

Developmental Success and the Sustainability Challenge in a Mountain Region: Case of Himachal Pradesh in India

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Abstract

Himachal Pradesh (HP) is one of the most progressive mountain states in India that has transformed regional development perspective in the country. HP performs better than several Indian states which score high on socio-economic indicators despite its harsh climatic condition. In recent times, however, HP is witnessing a slowdown in several sectors because of its traditional development approach leading to high fiscal deficit. This study aims to identify factors which promote or restrict sustainable development in HP using expert interview and discussion. Results show that, current sustainability challenges in HP require innovation and home-grown policies. Recommendations have been made on critical issues which can enable HP to redesign its development trajectory while maintaining its traditional hill culture and environmental leadership. The findings of this study are expected to add new dimensions and highlight emerging sustainability issues in mountain regions. This will aid policymakers, national and sub-national governments in India, countries in the Hindu Kush Himalayan region and elsewhere in the world, which can benefit from HP's dynamic story of development and realign or replan their development strategies for a sustainable future.

Keywords: Sustainable Mountain Development, Regional Development, Governance, Hindu Kush Himalaya, India, Himachal Pradesh

1. Introduction

Mountains cover nearly one-fourth of the world's land area, 13 per cent of human population, and many people indirectly depend on them for livelihood as these provide water, electricity,

forest resources; and serve as popular tourist, cultural, religious, biodiversity centres (Odermatt, 2004; Schild & Sharma, 2011; FAO, 2015). Chapter 13 of the Agenda 21 emphasizes mountain environments as crucial for the Sustainable Development Goals (SDGs) and for the survival of global ecosystems (FAO, 2011). The development of the hill and mountain regions has often been poor because of inaccessible habitation, poor infrastructures, extreme vulnerability to natural calamity, climate change, and distinctive gender dimensions (Price and Kim, 1999; FAO, 2011; Barah, 2011; Kreautzmann, 2013; Gioli et al., 2019).

According to researchers and institutions, the sustainable development of mountains and hill regions requires a distinct treatment than the mainland areas (GoHP, 1975; Price and Kim, 1999; North-East Hill Council, 2008; FAO, 2011). Jodha et al. (1992) calls mountain conditions which distinguish them from other areas as ‘mountain specificities’ which is characterised by two main components: constraints and opportunities for development and poverty alleviation. The constraints include factors such as inaccessibility, fragility, and marginality; and the later component covers factors such as diversity, comparative advantage, and adaptation experiences (Jodha, 2005). According to Indira Gandhi, the former Prime Minister of India:

If it is all possible to arrange development programmes in such a way that the people of the hills have the benefit of development without taking away the serenity and harmony which exists there ... it would be an experiment which could be of value not only to all of us living in the plains, but I think to all the world. (GoHP 1975, p. VII)

Kreautzmann (2013) and Bhatta et al. (2019) find past mountain development perspectives in the Hindu Kush Himalaya (HKH) region unable to capture existing ‘socio-economic’ and ‘biophysical changes’ calling for modernizing current practices. The Indian Mountain and Hill (IMH) state of Himachal Pradesh in the HKH region (see Figure 1) presents a unique case of development story in India which witnessed a revolution in social infrastructure in the 1990s, emerged as one of the most progressing states comparable to more developed states of Kerala (KL) and Tamil Nadu (TN) on several essential services and social infrastructure (Drèze and Sen 2002, 2012). But, recently the state is witnessing a slowdown in its core sectors resulting in weak fiscal condition leading to weak basic service delivery and deteriorating quality of life (Sanan, 2008; Das et al., 2015; Negi, 2018).

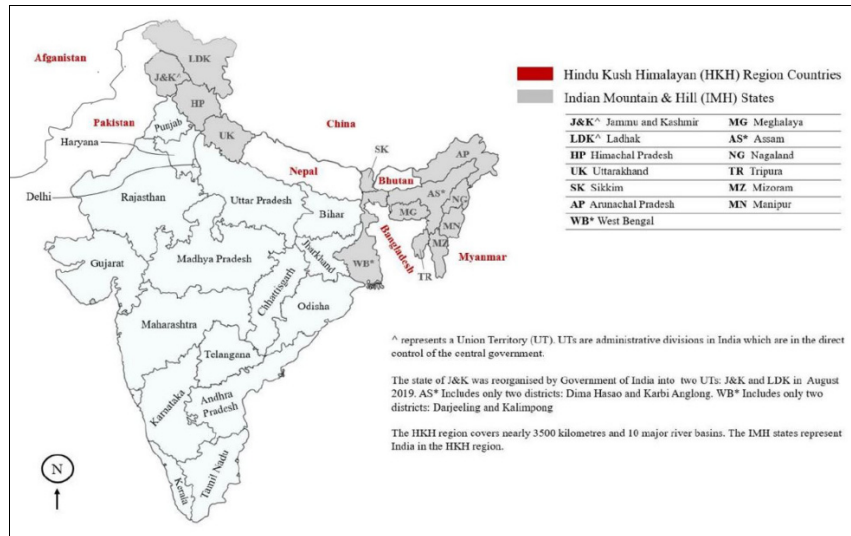


Figure 1. IMH States Among the HKH Region Countries

Source: Author's compilation using <https://mapchart.net>

Given this varying development discourse and duality, this article aims to identify critical factors for success (SFs) and failure (FFs) which affect sustainable development in Himachal Pradesh with help of interview and discussion with experts. This article also adds to limited literature (Sanan, 2008; Das et al. 2015) on Himachal Pradesh particularly dealing with development or sustainable development. This study brings value in the sense that it captures essence of these studies, discusses some of the critical and emerging sustainability issues in HP, and recommends possible solutions which can allow the hill state to redesign its development trajectory innovatively leading to sustainable development while maintaining its old age hill culture, traditions, and environmental stewardship.

Another encouragement behind this work is the 'Development model of Himachal Pradesh' which did not get enough attention from researchers and institutions despite its high performance in several areas of human development as compared to the top state - Kerala in India (discussed later). The World Bank calls mountain state of Himachal Pradesh as India's 'little known success story' (<https://www.worldbank.org/en/news/feature/2015/01/28/himachal-pradesh-secrets-of-success>).

The findings of this study are expected to give new perspectives and insights to policymaker, national and sub-national governments in India, countries in the HKH region and elsewhere in the world which can benefit from Himachal's story of development, its successes, and learn from its local problems and issues which may undermine future sustainability of a mountain state or region.

2. Developmental Characteristics in the IMH States

India is home to 28 states and 9 Union Territories (UTs) which face a diverse set of

socio-economic, cultural, and ecological issues, simultaneously also offering good practices and local solutions for global challenges and objectives such as achieving the Sustainable Development Goals – SDGs (Khalid et al., 2020). Table 1 shows some of the recent socio-economic indicators for the IMH states along with the major (Note 1) states in India.

Table 1 Select Socio-Economic Indicators at Sub-national Level in India (Source: Author's own compilation)

State/ UT	Popula tion below povert y line, % (2011) ^a	GNI per capita '000 US\$, 2011 PPP (2018) ^b	Litera cy rate, % (2011) ^a	Sex Ratio (2011) ^a	Life expectan cy at birth in years (2017) ^b	% Marrie d women engage d in HH decisio ns (2019) ^c	SC and ST populatio n, % of total (2011) ^a	Unemp loymen t rate, % (2017- 18) ^d	Touris m direct ed GVA in state GVA, % (2015) ^e
Andhra Pradesh	9.20	8.16	67.00	993	69.84	84.1	16.41, 7.00	4.50	2.29
Bihar	33.74	3.29	61.80	918	68.54	86.5	15.91, 1.28	7.00	2.96
Chhattisgarh	39.93	5.18	70.30	991	67.12	92.7	12.82, 30.62	3.30	2.13
Delhi	9.91	15.4	86.20	868	72.30	92.0	16.75, 00.00	9.40	4.32
Gujarat	16.63	10.37	78.00	919	70.53	92.2	6.74, 14.75	4.80	1.78
Haryana	11.16	13.17	75.60	879	71.16	87.5	20.17, 00.00	8.40	1.95
Jharkhand	36.96	4.00	66.40	948	68.72	91.0	12.08, 26.21	7.50	2.10
Karnataka	20.91	8.56	75.40	973	72.44	82.7	17.15, 6.95	4.80	2.63
Kerala	7.05	14.87	94.10	1084	75.91	94.1	9.10, 1.45	11.4	4.34
Madhya Pradesh	31.65	5.13	69.30	931	67.39	86.0	15.62,21. 09	4.30	2.39
Maharashtra	17.65	9.07	82.30	929	72.54	89.8	11.81, 9.35	4.80	3.08
Odisha	32.59	4.32	72.90	979	68.84	90.2	17.13, 22.85	7.10	2.43
Punjab	8.26	15.47	75.80	895	71.73	91.4	31.94, 0.00	7.70	1.90
Rajasthan	14.41	7.20	66.10	928	69.32	87.7	17.83,13. 48	5.00	2.73
Telangana	9.20	8.92	67.00	993	70.67	87.2	NA	7.60	2.29
Tamil Nadu	11.28	9.43	80.10	996	73.27	92.8	20.01, 1.10	7.50	2.59
Uttar Pradesh	29.43	4.72	67.70	912	65.84	87.6	20.70, 0.57	6.20	2.24
Arunachal	34.67	7.72	65.40	938	71.85	87.0	0.00,	5.90	1.21

Pradesh									68.79
Assam	31.98	4.36	72.20	958	68.62	92.1	7.15, 12.45	8.10	2.19
Himachal Pradesh	8.06	13.24	82.80	972	71.22	93.9	25.19, 5.71	5.50	3.20
Jammu & Kashmir*	10.35	10.14	67.20	889	71.57	81.6	7.38, 11.91	5.30	3.68
Manipur	36.89	6.06	79.20	992	72.78	94.8	3.41, 40.88	11.60	2.38
Meghalaya	11.87	6.32	74.40	989	70.98	92.3	0.58, 86.15	1.50	2.39
Mizoram	20.4	12.27	91.30	976	69.33	98.8	0.11, 94.43	10.10	1.25
Nagaland	18.88	7.56	79.60	931	71.83	99.2	0.00, 86.48	21.40	1.87
Sikkim	8.19	12.30	81.40	890	72.94	89.7	4.63, 33.80	3.50	2.12
Tripura	14.05	5.18	87.20	960	72.21	90.9	17.83, 31.76	6.80	1.53
Uttarakhand	11.26	9.12	78.80	963	69.81	91.0	18.76, 2.89	7.60	2.29
West Bengal	19.98	5.52	76.30	950	71.49	88.9	23.51, 5.80	4.70	2.09
India	21.92	6.82	73.00	943	69.42	88.7	16.63, 8.63	6.10	2.62

Notes: HH – House Holds, SC – Scheduled Caste, ST – Scheduled Tribe, GVA – Gross Value Addition. State names in bold in column 1

represent the IMH states. Himachal Pradesh, Uttarakhand, and West Bengal are also among the major states.

a Census 2011, Government of India (GOI)

b Sub-national Human Development Index, Global Data Lab, Radboud University.

c National Family and Health Survey – V (2019-20), IIPS 2021

d Periodic Labour Force Survey 2017-18, Ministry of Statistics and Programme Implementation (MOSPI), GOI

e Economic Survey 2019-20, Volume II, Ministry of Finance, GOI

* Data for Ladakh UT is included in J&K (except for % of women engaged in HH decisions) because of non-availability of data. For Ladakh, this figure stands at 80.4%

Table 1 shows that Himachal Pradesh and Sikkim represent a more transformative development pattern in recent times compared to major states (e.g. KL and TN) in India in terms of indicators like population below poverty line, married women engaged in household decisions, high population of marginal communities among others. On the other hand, IMH states like Assam, Arunachal Pradesh continue to remain laggard and stand below the national

average on several socio-economic indicators such as population below poverty line, literacy rates and GNI per capita.

The difference in growth and development factors in the IMH states or HKH regions in general may be attributed to several factors such as varying needs, cultural requirements, attachment to ecosystem services (Bawa et al., 2008; FAO, 2011; Sandhu and Sandhu, 2015); difference in factors of poverty and environmental linkages (Adams et al., 2004; Hunzai et al., 2011; Sandhu and Sandhu, 2015; Gioli et al., 2019); difference in resource endowments – land, soil, water, energy, mineral resources, climate etc. (Banskota, 2000; Stijns, 2005; Rasul, 2014; Gioli et al., 2019); or varying policy, demography, governance system, institutional and investment environment, leadership, and political will (Rodrik et al., 2004; Strange and Bayley, 2008; Matthew, 2012; Wang Y et al., 2019).

2.1 Study Area Background: Physical Characteristics and Developmental Pattern

Himachal Pradesh is one of the major mountain states of India situated in Northern part of the country sharing borders with several Indian states and China (see Figure 2). The state was a centrally administered union territory in 1948 and became a full-fledged state on 25 January 1971 (Attri, 2006). The state covers an area of 55,673 square kilometres which is majorly rural (~90%) and is organised into 12 districts, 78 developmental blocks, 3432 gram panchayats with two municipal corporations: Shimla and Dharamshala, and has 55 urban local bodies (GoHP, 2019). The state has a diverse flora and fauna and geo-climatic conditions, with densely populated districts in the South and South-West to typically snow-covered mountains and cold deserts in the Northern region covering Chamba, Lahaul & Spiti and some parts of Kinnaur (Attri, 2006).

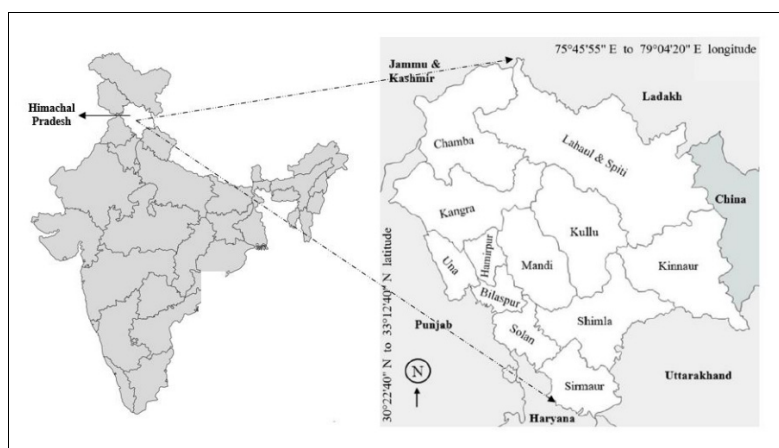


Figure 2. District map of Himachal Pradesh with bordering Indian states and China

Source: Author's compilation using <https://mapchart.net>

HP today serves as a benchmark for several states in India because of its high performance on different development indices. According to Census 2011 figures, it has high literacy rate -

82.80%, high sex ratio - 972, high per capita income (~INR 130067), 100% electrified villages and women work participation ratio of more than 80%, large number of public schools and health institutions. HP outpaces top state (Kerala) on human development in India in several areas such as women empowerment: HP rank 1, KL rank 2 (Bansal, 2017), water management: HP rank 4, KL rank 12 (NITI Aayog, 2017-18), ease of doing business: HP rank 16, KL rank 21 (Dept. of Industrial Policy and Promotion 2016-17), good governance: HP rank 3, KL rank 8 (Department of Administrative Reforms and Public Grievance 2019), and environmental performance: HP rank 3, KL rank 15 (Chandrasekharan et al., 2013). Some of the main reasons behind these successes may be attributed to high social cohesion and inclusion, good leadership, attention to ecology, large participation of women in workforce and big stress on infrastructure and social programmes, particularly on education and healthcare (Sanan, 2008; Das et al., 2015).

Despite witnessing a great development phase for several decades, HP now observes a slowdown effect in several sectors which has led to worsening fiscal condition (Das et al., 2015; Negi, 2018), rise in number of unskilled people, limited employment opportunities (Tiwari, 2008; Das et al., 2015), deteriorating quality and basic service delivery in core sectors such as health, education, tourism, hydro, and agriculture (Sanan, 2008). New research and experts also warn of increasing regional disparities and inequalities that exist in several districts and regions in the state but often get dismal attention in government policy documents and plans (Ramaul and Ramaul, 2016; GoHP, 2019; Anand and Thampi, 2021).

3. Methodology

Figure 3 shows the schematic diagram of methodology followed in this study. The factors of success (SFs) and failure (FFs) which affect sustainable development or sustainability in Himachal Pradesh were identified using secondary literature as a base, substantiated, and finalised based on interview and discussion with experts based in Shimla, capital of HP. The final output of this exercise resulted in list of success and failure factors of development in HP. In addition, experts provided some unique insights and stories on development issue in HP along with suggestions to improve future sustainability in the hilly state.

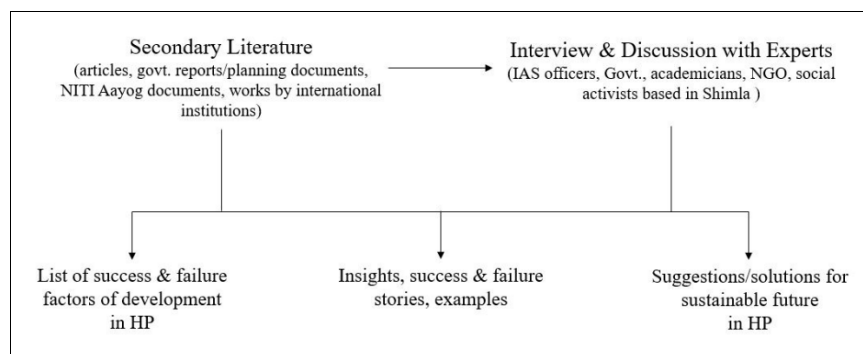


Figure 3. Methodological Approach of the Study

Around 30 experts were identified for the detailed interview in Shimla, HP. The experts included academicians, Indian Administrative Officers (IAS), economic advisors and senior officers associated with Government of Himachal Pradesh, GoHP (including retired); social activists, NGO representatives who are working or have worked on development issues including SDG aspects in Himachal Pradesh. The selection criteria for the experts included both education and experience – a PhD degree or a Masters’ degree and a minimum of 15 years in academic research, industry, or policy advocacy and implementation.

Because of the initiation of COVID situation across India in end of February 2020, following institutional and national COVID protocols, the author curtailed down his travel plan to 15 days, mid to end February 2020. Shimla was specifically chosen as it was the capital and most of the government departments, directorates and centres, secretariat had offices there. Further, many premier institutions such as Himachal Institute of Public Administration (HIPA), Indian Institute of Advanced Studies (IIAS), Himachal Pradesh University (HPU), Indira Gandhi Medical College (IGMC), leading NGOs and social activists and their offices are based in Shimla. Correspondence was made with the experts one month earlier to the visit through emails and telephone to confirm their participation. To meet one of the experts, the author also travelled to district Solan in HP. Table 2 shows the group diversity of the experts. Additionally, brief discussions were held with four other experts associated with climate change, energy, agriculture, and tourism departments of HP in Shimla.

Table 2 Group diversity of the participating experts

No. of Participants	15
Duration of interview and discussion	Up to 90 mins
Indian Administrative Service officer (IAS)	4
Academician/researcher/development expert	6
NGO representatives	3
Social Activists	2
Minimum experience (years)	15

During the interview, the experts were re-briefed about the work and purpose of the visit in detail. Then the author revolved the discussion around the sustainability and development issues in HP over the years. This also included their opinion on success and failure factors of development in the state. During the discussion, experts were encouraged to share their experiences enriched with examples and popular incidences. In addition to this, experts were asked to suggest solutions in crucial areas and sectors in HP that may undermine its future sustainability. As a fair and simple criterion, success and failure factors which garnered at-least 60% of all the expert’s vote share were finalised. During the interview process, the author took notes manually and one-third of the experts permitted audio recording. The audio recordings further strengthened the compilation (Khalid et al., 2021). The whole discussion was designed based on broad development themes and the terms ‘sustainable development’, ‘development’; ‘mountain’ and ‘hill’ have been interchangeably used in this study for simple conversation.

4. Results and Discussion

The interview and discussion with experts finally resulted in 11 success factors promoting sustainable development in HP (Table 3) and 10 failure factors that are restricting sustainable development in HP (Table 4). These factors were agreed by all the 15 experts and met the minimum vote share criteria.

4.1 Success Factors Promoting Sustainable Development in HP

Majority of the experts think developmental success in HP should be credited to the visionary and leadership role played by early Chief Ministers (CMs) of the state, particularly the first CM, Dr. YS Parmar, also known as Himachal Nirmata – the creator of Himachal Pradesh. He had laid strong emphasis on road, infrastructure, literacy, healthcare, and agriculture since early 60s. Even after Parmar, till 1990s, the priorities and leadership have remained intact, and the government service delivery has remained efficient (Attri, 2006). This may be attributed to large government enterprises and a small private sector. Additionally, important role was played by dedicated bureaucrats, particularly, officers of the Indian Administrative Services (IAS) (Sanan, 2008; Das et al., 2015). Smaller administrative units headed by these IAS officers had been the key to efficient service delivery as they were accessible, had high community feeling and took ownership.

Table 3 Experts vote share for success factors promoting sustainable development in HP

No.	Success Factors (SFs) agreed by experts	Expert vote share (%)	Relevant supporting literature
1	Social cohesion	100	Goyal (2000), Sanan (2004), Sanan (2008), Vaid et al. (2011), Das et al. (2015), Guha (2015), Vyas (2017), GoHP (2019)
2	Social inclusion	93.33	Goyal (2000), Sanan (2004), Sanan (2008), Das et al. (2015), Guha et al. (2016), Tripathy and Tanwar (2017), Vyas (2017), GoHP (2019)
3	Basic education (primary and secondary)	93.33	Narain (2004), Sanan (2008), Ryhal and Punam (2009), Mangla (2014), Guha (2015), Das et al. (2015), Vyas (2017), GoHP (2019)
4	Women empowerment	86.67	Ryhal & Punam (2009), Vaid et al. (2011), Guha (2015), Das et al. (2015), Guha et al. (2016)
5	Strong local institutions	86.67	Sanwal (1983), Mangla (2014), Guha et al. (2016), GoHP (2019), NITI Aayog (2019)
6	Tourism	86.67	Das et al. (2015), Guha et al. (2016), GoHP (2019)
7	Infrastructure development	80.00	Sanan (2004), Sanan (2008), Ryhal and Punam (2009), Das et al. (2015), Guha et al. (2016), Tripathy and Tanwar (2017), GoHP (2019)
8	Hydropower development	80.00	Rousseau (2014), Das et al. (2015), Sharma and Kuniyal (2016), Hussain et al. (2019)
9	Agriculture and horticulture	73.33	Sanan (2008), CRGGS (2015), Das et al. (2015), GoHP (2019)
10	Policy and Planning	66.67	Gulati and Gupta (2003), Sanan (2008), Das et al. (2015), GoHP (2019)
11	Traditional knowledge and indigenous culture	60.00	Lal and Verma (2008), Banerjee and Fareedi (2009), Das et al. (2015), Luharia and Sharma (2019)

Another important factor in the HP development model are the people themselves. According to majority of the experts, Himachalis (local term for people of HP) are simple, honest, and content. For people of HP, peace and joy are more important and defining factors as compared to income levels or government jobs. Further, Himachalis are highly aware, socially cohesive people because of good literacy and harsh climatic conditions and difficult terrain. According to few experts, people in HP seek information for their rights, question and complain about authorities and in several cases, have even tracked attendance of government officials. Experts are of the opinion that strong Land Reforms and Ceiling Acts in HP have been instrumental in providing high inclusion in the society. Today everyone has land ownership irrespective of their caste. Himachal Pradesh has nearly one-fourth population comprising SCs in the state, second highest in the country after Punjab (see Table 1). Further, a well-defined caste structure leads to strong inclusion in HP and the stratum ensures that there is no huge dissent and dissatisfaction among the people.

Other key aspect to HP development model is its basic education and health infrastructure. Primary and secondary schools can be found every 2-3 Kms in the state. This had led to a large rise in literacy rates, particularly that of females. According to one of the experts, better female literacy resulted in better health outcomes as women understood importance of good health and hygiene and ensured that their female child was educated and healthy. Similarly, in the health sector, important role has been played by the Primary Health Clinics (PHCs); Anganwadi and Accredited Social Health Activist (ASHA) workers (Note 2) who took care

of immunization drives, better nutritional care of pregnant women and lactating mothers. They have ensured the actual success of health programs in the state despite low remunerations and are present even in the far-flung areas. According to experts, women voices, and leadership in Panchayats (Note 3), Mahila Mandals (Note 4) in the villages is very strong in HP. Women in Mahila Mandals have lead charge against liquor sale and ending marriage norms in the state. In one of the villages in Lahul and Spiti, women folk helped conserve the endangered Himalayan Ibex through their traditional techniques. According to one of the experts, 57 per cent panchayat heads in HP are women and 90 per cent contribution to agricultural output is women led.

Tourism and hydropower traditionally have been HP's two of the most potential sectors bringing revenue, employment, supporting local livelihood, and investment to the state. Experts think that HP is not only bestowed with scenic beauty but is also known for its religious and cultural importance. HP is popularly known as 'Dev Bhoomi' – Abode of the Gods. In expert's opinion, because of the hydro projects, HP was able to provide one of the cheapest electricity in India and complete electricity coverage to the remotest rural locations. This directly benefitted the environment and helped immensely in forest conservation efforts of the state government.

One of the experts thinks that HP's development story should be looked in different periods such as post-independence period up to 1990s and the period after 2000 to understand the basic model. Post-independence, HP witnessed a state sponsored era of development. 1980s saw 100 per cent electricity in the state, good health infra with primary health clinics in every panchayat or block, primary schools within every 2-3 kilometres, one of the strongest land-reforms in the country (https://himachal.nic.in/index1.php?lang=1&dpt_id=13&level=0&linkid=418&lid=750), good road infrastructure in hill areas, high rate of employment in government sector despite being a non-industrialised state. This is also the reason that HP despite being rural economy with sparsely populated regions, is ahead of most rural parts in the country on basic amenities and infrastructure. Wherever governments were weak in any region post-independence period in sponsoring development such as states of Uttar Pradesh, Bihar; the situation in those regions is still problematic. According to Rasul and Sharma (2014), poor growth in such states is also result of 'myriad of social, economic, and political factors rooted in structural, historical and macro-economic policies of state' coupled with low financial assistance received from the centre over the years. Thus, experts think that state sponsored development is crucial to a region's development model and forms the base, which has been a strong point in case of Himachal Pradesh. In addition to this, special category status, positive backing from the centre and good stimulus by the state government to even remotest locations further accelerated the development pace.

Other crucial aspect related to HP development model has been a stable political environment with a majorly bi-party arrangement. The two major parties: Indian National Congress (INC) and the Bhartiya Janata Party (BJP) have alternatively held power and completed their respective five-year tenures in most cases. According to one of the experts, the state had strong political stability in the last four to five decades. In addition, few experts also feel that

the communist movement had a strong influence in the state.

4.2 Failure Factors Restricting Sustainable Development in HP

According to experts, political leaders and government are still routed to the traditional ‘Parmar development model’ which has matured. The future sustainability of the state calls for innovation and homegrown policies. In several sectors, a ‘plateauing effect’ is being observed by experts. There is a rise in class of people who are not interested in labour and agricultural works, have low ambitions as their basic needs are met. This has impacted policy and planning. One of the experts remarked ‘full potential of locals is not realised; this is a big failure on part of government’. Patronage and favouritism are further deteriorating the institutional accountability and service delivery in the state. One-third of the experts feel, ‘there is a general tendency among politicians, that if employees are safe, then it is good for elections and their vote bank’. This leads to favours over government transfers and job appointments. Further, the fiscal and revenue deficit in the state continues to rise and is one of the highest in the country. The estimated revenue and fiscal deficit over the period 2018-19 were 2.1 per cent and 5.2 per cent of the state GDP (GoHP, 2019). This figure was higher than the sustainable levels: zero revenue deficit and fiscal deficit below 3 per cent or maximum of 3.5% in relaxed cases, recommended by the 14th Finance Commission of India.

Table 4 Experts vote share for failure factors restricting sustainable development in HP

No.	Failure Factors (FFs) agreed by experts	Expert vote share (%)	Relevant supporting literature
1	Difficult terrain and topography	100	Sanwal (1983), Sanan (2008), Das et al. (2015), GoHP (2019)
2	Weak fiscal condition	93.33	Sanan (2008), Das et al. (2015), GoHP (2019), Negi (2018)
3	Patronage and favouritism in govt. jobs and transfers	93.33	Sanan (2008), Das et al. (2015)
4	Inadequate human resource with required skills	93.33	Sanan (2008), CRGGS (2015), Das et al. (2015), GoHP (2019), NITI (2018)
5	Limited employment opportunities	86.67	Sanwal (1983), Tiwary (2008), Das et al. (2015)
6	Weak environmental management	80.00	Bingeman et al. (2004), CRGGS (2015), Asher & Bhandari (2018), GoHP (2019), NITI Aayog (2018)
7	Non-uniform rural development	73.33	Sanan (2008), Ramaul & Ramaul (2016), GoHP (2019)
8	Low private investment/partnerships	73.33	Sanwal (1983), Sanan (2008), Das et al. (2015), PhD Chamber (2017), GoHP (2019)
9	Unsatisfactory agricultural and horticulture diversification	66.67	Sanwal (1983), Tiwary (2008), Das et al. (2015)
10	Malnutrition	66.67	Das et al. (2015), GoHP (2019)

Experts feel that the state has only four seats in the parliament and thus has low influence on the centre. One of the experts feels, initially, political leaders and bureaucracy had a clearly defined role. However, now there is a feeling that the government is overpowering bureaucracy leading to weak executive, justice, and institutional powers. Another expert finds no difference between policies of the ruling party or the opponents as both are promoting privatization of basic sectors such as education and health, making them unaffordable for the masses.

Basic and primary schools are in urgent need of qualified and well-trained teachers. As a result, there is a large shift towards private schools in HP. According to one of the estimates by education department, nearly 45 per cent of the students in HP go to private schools. Further, people are not very ambitious, they do not want to go out. Students do not have enough exposure neither there exists a 'pressure group'. Even the universities have not kept pace and contributed significantly in the development of the state, despite the fact they are centres of regional innovation and collaboration (Fonesca, 2019) and better equipped to handle local issues and challenges. According to one of the experts, 'In 1970s, HP university was sixth best in India, today it does not even feature in top 100 universities in India'. Another expert narrates that Barog Panchayat in Solan has three higher educational institutions, but their contribution to development of the region is unsatisfactory. In view of another expert, Dehradun, the capital city in the neighbouring state of Uttarakhand has emerged as an educational hub in India, but HP failed to develop similar educational hub despite the state being ranked far ahead on development factors compared to its neighbour.

Majority of the experts feel that despite crucial role played by women in HP in areas of health, hygiene, agriculture, education, and nutrition; their efforts have not been truly rewarded. According to Chopra (2019) large participation rate by women is a 'flawed metric of women empowerment' as it completely excludes aspects such as women's lived experiences, particularly unpaid domestic duties. Other area of concern for the experts is the independence of women Panchayat heads. For example, in several cases of women elected head, opportunity to lead are hijacked by men and actual decisions are taken by Pradhan-Patis (Note 5).

The state is not able to attract high end tourists (particularly foreigners) because of poor infrastructure, transport, communication, and connectivity. For example, a trip from New Delhi to Shimla by road typically takes 10-14 hours by road. There is no direct train from New Delhi to Shimla and the air connectivity is often irregular. These aspects have compelled high end tourists to go to overseas tourist destinations in the same budget such as Malaysia, Indonesia, Thailand, Singapore, Dubai that saves time, have high air connectivity, provide large hotel options at a reasonable rate (Gambhir et al., 2021). Several experts are of the view that tourism in HP is restricted to historically renowned places such as Shimla, Kullu, Manali, Kufri and Kasauli; and it is unable to engage tourists by giving them a comprehensive tourism and leisure experience. Further, the concept of 'tourist circuits' and 'tourist precincts' around major destinations as proposed by Badar and Bahadure (2020) for Shimla city is in general missing in state tourism development plans and policies. Further, experts also find aspects such as local livelihood, government regulation and environmental concerns to be

weakly handled in the existing tourism development policy of the state. Another critical area concerns insufficient attention by policymakers on the ‘image’ build-up of HP, what Cleave et al. (2016) call ‘place branding’, a crucial part of regional and local economic strategy to attract business investment.

Few experts think that rising economic growth, worsening environmental conditions are affecting local livelihood and ecological systems in the state. This is also result of faulty or inadequate policies related to sustainable forestry accounting, farmer’s right, demarcation of industrial clusters, utilization of local resources such as woods, stones, mud etc. in construction, pollution control measures, ecological footprint assessment. Several experts are of the opinion that hydropower installed capacity in HP is peaking. Further, poor planning and development is damaging the ecology and the river ecosystems in areas of Chamba, Kinnaur, Lahul and Spiti. Cases of change in water temperature, cracks in walls and rise in air pollution due to blasting activities, disruption in common pool resources affecting local livelihood have also been reported for several hydro projects in Himachal Pradesh (Hussain et al., 2019; Kuniyal et al., 2019).

Customs and traditions continue to be an issue in several rural parts of the state. According to one of the experts, casteism is strictly prevalent in districts such as Kinnaur, Kullu, Lahul and Spiti. As per narration of one of the experts, during the National Family and Health Survey (NFHS) IV and V in Kullu district, data collection required routine medical tests for females. Because of deity in the house, elders in several households did not allowed these tests to be conducted inside the houses as this would anger God or displease Him or Her. It was a big challenge for the administration and the survey team to convince the elders of the family that survey rounds cannot change the sample household as this would undermine the accuracy and reliability of the health surveys.

Greater attention is needed on industrialization, developing entrepreneurship spirit and promotion of local produce and industries. What Vladoš et al. (2019) call ‘moving from traditional regional analysis to the dynamics of local development’. Its key component may focus on areas such as production and reproduction of local innovation dynamics, inherent conflicting local social characteristics, political dimension, local business systems and clusters, structurally reproduced inequality, and bottom-up development.

Experts also feel that people in HP favour employment over entrepreneurship. Further, industrialization and entrepreneurship are not promoted effectively. Apart from this, there is a need for strong regulatory policy mechanism to deal with sick units in HP such as state milk cooperative. There is a need for innovation and performance appraisal-based system. According to Fonseca (2019), with regards to innovation, it is crucial for less developed regions ‘to consider the institutional, cultural and inherently social dimensions supporting it’ instead of just focusing on infrastructure and economic factors.

Mobility within the state has increased despite low migration. Globalization has impacted youth mindsets. Younger generation has started getting detached from agriculture more and more and started to shift to urban centres in search of better opportunities. However, according to Bhatta et al. (2019), there may be other factors responsible for this, such as

population growth, food insecurity and increasing income inequality. One of the experts warns that increasing cases of rural credit in future may lead to cases of suicides in HP. In recent times,

there has also been a rise in student dropout rates in HP. School dropout rates among the boys belonging to SC, ST and backward classes have increased owing to disparity in educational opportunity, poverty and supporting domestic and occupational work of family (http://www.edumis.hp.gov.in/Application/uploadDocuments/plugin/doc20160525_174154.pdf). One of the experts thinks there is possible relationship between these drop out numbers and the increasing juvenile crimes (thefts, rapes, and drug cases) in the state.

Infrastructure maintenance in the state has also deteriorated. According to one of the experts, it is common to see malfunctioning and poorly maintained sanitary, roads, water services. Utilization of funds in several panchayats have been reported to be poor. The per capita consumption of vegetables, pulses and fruits have drastically reduced in the state leading to increased malnutrition cases among women and children.

Another expert thinks that ‘data driven indexes and rankings are divorced from reality’. Regions and cities cannot be just about infrastructure; parameters of plains cannot be applied to hill regions. For example, Shimla – the capital city topped the Government of India’s Ease of Living Index 2019 competing with 114 cities (<https://amplifi.mohua.gov.in/eol-landing>) and SDG Urban Index 2021 competing with 56 urban centres (<https://sdgindiaindex.niti.gov.in/urban/#!/ranking>) across India. Despite these facts, the truth also remains that Shimla city faced severe water shortage in 2018 and experts warn that this crunch may continue in future. Further, the region is witnessing rapid rise in population which is posing threat to its limited resources. It is essential that policymakers, experts, and urban planners give serious thoughts to these critical aspects, else time is not far away when the region will become synonymous with examples of urban planning disasters such as those of Bengaluru city and Mumbai.

In addition to this, several experts suggest taking care of uneven rural development in HP and aim for holistic rural modernization that takes care of values of various interest groups, preserves, and promotes traditional culture and indigenous knowledge. Otherwise, there are fair chances that such rural debates can have potential adverse impacts on individuals, communities, and regions (Lee et al. 2021) and can get intensified because of presence of multiple interest groups and institutions such as ‘class, caste and gender’ in rural India (Banerjee, 2015), HP being no exception.

4.3 Policy Direction to Fastrack Future Sustainability in HP

Experts suggest that future sustainability in HP requires specific attention and policy intervention towards crucial sectors and areas such as basic education, basic healthcare, tourism, hydropower development, deteriorating fiscal condition, agriculture and horticulture, employment generation and skill development, and strengthening the panchayat system. They also laud some of the recent programmes of the government of HP (Figure 4) and pitch for similar innovation and approach across all the sectors.

4.3.1 Basic Education System

HP is witnessing deteriorating teaching quality and lack of skilled teachers in government schools. Further, there are also cases of vacant teaching posts in several districts. This has resulted in large scale migration of students to private schools. According to Singh (2018), there are 5718 government schools (primary and secondary) in the state with 20 or less students and in several schools, there are no teachers for many years because of unfilled vacancies. Few experts comment that, ‘we just cannot boast on the input indicators that our students do not have to go even 2-3 kms. It is also important to know whether those who reside in these areas go to the government schools and are satisfied with the quality of education and the existing infrastructure’.

Experts suggest considering the population to school ratio while planning new schools to utilise government resources efficiently. Employing skilled and talented teachers is crucial for better outputs and controlling high migration to private schools. Some experts also suggest introduction of educational vouchers. This can be supported by introducing innovative pedagogical tools in classrooms, regular audit and performance appraisal of government schools, its teachers and introduction of different skill courses and training programs. For skill development, one of the experts feels that during summers local governments should invite talented teachers from other parts of the country giving them free lodging and food facility. They can teach different courses including short term skill development. This is an attractive model that requires minimal investment with good output. Such models are popular in European countries such Germany and Sweden who attract top talents globally including India.

<p>Mukhya Mantri Sewa Sankalp Helpline</p> <ul style="list-style-type: none">• CM service pledge helpline• Toll free number (1100) for complain regarding service or govt. department• Realtime online message based complain resolution system (7-14 days)• In case of lapse, action on officials by higher authorities <p>Himachal Grihani Suvidha Yojna</p> <ul style="list-style-type: none">• Security for LPG and Gas stoves by GoHP to families not covered under the ‘Ujjawala Yojana’ of central govt.• First state in India to provide this facility to households <p>Himachal Healthcare Scheme (HIMCARE)</p> <ul style="list-style-type: none">• Cashless treatment coverage up to INR Five Lacs/year/household by GoHP to families not covered under the ‘Ayushman Bharat’ scheme of central govt. <p>Mukhyamantri Swavalamban Yojana</p> <ul style="list-style-type: none">• CM’s self-reliance programme for youths• Promoting self-employment and livelihood among youths (18-45 Yrs.) by encouraging local entrepreneurship <p>Jan Manch – On Spot Public Grievances Program</p> <ul style="list-style-type: none">• Public meetings presided by ministers and local officials• New and upcoming meeting announcement through CM website and local newspaper in all the districts

Figure 4. Recent Key Flagship Programmes and Initiatives of Government of Himachal Pradesh

Source: Government of Himachal Pradesh.

4.3.2 Basic Healthcare System

The basic healthcare infrastructure in HP is facing large human resource crunch. There is unavailability of specialists and inadequate medical infrastructure exists in the far flung and rural areas of HP. Experts suggest ramping up the infrastructure and advanced treatment facilities in all district government hospitals, modernising primary health clinics (PHCs) and recruiting more healthcare professionals (doctors, nurses, pharmacists etc.) on full time basis, particularly the Anganwadi and ASHA workers. In addition to this, few experts suggest introduction of small fee on hospital registration and utilization of services such as X-ray, operation etc. to generate extra revenue to improve the existing infrastructure of government hospitals. In views of one of the experts, apart from centre's AYUSHMAN BHARAT (Note 6) and state's HIMCARE beneficiaries (see Figure 4), a fee can be charged to remaining people – middle or high-income people, provided they avail government health facility. Experts think there will always be group of people willing to avail government facilities at a cheaper rate given adequate service quality and infrastructure is provided. Similar approach and progressive billing can also be planned in the electricity and water supply services. Further, introducing telemedicine facility across the state with mandatory short-term posting of specialist doctors on rotation basis can significantly enhance healthcare services in the far flung rural areas of HP.

4.3.3 Tourism

Tourism sector in HP is unable to attract high end tourists because of poor planning, inadequate infrastructure, existence of traditional destinations, less avenues, and activities for tourism engagement. Because of unbalanced tourist inflows exceeding carrying capacity there is rising environmental pressure resulting in air and water pollution coupled with inadequate waste management. Experts feel that there is an urgent need to develop new destinations and improve connectivity by road and air, enhance tourist experience by means of adventure sports, rural home stays, orchard visits etc. Huge potential lies in developing regions such as Rewalsar Lake, Parashar Lake, Kaza, Rohru, Chander Nahan blessed with extra-ordinary natural beauty, mountains, valleys, and river ecosystems and often mentioned by tourists and travel enthusiasts. In addition, mobility should not just be limited to constructing flyovers, bridges and widening roads. It should also consider introducing well connected cycling tracks and pedestrian pavements at all major centres considering traffic and safety measures. Further, skill development and training of local tourist operators and professionals, quality audit and certification of services, increased government partnership and property ownership in tourism sector can bring a large transformation in the tourism sector of HP.

Few experts are of the opinion that innovations such as charging 'tourism tax' or 'leisure fee' for better services and management, performing a comprehensive carrying capacity exercise for various ecological sensitive areas of the state can significantly improve HP's image as a mountain leader and environmentally responsible tourism hub. According to Featherstone (2019), at least forty countries around the world charge a tourism tax in some manner to mitigate the effect of over tourism. For example, Bhutan, our neighbour and key member of

the Indian Himalayan Region has recently introduced a ‘sustainable development fee’ for regional and foreign tourists under its new tourism policy (Haider, 2020). Such a tax or tourism fee has also been suggested by Gambhir et al. (2021) to promote sustainable development in IMH states of Uttarakhand and Himachal Pradesh.

4.3.4 Hydropower

There is a rise in ecological disasters and climate change events in the state which have affected local livelihood. Further, shortage and reduced water levels have been observed in recent years in HP. This has compelled HP to purchase electricity from other states in summer season. Experts feel that HP should think of investing and diverting a part of earning from the hydropower sector towards renewable energy sources such as solar PV and solar water heating systems as the state is blessed with good solar resource potential. Additionally, investment in electric vehicles segment will be a smart move as it can benefit from the local cheap hydroelectricity for charging. The existing fuel stations, bus stands and popular markets should be equipped with EV charging facilities. Further, improving confidence of local stakeholders and addressing their livelihood concerns including those of tribal people, providing training and skill development programmes coupled with entrepreneurship promotion will further boost development in the sector and the concerned project areas.

4.3.5 Weak Fiscal Condition

Over the last decade, HP is witnessing rising fiscal and revenue deficit because of increased loan, poor tax collection, weak regulation, and disbursement of salary to the one of the largest government employee bases in the country. Experts advocate strong fiscal management at each level, alternate and innovative revenue generation policies, strategic tourism planning, effective handling of demand and supply in hydro sector, better accountability of transport tax, sales tax, and fund utilization. Further, policies should aim at increasing rural incomes and expanding job opportunities in the state. There is also an urgent need to introspect the bad performing enterprises in the state. For example, the state milk market is dominated by companies such as Verka (Punjab), Vita (Haryana), Reliance, among others. State’s own firm Himachal Pradesh State Cooperative Milk remains at the bottom position. There is need to assess such poor performing units and think about their modernization and revival. Further, introduction of new taxes such as water tax in hydro sector, leisure tax or tourism tax has immense potential for improving fiscal sustainability in the state.

4.3.6 Agriculture and Horticulture

Experts are of the view that agriculture and horticulture sector in-general suffer from inadequate supply-chain infrastructure and weak marketing strategy in HP. There is low mechanization and agricultural diversification in the state. In recent times, disinterest of youths in the agricultural sector has increased in HP because of small land holdings and greater attraction towards urban life. Further, there is an atmosphere of lacking entrepreneurship spirit, unbalanced rural development coupled with faulty policies and old regulations. For example, the uniform ‘spraying policy’ in the state needs to be changed. According to experts, it should be based on the local soil and climatic conditions and should

meet appropriate standards conducive to food grains, fruits, or vegetable nutrient requirements. Such categorizations are common in countries such as Canada and USA.

Experts suggest holistic policymaking aimed at increasing entrepreneurship support and training, increasing productivity of crops in sustainable fashion, and offering better support prices and development of customized professional courses to attract youths in the sector. Food processing and horticulture products such as apple products, honey, herbs, and flowers have high scope in HP. According to experts, supply chain model of vegetable growers and floriculturists in Solan, Mandi are well developed. They are highly self-reliant. Overnight, vegetables and flowers are reaching National Capital Region and other parts of the state. One of the experts feels that, behind this overnight transportation success, important role has been played by the storage facilities and minitrucks or carrier jeep which are very effective for the hilly terrain. A great step would be to give some subsidy on these vehicles and promote such innovative model for different parts of the state.

4.3.7 Limited Employment Opportunities and Unskilled Human Resource

According to experts, employment opportunities in HP have decreased over the years because of cash crunch and low hiring in government sectors. Further, skilled and talented people are not part of the system or government jobs in general, leading to mediocrity and dismal performance and output. This has resulted in large shortage of workers in different sectors and rise in temporary recruitments which are not sustainable. According to a Member of Legislative Assembly (MLA) from Theog town in Shimla, 65 per cent of the posts of medical lab attendants, lab assistants and operation theatre assistants are lying vacant, while in the irrigation department, there is a 90 per cent shortage of assistant engineers. There is a 67 per cent shortage of nursing staff and 32 per cent shortage of doctors in the primary health centres of rural areas in HP among many other sectors (The Indian Express, 2020).

Experts think that despite good basic education and literacy rates, skill development programmes and vocational studies have not been sufficiently developed in the state resulting in large mismatch between state potential and suitable human resource availability in different sectors. If there are other opportunities than those traditionally popular, then possibly people might think of acquiring more skills. For example, most of the people are employed in the health or education sector in the roles of primary school teachers, nurses and staff in health clinics or hospitals. So, skill level acquired is of this level only. There is an urgent need to develop skill development programmes and vocational education in colleges and schools in rural areas where adults often lack adequate skills, training opportunities for alternate employment. According to few experts, the prevailing weak fiscal condition in the state will further limit future government jobs in the state and the only feasible option would be to improve services and provide adequate training and skill development programmes along with a comprehensive audit of demand and supply of skilled human and technical resources in the state.

4.3.8 Panchayat System

Experts feel that Panchayats in HP suffer from weak leadership and elected heads and

members are often incompetent to perform all the administrative duties and responsibilities of Panchayats. Further, there are increased corruption cases, non-utilization of funds. For many experts this may be attributed to non-competency of the elected person, low human resource capacity and training, and the existing women reservation and caste rotation quota system in the state. Most of the experts suggest that there is an immediate need of guidance or facilitator by government which provides support to women heads in taking independent decision and provide legal action against people creating problems. In addition to this, experts suggest capacity building and mandatory training of the elected members, provision of skilled resource persons to support the head, regular audit of the fund utilization in the panchayats.

5. Conclusion

This article discussed the sustainable development perspective in Himachal Pradesh, an IMH state and one of the most progressive states in India. Factors which affect the success promoting sustainable development and those which restrict sustainable development in HP were investigated with help of interviews and discussion with experts.

The study identified 11 success factors and 10 failure factors that affect sustainable development in HP. It was found that HP worked on its development model from scratch and witnessed a strong state sponsored era of development till 1990s in areas such as primary education, rural healthcare, strong land reforms, good road infrastructure among many others. The initial success was backed by strong political leadership in early years, and dedicated bureaucrats, strong social cohesion and inclusion, a stable bi-party system, high women labour force participation and good employment opportunities in the government sector. However, inadequate policy attention and reliance on old development approach resulted in a stagnant growth and worsening fiscal condition resulting in rise in number of unskilled people, limited employment opportunities, deteriorating quality and basic service delivery in core sectors of the state such as health, education, tourism, hydro, and agriculture.

To deal with the above issues, experts suggest continuous innovation and home-grown policies, instead of blindly following the traditional system. This involves greater accountability and efficient service delivery that discourages favouritism, rewards performers, develops new avenues of alternate revenue generation and revives fund utilization. It is also recommended that government of HP conducts an audit of demand and supply of human and technical resources in different sectors to design focused policies aimed at handling unemployment and skill gap in the state. Hydropower and Tourism sectors in the state need special attention as they offer one of the highest potentials to solve long-term fiscal sustainability in HP. The future of HP depends on the path that the state government and its people chose for themselves. It's development will also be impacted by how the COVID Pandemic changes its course over time and how it is managed. This will require appropriate and effective policy making. Despite these circumstances, Himachal Pradesh's story of development stands out as a unique case of an IMH state that offers new perspectives and insights to policymaker, national and sub-national governments in India, countries in the HKH region and elsewhere in the world to understand the changing development dynamics

and emerging local issues of a mountain state or region that may undermine its future sustainability.

6. Limitations and Future Studies

The main limitation of the study was restricted travel and limited appointments for interview because of COVID Pandemic which may have otherwise increased number of experts and enriched the discussion and output further. One of the future studies may consider covering experts from larger number of districts across HP considering the geographical representation. However, such a study will be highly resource intensive (time, human resource, and money) given tough terrain, cold climate and several inaccessible regions or districts like Lahaul and Spiti, Kinnaur, Chamba, Kangra among others. Such a study should be undertaken by institutions such as Government of Himachal Pradesh, NITI Aayog or as a consortium of various elite government institutions or research universities in HP: IIT Mandi, IIM Sirmaur, HP University, GB Pant Institute of Himalayan Environment & Development, Indian Institute of Advanced Studies among others. Another potential study may look at impact of COVID 19 Pandemic on the developmental pathway or future sustainability in Himachal Pradesh.

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Notes

Note 1. According to Khalid et al. (2020), the major states comprise ~98% of India's population and contribute to ~96% of India's GDP.

Note 2. Aanganwadi and ASHA workers act as a medium between health system and rural communities in India. They help women in areas such as child education, institutional deliveries and support them during antenatal check-ups etc.

Note 3. Panchayat or Gram Panchayat is a formal local governance system in India at the village level where a head is elected and is known by names of 'Sarpanch' or 'Pradhan'.

Note 4. These are women social groups who are effective communicators and channels of information present in rural areas of HP.

Note 5. Pradhan Pati or Sarpanch Pati implies a rule by husband or elder male family member of the elected women head of the Panchayat. It is a common practise reported across rural India.

Note 6. Ayushman Bharat is a national health initiative launched by the Prime Minister of India Shri Narendra Modi as part of the National Health Policy in 2017 with a vision to achieve Universal Health Coverage (UHC). It has two components: first aims at providing financial health protection to rural and deprived beneficiaries (~50 crore beneficiaries) with a benefit covering INR 500,000/family/year. Second aims at establishing nearly 1,50,000 health and wellness centres across the country providing primary healthcare.

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