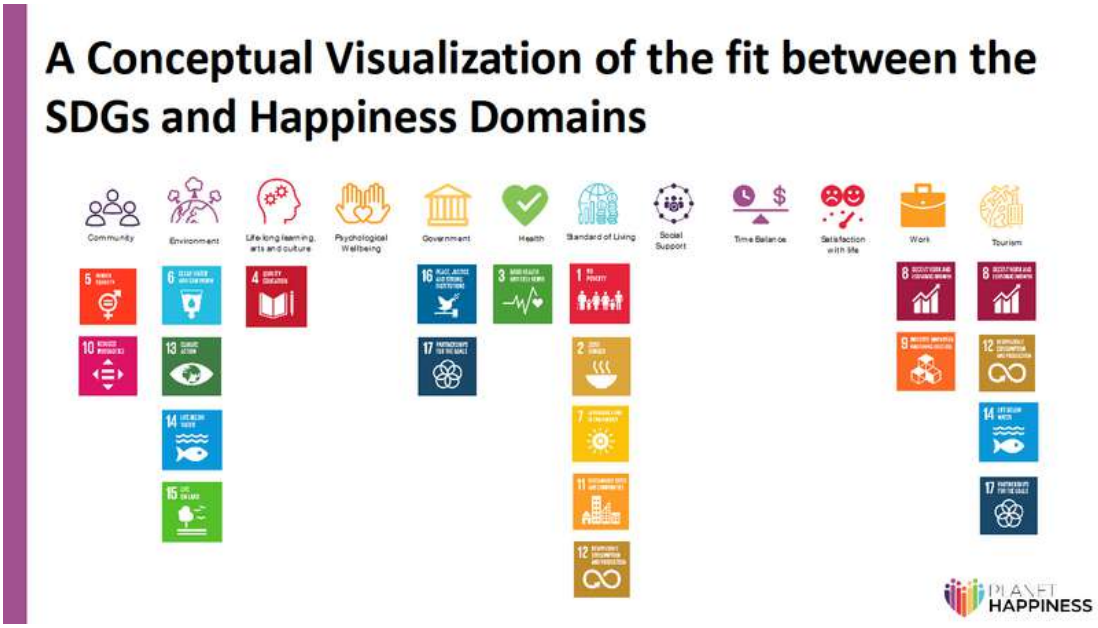
Our ten-step process, also illustrated below, follows an intuitive and engaging convenience sampling approach. We build local capacity to manage the process by delivering as much, or as little, backstopping support as may be needed. Our support is provided on-line, or on-site as preferred by our clients. Further details of the ten-step process including a short video of the process, are located on the HOW PAGE of our website,

DESTINATION COMMITMENT

We work with our clients to

(i) develop a shared understanding of destination issues,

(ii) design an action plan to deploy the Happiness Index survey among their target community, and

(iii) enhance destination wellbeing. We invite our clients to commit to the following actions.

1. Appoint a Project Manager.
2. Mobilize human and financial resources for destination activities.
3. Assemble a local Planet Happiness Team to engage key stakeholders.
4. Formulate and implement Planet Happiness ten-step work-plans.
5. Maintain regular contact with Planet Happiness.