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# Challenges to Leave No One Behind in Nepal for Achieving Sustainable Development Goals

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Padma Prasad Khatiwada, Daya Raj Subedi, Yogendra B. Gurung, Meeta Sainju Pradhan, and Prajal Pradhan

### **Contents**

Introduction	2
Methodological Approach	4
Methodological Framework	
Data Sources	9
Measuring Progress on LNOB Indicators for the SDG	10
Results	11
Identifying the Population That Is Furthest Behind in Nepal	11
Progress in Leaving No One Behind for the Nepal SDG	16
Gaps and Challenges	24
Varying Levels of Understanding and Capacity for SDG Implementation and	
Monitoring	24
Resources Crunch	25
Lack of Quality and Reliable Data	25
The COVID-19 Pandemic and Its Adverse Effects	
Conclusions	27
References	28

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### **Abstract**

Leave No One Behind (LNOB) is a core tenet of the 2030 Agenda for Sustainable Development. It is an endeavor to reach those groups of people who are the "furthest behind" concerning all the 17 Sustainable Development Goals (SDG). Nepal has been at the forefront of its commitment to SDGs. While numerous challenges exist, there have also been opportunities to identify and better understand why different groups have been left behind. In this context, the authors examine Nepal's overall progress in addressing the core principle of LNOB and its challenges in reaching those furthest behind the first. For this, existing literature and disaggregated data were analyzed. The findings highlight that women among the gender, rural areas among the place of residence, and mountain and Tarai among the ecological zones are left behind in Nepal. Out of the seven provinces, four provinces are left behind in one of the indicators. Overall, Nepal is making slow progress in achieving SDGs regarding LNOB. Mainly, there is a significant process for SDG 1, 7, 8, 10, and 15, a moderate process for SDG 4, 6. and 12, a slow progress for SDG 2, 3, 5, 16 and 17, and a regress for SDG 9 and 11. The authors also identify four gaps and challenges affecting the achievement of SDGs and hindering the progress on LNOB. They are varying levels of understanding and capacity for SDG implementation and monitoring, resource crunch, lack of quality and reliable data, and the COVID-19 pandemic adverse effects. If Nepal wishes to achieve and rescue SDGs, leaving no one behind, it could address these gaps and challenges.

# Keywords

COVID-19 pandemic  $\cdot$  Dimensions of exclusion  $\cdot$  Indicators  $\cdot$  Leave No One Behind  $\cdot$  SDG progress and Sustainable Development Goals

# Introduction

The 2030 Agenda for Sustainable Development aims to transform our world by ending poverty, protecting the planet, and improving lives. While striving so, it pledges to "Leave No One Behind" (LNOB), reaching the furthest behind first. Meeting this pledge would leverage overall SDG achievements (Warchold et al. 2020). LNOB includes improving the lives of those historically, socially, economically, and politically marginalized and vulnerable groups, such as the poor, women, girls, gender and sexual minorities, marginalized and minority castes, ethnicities, racial groups, elderly persons, persons with disabilities, and indigenous communities, and eliminating all forms of extreme human discrimination and suffering (UN 2016). The 2030 Agenda, consisting of 17 Sustainable Development Goals (SDG) and 169 targets, represents a unique opportunity to promote human rights, equality, and wellbeing. The critical component of the 2030 Agenda acknowledges the individual's dignity. The goals and targets should be met for all nations, people, and segments of society. Thus, leaving no one behind requires identifying and

prioritizing the needs of marginalized, discriminated, impoverished, and vulnerable populations.

Nepal is one of the countries at the forefront of committing to achieving SDGs. Nepal sets up institutional mechanisms for SDG implementation, including national and provincial-level steering committees and a parliamentary committee on sustainable development and good governance. Nepal's National Planning Commission (NPC), the coordinating agency for SDGs, has conducted a status assessment of SDGs (NPC 2021), followed by a costing analysis (NPC 2018). It also carefully investigated the SDG alignment with the national multiyear planning processes (NPC 2020a). So far, two voluntary national reviews have been conducted (see NPC 2017a, 2020b). The Government of Nepal (GoN) has integrated the principle of LNOB into its institutional setup at the highest level. The 2015 Constitution of Nepal ensures greater inclusion in the political, economic, and social spheres. In line with the SDG commitment, the 15th Five-Year Plan has been prepared considering SDGs (NPC 2020c).

Despite these efforts and commitments, Nepal faces various challenges in achieving SDGs. The country started slowly implementing SDGs after recovering from the devastating Nepal earthquake in 2015. According to the post-disaster needs assessment of NPC (2015), this earthquake resulted in 9000 human casualties, over 22,000 injuries, and around 900,000 buildings entirely or partially damaged. Moreover, the post-disaster needs assessment estimated that the earthquake caused infrastructure damages of about US\$ 7 billion. The same year, Nepal faced a second humanitarian crisis due to an unofficial border closure for 4.5 months created by India, affecting the import of essential goods.

In 2015, Nepal transitioned to a new system of governance with the promulgation of the new Constitution, with three tiers of government (Fig. 1). This transition has still not been fully completed yet. There are gaps in some legislations, and human resources, especially at the local government levels. All seven provinces and



Fig. 1 Geopolitical map of Nepal with provincial and district boundaries

753 local governments still do not have systems to implement, monitor, and report on SDGs. This lack of a system is another challenge, including the capacity to collect and analyze disaggregated data. Since 2020, the COVID-19 pandemic has posed severe challenges in achieving SDGs, mainly concerning LNOB. The pandemic has had multiple and disproportionate effects on the social and economic sphere of Nepali society (Pradhan et al. 2021). It has exacerbated social inequalities, injustices, and discrimination, particularly gender, caste, ethnicity, class, and regional disparities. Considering the intersections of gender with class, disabilities, social identities, or even regional inequality, women and girls across all categories have had to bear the brunt of the pandemic's impact and the ongoing discrimination based on their gendered roles.

Given these circumstances, this chapter examines Nepal's overall progress on LNOB in achieving SDGs, assesses underlying challenges, and proposes steps to move forward. This chapter consists of five sections; the first section highlights the context in Nepal. The second section presents a methodological approach to identify and determine communities that fall "furthest behind." The third section highlights indicator-based progress on SDGs obtained concerning LNOB. The fourth section discusses the challenges in this effort, and the final section presents the conclusions.

# **Methodological Approach**

The authors used two methods to prepare this chapter. Firstly, an in-depth literature review of key publications and a review of secondary data from multiple sources were conducted to examine Nepal's overall progress on LNOB in achieving SDGs. Secondly, the authors analyzed recently collected data – the "state of social inclusion in Nepal: caste, ethnicity and gender" often referred as Nepal Social Inclusion Survey 2018 (NSIS 2018) by Gurung et al. 2020 – disaggregated by gender, caste, and ethnicity in Nepal to look into a few SDG indicators.

# **Methodological Framework**

Social inclusion and exclusion are often used as obverse terms or binary opposites. But they are not exclusive terms or conditions, and an element of dualism is embedded within the concepts. There can be multiple exclusion conditions and simultaneous inclusion and exclusion where individuals or groups can be included in one domain while excluded in another (Jackson 1999). Thus, it is helpful to have a framework to examine the status and conditions of exclusion. The authors apply the UNDP (2018) framework of five dimensions of exclusion to identify and determine the extent of those who have fallen behind the most. The framework focuses on five critical dimensions of exclusion, namely: (i) social discrimination, (ii) spatial disadvantages, (iii) socioeconomic status, (iv) governance, and (v) shocks and fragility. These dimensions are highly relevant to the context of Nepal. There is high diversity

in economic conditions, social identities, and geography. Exclusion and disasters could affect people and groups based on their location.

These five dimensions focus on several exclusion "symptoms" – unequal access to resources, unequal participation, and denial of opportunity – and "areas" of exclusion (UN 2016; UNDP 2018). These symptoms inform the level of exclusion in a given aspect, and the dimensions inform the area where the exclusion occurs. Following this notion, the symptoms are the indicators of three dimensions – socioeconomic status, governance, and shocks and fragility. The remaining two dimensions are the areas in which the basic level of exclusion varies, including various social and spatial identities. Accordingly, the extent of "furthest behind" is measured in terms of symptoms of exclusion such as socioeconomic status, governance, and shocks and fragility based on social and spatial identity such as gender, caste and ethnicity, and residence locations (see Table 1).

The two main issues while applying this framework in the Nepali context were considered. First, the dimensional indicators must be measurable that closely represent the normative behavior and practices among the Nepali population. Second, the indicators must be simple to compute through available data at national and subnational levels.

A careful review of multiple data sources was conducted, particularly from the perspective of disaggregation based on the five different dimensions of exclusion, to identify those groups left furthest behind. The authors identified 46 indicators for which disaggregated data was available to measure and track those left furthest behind in Nepal (see Table 2). Among them, 21 indicators were for socioeconomic status, 15 for governance, and 10 for shocks and fragility. The Nepal Social Inclusion Survey (NSIS) 2018 (Gurung et al. 2020) was the source for 30 of 36 socioeconomic and governance indicators. These indicators were disaggregated by gender and caste/ ethnic groups. The remaining six indicators were disaggregated by gender, rural/

Table 1 A framework for multiple dimensions of exclusion and definitions of the dimensions

Dimensions of	
exclusion	Definitions
I. Social discrimination	Exclusion based on identity: gender, caste, ethnicity, age, class, disability, sexual orientation, religion, nationality, indigenous, and migratory status
II. Spatial disadvantage	Exclusion due to location, remoteness, intra-country poverty traps, disparities between rural and urban areas, geographically disadvantaged areas, and physically deprived spaces
III. Socioeconomic status	Disadvantages in terms of income, life expectancy, and educational attainment; limited employment opportunities; and workers excluded, totally or partially, from three basic markets: labor, credit, and insurance
IV. Governance	Exclusion due to ineffective, unjust, unaccountable, or unresponsive laws, policies, and institutions; lack of voice and participation (including informal and traditional governing systems); and limited citizenship
V. Shocks and fragility	Vulnerable to setbacks due to the impacts of climate change, natural hazards, violence, conflict, displacement, health emergencies, economic downturns, price, or other internal and external economic and other shocks

Source: UNSDG (2022) and UNDP (2018)

 Table 2
 List of indicators by dimensions and subdimensions of exclusion

Dimensions/	Targets/Indicators associated with the	
Subdimensions	Indicators	SDG
1. Socioeconomi	c status (19 indicators)	
Demography	<ol> <li>Working age population</li> <li>Child marriage</li> <li>People with disability</li> </ol>	5.3
Education	4. Children aged 36–59 months attending childhood education	4.2
	5. Population aged 6–25 years currently attending school/college	4.2
	6. Proficiency in Nepali language	4.1.1
Health	7. Infant and child mortality (per 1000 live births)	3.1
	8. Pregnant women who were attended once by skilled health personnel	3.1
	9. Women with postnatal health checkup within 2 days of delivery	3.1.1
	10. Households within 30 minutes of walk to nearest health services	3.8
Economic	11. Employment	8.5
opportunity	12. Households involved in casual labor as main occupation	8.2
	13. Persons who have an account in financial institutions	8.2.10, 5.a
	14. Incidence of multidimensional poverty (MPI)	1.2
	15. Average annual household consumption expenditure	2.1
Women's	16. Women's ownership of house	5.a
empowerment	17. Women' ownership of land	5.a
	18. Women aged 15–49 who usually make decisions in household matters	16.1
	19. Gender-based violence	16.a, 5.2
Discrimination	20. Denial of opportunity on labor and production	10.3
	21. Discriminatory behavior in institutional services	16.h
2. Governance (	15 indicators)	
Rule of law	22. Knowledge on affirmative action in education, health care, and government employment	16.3
	23. Knowledge on civil and political rights	4.7
	24. Knowledge on function of local governments	16.6
Participation	25. Participation in meetings/discussions in community development activities	16.8
	26. Participation in local organizations for local development work	16.6
	27. Participation in voting for last local, provincial, and federal elections	16.10

(continued)

Table 2 (continued)

Dimensions/ Subdimensions			
Representation	28. Inclusion of women, Dalits, endangered communities, and disabled persons	16.1	
	29. Knowledge on 33% seats reservation for women in provincial and national parliaments	5.1.1	
	30. Knowledge on representation of Dalits, minorities, and disabled persons	16.b	
Accountability	31. Trust in local government bodies (mayor, deputy Mayor, ward chair, and all ward members)	16.3	
	32. Government offices and officials are not accountable to their duty	16.3.1	
	33. Government office staff are not responsive when people go for required services	16.3.1	
Transparency	34. Access to information in local government offices	16.6	
	35. Aware of decision-making process of local government offices	16.7.2	
	36. Local government budget and expenditure publicly available	16.6.1	
3. Shocks and fragility	10 indicators	10 and 16	
	37. The 2015 Earthquake	11.b	
	38. Floods and landslides	11.b	
	39. Drought	11.b	
	40. Fire, hail, and lighting	11.b	
	41. Pests, plant diseases, and postharvest loss	12.1	
	42. Livestock loss	12.3	
	43. Riots, blockades, fuel shortages, and unexpected higher prices	12.c	
	44. Deaths in family	3.2	
	45. Disease and injury	3.3	
	46. Incidence of COVID-19	3b	

Source: NPC (2022), Table 1.2, pp.5-6

urban residence, ecological zones, and provinces. Indicators related to fragility and shocks were only available at the district level.

Another issue is presenting the disaggregated data, especially regarding caste, ethnicity, and regional dimensions. Though there is limited universality in disaggregation categories used even within the government system in Nepal, several academic and research studies have classified the 125 different caste and ethnic groups (based on the 2011 Census) based on religion and region, as presented in Table 3. The source for this table is the NSIS 2018 study report, where data was collected and analyzed from 88 different caste and ethnic groups (Gurung et al. 2020). Table 3 explains how the numerous caste and ethnicities in the country have been

**Table 3** Nepal's main caste and ethnic groups with regional divisions

	11 Main			
3 Major social groups	social groups	88 groups included in NSIS 2018	40 groups not included in NSIS 2018	
Hindu caste groups (59.4%)	Hill Brahmin (12.2%)	Hill Brahmin [1]		
	Hill Chhetri (19.1%)	Chhetri, Thakuri, and Sanyasi/Dashami [3]		
	Madhesi Brahmin/ Chhetri (0.8%)	Brahmin, Kayastha, and Rajput [3]	Nurang [1]	
	Madhesi other caste (14.5%)	Badhae/Kamar*, Baniya/ Kathabaniya, Baraee, Bin/Binda, Bhediyar/Gaderi, Hajam/Thakur, Haluwai, Kahar, Kalwar, Kanu, Kewat, Koiri/Kushwaha, Kumhar, Kurmi, Lodha, Lohar, Mali, Mallah, Nuniya, Rajbhar, Sonar, Sudhi, Teli, and Yadav [24]	Amat, Dev, Dhandi, Dhankar/Dharikar, Dhuniya Kalar, Kori, Natuwa, Rajdhob, Sarbaria, and Tara others [11]	
	Hill Dalit (8.1%)	Badi, Damai/Dholi, Gaine, Kami, Sarki [5]		
	Madhesi Dalit (4.7%)	Bantar/Sardar, Chamar/ Harijan/Ram, Dhobi, Dom, Dusadh/Pasawan/Pasi, Halkhor, Khatwe, Musahar, Tatma/Tatwa [9]	Chidimar, Dalit others [2]	
Adivasi Janajati	Newar (5.0%)	Newar [1]**		
(Indigenous Nationalities) (35.8%)	Mountain/ Hill Janajati (22.2%)	Bhote/Walung, Bote, Brahmu, Byasi, Chepang, Chhantyal, Danuwar, Darai, Dura, Bhujel, Gurung, Hayu, Yholmo, Jirel, Kumal, Lepcha, Limbu, Magar, Majhi, Pahari, Rai, Raji, Sherpa, Sunuwar, Tamang, Thakali, Thami, and Yakha	Aathpariya, Bahing, Bantawa, Chamling, Dolpo Ghale, Khaling, Kulung, Kusunda, Lhopa, Lohorung Mewahang Bala, Nachhiring, Raute, Samgpang, Thulung, Topkegola, Yamphu, and Janajati others [20]	
	Tarai Janajati (8.6%)	Dhanuk, Dhimal, Gangai, Jhangad, Kisan, Koche, Meche, Munda/Mudiyari, Rajbansi, Santhal, Tajpuriya, and Tharu [12]	Pattharkatta/Kushwadiya, Khawas [2]	

(continued)

	11 Main	Caste and ethnic groups (Census 2011)	
3 Major social groups	social groups	88 groups included in NSIS 2018	40 groups not included in NSIS 2018
Other (4.8%)	Muslim (4.4%)	Muslim [1]	Bengali, Punjabi/Sikh, foreigners, and unidentified
	Other (0.4%)	Marwadi [1; 0.2%]	others [4]

Table 3 (continued)

Note: Reproduced from "State of Social Inclusion in Nepal: Caste, Ethnicity, and Gender" (Evidence from Nepal Social Inclusion Survey 2018) by Gurung, Y.B, Pradhan, M.S., & Shakya, D.V. 2020, http://anthropologytu.edu.np/wp-content/uploads/2021/07/STATE-OF-SOCIAL-INCLUSION-IN-NEPAL\_CASTE-ETHNICITY-AND-GENDER.pdf, with the permission from © 2020 Central Department of Anthropology, Tribhuvan University, Kirtipur

- a Badhae and Kamar are merged into Badhae/Kamar; Bhote and Walung into Bhote/Walung. Thus the 88 groups actually included 90 groups and with the 40 groups not included in the study, the total adds up to 130
- b Newari society is comprised of many distinct caste groups but they have not been disaggregated in the NSIS
- c Percentages displayed in the tables are from the National Population and Housing Census 2011 d Blue shading for groups who have traditionally lived in hills and mountain (*Pahari*) and orange shading for Madhesi/Tarai groups who have traditionally lived in the plains belt (*Madhesis*)

categorized into 11 main broad social groups to analyze disaggregated data. However, the disaggregated data (88 different cate/ethnicities) also reveals intragroup differences within the categories of the 11 broad social groups concerning several indicators. Thus, it is essential to consider this factor (Gurung et al. 2020).

### **Data Sources**

Data for the indicators listed in Table 2 are available via several sources at the national level, mainly based on censuses and surveys. However, available indicators and their level of disaggregation vary depending on the specific objectives and sample coverage. Most sources have data disaggregated by gender, rural/urban residence, ecological zones, and provinces. The Nepal Social Inclusion Survey 2018 has a gender and caste/ethnic disaggregation, which is most important to identify the population groups that are far behind. These different sources are briefly discussed below.

*Nepal Demographic and Health Survey (NDHS) 2016* The NDHS 2016 is the latest and fifth round of its series and is part of the global demographic and health survey. The survey was carried out by the Ministry of Health (MoH) with the technical assistance of ICF International, USA (MoH, New Era, & ICF 2017). It is a nationally representative probability sample survey covering 11,040 households nationwide with interviews of 12,862 women and 4063 men aged 15–49 years. The level of disaggregation includes gender, rural/urban residence, and provinces.

Nepal Labor Force Survey (NLFS) 2017/18 The NLFS 2017/18 is the third round of its series since 1998 carried out by the Central Bureau of Statistics (CBS) of the GoN in collaboration with the International Labor Organization (ILO) (CBS 2019). CBS collected data related to the labor force of Nepal using a probability sample of 18,000 households with national representation. As in the NDHS, the level of disaggregation includes gender, rural/urban residence, and province.

Nepal Social Inclusion Survey (NSIS) 2018 The NSIS 2018 is the second-round survey of its kind carried out by the Central Department of Anthropology, Tribhuvan University (Gurung et al. 2020). The first round was carried out in 2012. NSIS is a household survey of 88 different caste/ethnic groups in Nepal, covering 17,600 households, from which 34,723 interviews (17,247 men and 17,476 women) were conducted in 68 districts countywide. It provides data on various aspects of socioeconomic status, such as demographic, social, economic, governance, gender, and discrimination. It is disaggregated by gender and caste/ethnicity.

Household Risk and Vulnerability Survey (HRVS) 2018 This survey was carried out in 2018 by the World Bank, Nepal (Walker et al. 2019). It is the third wave of a panel household survey, which covers 6051 households in 50 districts. The first wave was in 2016 (6000 households), and the second was in 2017 (5835 households). The reference period of the survey was from 2014–2018 to capture families' experiences during various types of natural disasters and disruptions.

Nepal Multiple Indicator Cluster Survey (NMICS) 2019 The NMICS 2019 is the second-round survey carried out by CBS in 2019, following the first round in 2014 (CBS and UNICEF 2020). It was conducted in collaboration with the United Nations Children's Fund (UNICEF) as part of the Global MICS program. It is a nationally representative periodic survey with a sample of 12,800 households, where 15,805 women and 5501 men (aged 15–49 years) were interviewed. The level of disaggregation of data is the place of residence and province.

**Additional Sources** We also utilized data derived from other sources. The poverty rate calculated in the Nepal Multidimensional Poverty Index 2021 prepared by NPC (2021) is used to inform economic opportunity. This data is disaggregated by rural/urban residence, province, age, and disability status. This study also utilized data from the Informal Sector Service Center (INSEC), which provides data on the prevalence of COVID-19 disaggregated by gender, province, and district.

# Measuring Progress on LNOB Indicators for the SDG

NPC (2017b) proposed 494 indicators to monitor progress and determine the status of each SDG goal and target in Nepal. It also established the benchmarks for each indicator to be met by 2019, 2022, 2025, and 2030, using 2015 as a base year. These indicators and their projected benchmarks are necessary to accelerate the progress by focusing interventions on those goals and targets that are trailing behind.

The progress assessment report of the NPC (2020a) quantified indicators to determine Nepal's progress toward SDGs from 2015–2019. It accomplished this by contrasting the data from the 2015 baseline with the 2019 benchmark. To track the progress of SDGs from the perspective of LNOB, the authors used a progress assessment report to derive data for indicators linked to LNOB. Based on the interpretation, the SDG progress from an LNOB perspective was classified into five categories:

- 1. **Significant progress** refers to goals in which the indicators have met or exceeded the benchmarks for 2019.
- 2. Moderate progress refers to goals in which most indicators have significant achievements close to the 2019 benchmark. A few indicators are still trailing behind and require policy and program attention; however, they show positive signs of potentially meeting the 2030 benchmark.
- Slow progress refers to goals in which most indicators are trailing behind the benchmarks and require concerted policy and program attention to yield significant results.
- 4. **Reverse progress** includes goals whose indicators are regressing rather than progressing, implying that the situation has deteriorated even from the base year 2015.
- 5. **No data** includes goals for which data is unavailable and cannot be compared to the 2015 baseline.

# Results

In this section, the authors describe the results from determining Nepal's population that is the furthest behind, as well as assessing progress on the LNOB indicators of SDGs.

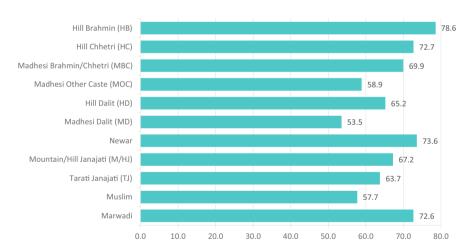
# Identifying the Population That Is Furthest Behind in Nepal

Analysis of the 46 indicators of SDGs (see Table 2) was conducted using the datasets mentioned in Section "Data Sources". Of the 46 indicators identified for this analysis (see Table 2), 30 have data disaggregated by gender and 88 caste/ethnic groups. They are categorized into 11 broad social groups – Hill Brahmin (HB), Hill Chettri (HC), Madhesi Brahmin/Chhetri (MBC), Madhesi other castes (MOC), Hill Dalits (HD), Madhesi Dalits (MD), Newar, mountain/hill Janajati (M/HJ), Tarai Janajati (TJ), Muslim, and others (see Table 3). Each of the 46 indicators was reviewed using the available data. The analysis helped to identify and determine the furthest behind population in Nepal along the three dimensions of exclusion: socioeconomic status, governance, and shocks and fragility. Within these three key dimensions, the population furthest behind were broadly categorized through gender, place of residence,

ecological zones, and social groups (11 broad categories outlined above in Table 3). The major overall results from the socioeconomic status analysis were as follows:

- It is almost universal that *women* among the gender, rural areas among the place of residence, and *mountain* and *Tarai* among the ecological zones are left behind in most indicators.
- Out of the seven provinces, *Karnali* is the "furthest behind" in most indicators, including maternal health, employment, multidimensional poverty, and women's role in household decision-making.
- *Sudurpashchim* province is also "furthest behind" in many indicators, such as infant and child mortality, employment, multidimensional poverty, and women's land and house ownership.
- *Madhesh* province comes at the bottom in some indicators, such as child education, postnatal health care, and gender-based violence.
- *Gandaki* province is also left behind concerning antenatal care, employment, and gender-based violence.

**Socioeconomic Conditions** Figure 2 shows the results from a composite index of 30 socioeconomic indicators. The composite index comprises 30 socioeconomic indicators (socioeconomic, health, gender, and governance) for 88 caste/ethnic groups. The considerations made for forming the composite index are as follows:



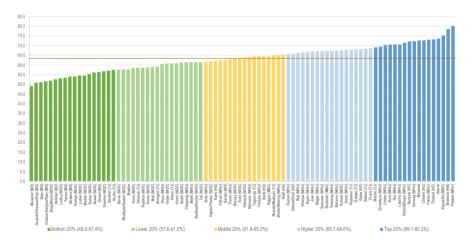
**Fig. 2** Composite index (30 socioeconomic indicators) by the broader group of caste/ethnicity. (*Note.* Reproduced from "State of Social Inclusion in Nepal: Caste, Ethnicity, and Gender" (Nepal Social Inclusion Survey 2018) by Gurung, Y.B., Pradhan, M.S. & Shakya, D.V. 2020, http://anthropologytu.edu.np/wp-content/uploads/2021/07/STATE-OF-SOCIAL-INCLUSION-IN-NEPAL\_CASTE-ETHNICITY-AND-GENDER.pdf., with the permission form © 2020 Central Department of Anthropology, Tribhuvan University, Kirtipur. Broader social groups of 88 caste/ethnic groups were made based on Table 3. *Source:* NPC (2022), Annex (Table A3.19), p.117)

- The index is in terms of 100 (in %). It is computed by the simple average, assuming that all the indicators have the same weights to add up an index.
- There are some indicators in the negative direction of the performance. They are reversed by subtracting from 100.
- Some indicators are in mean, so they are transformed into percentage terms through normalization using the formula – ([observed-lowest value]/ [highest-lowest value]).
- Indexes are interpreted as "the higher the percentage, the better off the situation or inclusion in given indicator" and vice versa.

This index provides an insight into which of the broader social groups lie the furthest behind concerning social and economic indicators. It shows that the *Madhesi Dalits*, *Muslims*, and *Madhesi* other caste groups are the furthest behind in the composite score of 30 socioeconomic indicators.

Going into further details of the data disaggregated by the 88 different caste/ethnic groups, it reveals who among the particular caste/ethnic groups are those furthest behind, and Fig. 3 provides these details. Based on the index score, the 88 groups are classified into quintile groups (five 20% groups represented by different colors in Fig. 3). Each quintile accounts for approximately 17 caste/ethnic groups (16–19 groups).

An assessment was made based on the individual indicators and a consolidated form of a composite of 30 indicators. The major findings are as follows:



**Fig. 3** Composite index of 30 indicators of social inclusion in Nepal by quintile, by caste and ethnicity. (*Note.* Reproduced from "State of Social Inclusion in Nepal: Caste, Ethnicity, and Gender" (Nepal Social Inclusion Survey 2018) by Gurung, Y.B., Pradhan, M.S. & Shakya, D.V. 2020, http://anthropologytu.edu.np/wp-content/uploads/2021/07/STATE-OF-SOCIAL-INCLUSION-IN-NEPAL\_CASTE-ETHNICITY-AND-GENDER.pdf, with the permission from © 2020 Central Department of Antrhopology, Tribhuvan University, Kirtipur. See list of indicators in Table 2. *Source:* NPC (2022), Annex (Table A3.19), p.117)

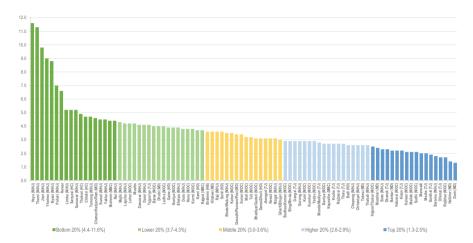
• The result shows that out of nine caste/ethnic groups, eight *Madhesi Dalits* are at the bottom 20% of the index; the exception is the *Bantar*, just above the bottom 20%. At the bottom 20%, others include *Madhesi* other castes, namely *Bin/Binda*, *Lodha*, *Nuniya*, *Lohar*, *Mallah*, *Kahar*, *Kewat*, and *Kumhar*. Two groups from the *Tarai Janajati* (*Santhal* and *Koche*) are also among the bottom 20%.

- In the case of individual indicators, in all 30 indicators, similar caste/ethnic groups fall at the bottom 20%. They are mostly *Madhesi* groups who belong to *Madhesi Dalits*, *Muslims*, some *Madhesi* other caste groups, and a few *Tarai Janajati* groups.
- Muslims and all nine Madhesi Dalits (Musahar, Khatwe, Dhobi, Tatma, Dudadh/ Paswan/Pasi, Chamar/Harijan/Ram, Dom, Halkhor, and Bantar) are at the bottom in one or more indicators. The most frequent Tarai Janajati groups at the bottom are the Santhal, Kisan, Koche, and Munda/Mudiyari.
- Some *Madhesi* other caste groups have a similar status to *Madhesi Dalits* in many indicators, namely *Bing/Binda*, *Mallah*, *Kanu*, *Lodha*, *Nuniya*, *Rajbhar*, and *Bhediyar*. They are also at the bottom in one or more indicators.
- In the case of hill groups, all the Hill *Dalits (Badi, Gaine, Damai, Kami,* and *Sarki)* are at the bottom in one or more indicators. A few mountain/hill *Janajatis* are also at the bottom in many indicators. They include the *Thami, Chepang, Baram, Sherpa, Bhote/Walung, Raji, Byasi, Bote,* and *Yholmo*.
- Newars and Muslims are diverse and have several subgroups within the broad category. The NSIS 2018 was not able to further disaggregate these two major groups. Separate data collection and analysis will support identifying those left behind, even within these groups. Among Muslims are, for example, *Kawadi*, *Fakir*, *Nat*, *Dhobi/Salfi*, *Jolada*, *Darji*, and *Hajam*. Similarly, among the Newars, different groups are based on traditional hierarchical roles the Newar Brahmins, business groups, skilled workers, cleaners/sweepers, and those primarily Hindu or Buddhist.

The composite index provides a better insight into identifying the furthest behind in overall categories. But it is also imperative to look at individual indicators while drawing specific conclusions for specific indicators. As mentioned earlier, it is also important to remember two key issues about exclusion. First, characteristics of exclusion and inclusion are most often on a continuum. Second, the same group can be excluded in specific indicators and fairly well included in others.

**Persons with Disabilities** Another example of disaggregated analysis is presented in Fig. 4, which gives a clear picture of which social identity group is furthest behind when looking at the prevalence of disabilities among the respondents in the NSIS 2018. These findings are a bit unique and contrast with most other results regarding the groups in the bottom quintile (see Fig. 4).

Madhesi Dalits and some Madhesi other caste groups are at the bottom 20% in
most other indicators, yet this is not the case concerning the prevalence of
disabilities.



**Fig. 4** Prevalence of disabilities by quintile, and by caste and ethnicity. (*Note*. Reproduced from "State of Social Inclusion in Nepal: Caste, Ethnicity, and Gender" (Nepal Social Inclusion Survey 2018) by Gurung, Y.B., Pradhan, M.S. & Shakya, D.V. 2020, http://anthropologytu.edu.np/wpcontent/uploads/2021/07/STATE-OF-SOCIAL-INCLUSION-IN-NEPAL\_CASTE-ETHNICITY-AND-GENDER.pdf, with the permission from © 2020 Central Department of Antrhopology, Tribhuvan University, Kirtipur. See list of indicators in Table 2. The Washington Group definition of disability has been adopted. *Source:* Gurung, Pradhan, and Shakya (2020), Annex 3.9, p. 196. Note: The Washington Group definition of disability has been adopted)

- Some of the hill/mountain *Janajatis* who are not at the bottom 20% in most indicators are actually at the bottom regarding the prevalence of disabilities. For example, hill groups such as *Newars*, *Thakuris*, and *Chhetris* are at the top quintiles in most indicators but have a higher prevalence of disabilities.
- The prevalence of disabilities is not necessarily directly related to economic and noneconomic poverty but rather to other factors that must be addressed differently.

**Limited Access** The furthest behind groups in terms of distance-related indicators, e.g., distance to basic services, are mainly those who reside in mountain and hill areas, for example, the *Sherpa*, *Hayu*, *Bhote/Walung*, *Yholmo*, and other mountain/hill *Janajati* groups.

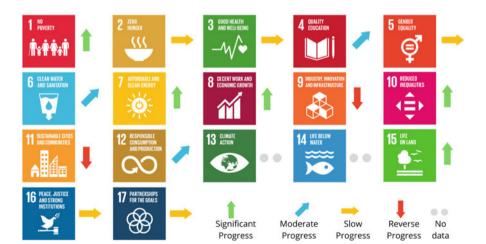
**Sociocultural Discrimination** In discrimination-related indicators (such as perceptions of discriminatory treatment in general, in government offices and while accessing services, no cooperation by neighbors or friends, and discrimination against eating together), as expected, it mostly was Hill and *Madhesi Dalits*, and some *Janajati* groups (such as *Bhote*, *Sherpa*, *Byasi*, *Santhal*, and *Kisan*) reported the highest levels of discrimination.

**Shocks and Fragility** The Household Risk and Vulnerability Survey 2018 carried out ten indicators of shocks and fragility, which were disaggregated by districts in Nepal. The major findings were:

- The 2015 earthquake and disease and injury each affected 13 districts severely.
- The riots, blockade, fuel shortage, and unexpected higher prices also severely affected nine districts, including *Kailali*, *Banke*, *Myagdi*, *Baglung*, *Gulmi*, *Palpa*, *Rupandehi*, *Nawalparasi*, and *Udayapur*.
- Flood and landslide, drought and fire, as well as hail and lighting affected eight districts, mainly from *Sudurpashchim, Karnali*, and *Gandaki* provinces, and one district (*Taplejung*) was from Province 1.
- Six districts were most affected by pests, plant disease, and postharvest loss; seven by livestock loss; and four by "deaths in the family."
- In the case of COVID-19, the most affected districts are among those most advanced in all aspects of development, where the people are highly active and mobile in economic and development activities. They are *Kathmandu*, *Kaski*, *Lalitpur*, *Morang*, *Jhapa*, *Sunsari*, *Rupandehi*, *Chitwan*, *Bhaktapur*, *Banke*, and *Dang*.

# Progress in Leaving No One Behind for the Nepal SDG

Tracking changes in SDG indicators linked to LNOB from the baseline data in 2015–2019, the authors broadly find the following levels of progress (Fig. 5): (i) **significant progress** for indicators under SDG 1, 7, 8, 10, and 15;



**Fig. 5** Overview of progress made on Sustainable Development Goals regarding leaving no one behind in Nepal. (*Note*. Reproduced from <a href="https://www.un.org/sustainabledevelopment/">https://www.un.org/sustainabledevelopment/</a> with permission from ©United Nations. The content of this publication has not been approved by the United Nations. It does not reflect the views of the United Nations, its officials, or member states)

(ii) **moderate progress** for SDG 4, 6, and 12; (ii) slow **progress** for LNOB indicators within SDG 2, 3, 5, 16, and 17; (iv) **reverse progress** for indicators within SDG 9 and 11; and **no data** on SDG 13. A key constraint for tracking progress on SDGs, in particular ensuring no one is left behind, is the lack of data, insufficient data, and the absence of up-to-date data for various indicators of the Nepal SDG.

# **Significant Progress**

From the LNOB perspective, Nepal's progress on SDG 1 (end poverty), SDG 7 (affordable and clean energy), SDG 8 (decent work and economic growth), SDG 10 (reduce inequalities), and SDG 15 (life on land) is encouraging.

**Poverty reduction** is one of the country's key challenges. Yet the population below the national poverty line decreased from 21.6% in 2015 to 16.7% in 2019 (well below the 2019 benchmark of 17.1%). Similarly, the multidimensional poverty index has declined sharply from 44.2% (2015) to 28.6% (2019) and 17.4% in 2021. The percentage of the population covered by **social protection** floors/systems has doubled (from 8.1% in 2015 to 17% in 2019). However, there has been no progress on the GoN's social protection spending in the total budget. The percentage of households with property/tangible assets owned by women has increased from 19.7% in 2015 to 26% in 2019, significantly over the 2019 benchmark of 25.1%.

The progress of SDG 1 can be attributed to three primary reasons. First, SDG 1 is one of the highest recipients of Nepal's overall budget in each fiscal year, accounting for 19.3% in 2016/2017, 16% in 2017/2018, 6.1% in 2018/2019, and 6.4% in 2019/2020 (NPC 2020a). Civil society and the private sector have also supported the GoN's efforts to reduce poverty. Secondly, Nepal's rapidly evolving nature of social protection mechanisms is increasingly striving to include a broader range of vulnerable people. Social security allowances are now distributed to the elderly, single women and widows, endangered ethnic communities, partial and full disability, child grants, and medical treatment allowances (for ages 70+) (UNICEF 2020). Finally, various proactive measures to promote women's property rights yield positive outcomes.

The progress in SDG 7 (affordable and clean energy) is also encouraging. In 2019, the population with access to electricity climbed to 89.9%, up from the 2019 benchmark of 80.7%. Energy consumption per capita has also surpassed the benchmark of 18.1 GJ to 20 GJ. The per capita electricity consumption has increased significantly from 80–260 KWh (2015–2019), considerably higher than the 2019 target of 230 KWh. The percentage of people who use liquid petroleum gas has also significantly increased. However, the use of solid fuel has not decreased to anticipated levels. The slow improvement is the most noticeable among the bottom three income quintiles, including rural areas. They have unique affordability and supply chain issues regarding getting clean fuels (Paudel et al. 2021). The data shows that the population is slowly and steadily switching to electricity as an energy source. Increased domestic hydropower generation from a rising number of small, medium, micro-, and mega-hydropower plants installed across the country has helped accommodate the increased electricity usage.

**Decent work and economic growth,** two vital components of SDG 8, have also seen significant progress. The annual growth rate of GDP per capita has gone up from 2.3% in 2015 to 5.6% in 2019, higher than the target of 3.6%. The annual real GDP growth rate per employed person has surpassed the 3.8% threshold, rising to 7%. Likewise, the unemployment rate (15–59 years) has declined from 27.8% to 19.6% (2015–2019), well below the 2019 target of 23.1%. Additionally, access to cooperatives has increased from 54–60%, demonstrating increased access to finance and other services. However, the country has not successfully reduced the proportion of people working in informal employment; it increased from 70% in 2015 to 81.2% in 2019 (as opposed to the target of 54% in 2019).

Reducing inequalities (SDG 10) within and across the countries by promoting sustained economic growth has been met with some success in Nepal. Income inequality, measured by the Gini coefficient, dropped to 0.32 in 2019 from 0.46 in 2015 (higher than the 2019 target of 0.4). Additionally, the share of total income earned by the bottom 40% of the population increased from 11.9–20.4% (considerably above than 2019 target of 13.1%). The social, economic, and political empowerment index has also shown significant progress, surpassing the 2019 benchmark. One of the critical reasons for this success is the progressive provisions of reservations and affirmative actions for minorities and marginalized communities included in the 2015 Constitution of Nepal.

The gap between the richest and poorest quintiles regarding primary school completion has narrowed. The ratio of riches versus poorest quintiles dropped from 2.20 in 2015 to 1.21 in 2019 (lower than the 2015 benchmark of 1.88). This drop is mainly due to the nationwide expansion of benefits and scholarship programs such as school meal programs, free sanitary pads for girl students, and scholarships for needy people. In this regard, the midday meal program in Nepal has significantly impacted school enrolment and attendance. It has now been increased to include an additional 720,000 children through an additional investment of 10.98 million USD for the 2018/2019 academic year (The Global Child Nutrition Foundation 2019). Similarly, the farm households covered by microfinance increased from 24–29% (up from the 2019 benchmark of 28.3). One reason for this increase is Nepal's mushrooming of microfinance institutions and cooperatives. By early 2019/2020, the number of cooperatives has grown to 34,837, with 6,515,460 shareholders and share capital of NRs. 77.24 billion (MOF 2020).

Selected indicators related to SDG 15 – **protecting, restoring, and promoting sustainable life on land** – have also seen significant progress. Nepal has been at the forefront of promoting sustainable forest management, reducing the degradation of natural habitats and biodiversity loss, and preventing threatened species' extinction. The handover of forests to leasehold forest groups has reached 45.4 thousand hectares. The number of tigers and rhinos has dramatically increased to 235 and 645, respectively (as against the 2019 targets of 205 and 600, respectively).

### **Moderate Progress**

Nepal has made moderate progress on SDG 4 (inclusive and quality education), SDG 6 (clean water and sanitation), and SDG 12 (responsible consumption and

production) from the LNOB perspective. Most LNOB indicators of SDG 4 are near accomplishments to meet the 2019 benchmarks. In some cases, progress on indicators has reached or exceeded the benchmark, while progress on some indicators is still lagging far behind.

SDG 4 advocates for **inclusive and quality education**, especially in student enrolment, retention, and completion. The net primary education enrolment rate grew from 96.6% in 2015 to 97.2% in 2019 but fell short of the 2019 benchmark of 98.5%. On the other hand, the gross secondary education enrolment climbed from 56.7–71.64% in the same period (as opposed to a 72% benchmark). Similarly, the gross enrollment rate of early childhood education fell short by one percentage point. The devastation of around 24,000 classrooms in the country (Childs 2015) caused by the 2015 earthquake is one of the critical reasons for falling short of the 2019 benchmark. In addition to the 2015 earthquake, political instability following the promulgation of the 2015 Constitution significantly influenced the education sector, with more students not enrolling and dropping out of school (MOE et al. 2016). Moreover, the shutdown of schools to combat the COVID-19 pandemic has negatively affected quality education. Minorities and marginalized populations are the ones that suffer disproportionately during times of crisis.

Concerning gender parity indices, there are more girls than boys in primary school (1.06). However, it is not true at the secondary levels (0.95) against the 2019 benchmark of 1.0. The progress in literacy rates, human asset index, and gender development index is remarkable and has surpassed the benchmarks for 2019.

Despite falling short of the 2019 benchmark of 28.6%, the percentage of schools with Internet connectivity has climbed considerably from 3.9% in 2015 to 28% in 2019. In the meantime, data for some of the indicators for Target 4.a.1 – the percentage of schools with access to electricity, WASH facilities, disabled-friendly infrastructure, and computers for pedagogical purposes – are currently unavailable. However, these indicators have some potential to meet the 2030 targets. The school infrastructure built as part of the post-earthquake reconstruction has access to electricity, WASH facilities, and a disabled-friendly environment. More than 80% of schools have been rebuilt with solid infrastructure such as water, toilets, and ramps (Awale 2021). Moreover, WASH infrastructure is rapidly being built in schools as a lesson learnt from the COVID-19 pandemic. Virtual teaching and learning increased throughout the pandemic. Many educational institutions had to install computers and Internet facilities for pedagogical purposes.

Clean water and sanitation (SDG 6) is undoubtedly one of Nepal's top priorities in development projects and programs. The population with access to safe drinking water increased from 15% in 2015 to 25% in 2019 (lower than the 2019 benchmark of 35%). Households with access to piped water supply are also slowly increasing from 49.5–49.6% (as opposed to the 2019 benchmark of 60.3%). Water supply systems are still insufficient to provide a reliable and sustainable water supply in Nepal (Sharma et al. 2021).

Nepal has made significant progress in the percentage of people using a latrine, rising from 67.6–85% (higher than the 2019 target of 75.7%). The proportion of

sanitation coverage has also increased from 82-99% (2019 target -86.5%). This positive outcome has resulted from a decade-long campaign to end open defecation. Improved awareness and lessons learned due to the COVID-19 pandemic have contributed immensely toward a higher probability of attaining the 2030 benchmarks for clean water and sanitation services.

Indicators related to responsible consumption and production (SDG 12) – sustainable management and efficient use of natural resources, reducing global food loss and waste, and managing chemicals and waste - have also made moderate progress. The indicators such as the percentage of soil organic matter, cereal as a percentage of cultivated land, and fossil fuel energy consumption have also made remarkable progress. However, the per capita wood consumption (cubic meters) per annum is regressing rather than progressing, from 0.11 m<sup>3</sup>/cap in 2015 to 0.65 m<sup>3</sup>/ cap in 2019 (compared to the 2019 benchmark of 0.09 m<sup>3</sup>/cap). Nepal's wood consumption increased due to the post-earthquake reconstruction and the 2015 unofficial border blockade. A severe lack of access to cooking gas or kerosene due to the Nepal-India border blockade drastically increased the demand for firewood, putting pressure on Nepal's forests (Khadka 2015). More than 33 million cubic feet of timber were required for post-earthquake reconstruction (Paudel et al. 2015). Meanwhile, the 2015 benchmark of the use of plastic per capita in grams per day has been met. However, there is no data on food waste, postharvest loss, and management of chemicals and waste.

# Slow Progress

Nepal has made slow progress on SDG 2 (zero hunger), SDG 3 (healthy lives and wellbeing), SDG 5 (gender equality), SDG 16 (peace, justice, and strong institutions), and SDG 17 (partnership for sustainable development). Many of the LNOB indicators for these five goals are well behind the 2019 benchmark. In some cases, LNOB indicators are regressing rather than progressing. To meet the 2030 benchmarks, Nepal must make rapid progress in these goals through concerted policy, program attention, and greater financial investment.

SDG 2 (**zero hunger**) also addresses undernourishment, public spending on food consumption, malnutrition, stunting, sustainable agriculture, and expenditure in agriculture – all of which are progressing slowly in Nepal. The GoN needs to prioritize addressing the prevalence of malnutrition among children under five to meet the 2030 benchmark from the LNOB lens. Data also shows that progress in anemia prevalence among women of reproductive age and children under 5 years is regressing rather than progressing. The prevalence of anemia among women increased from 35–40.8% from 2015–2019 (against the 2019 benchmark of 26%). Among children, it increased from 46–52.7% (against the 2019 benchmark of 33%). A study in the Madhesh province hospital reveals anemia is a severe public health problem among pregnant women of underprivileged and disadvantaged communities (Yadav et al. 2021).

The expenditure on agriculture by the GoN in 2019 (2.21% of the total budget) is lower than in the base year of 2015 (3.3% of the total budget). Meanwhile, the

prevalence of undernourishment is declining, with the rate dropping from 36.1% to 8.7% from 2015–2019 (against the 2019 benchmark of 27.3%).

SDG 3 aspires to **ensure healthy lives and promote wellbeing** for all. Despite significant advancement in the percentage of births attended by skilled health personnel, maternal mortality was not improving as expected. Compared to the 2019 target of 125, the maternal mortality ratio declined from 258 in 2015 to 239 in 2019. The slow progress occurred despite the significant gain in institutional delivery, which increased from 55.2–77.5% within the same period. The underlying causes of maternal mortality are poor quality of health services in hospitals and primary health centers, geographical barriers, and transportation-related hurdles to maternal health care for women living in mountain and hill areas (MOHP 2020). There are also disparities in maternal health based on geography, education, caste/ethnicity, and poverty (ibid.).

High road fatality is one of Nepal's primary development challenges. The death rate due to road traffic is still high; its reduction from 19.86 to 15.92 is modest compared to the 2019 target of 9.93. The high death rate is due to poor road conditions, rough terrain, overcrowded vehicles, and poor vehicle condition. Access to safe roads has not significantly increased, making travel risky and expensive (MOF 2020). Road accident is more common in Nepal's hill and mountain regions.

Progress in the field of sexual and reproductive health care is also sluggish. In this regard, the percentage of women who have their family planning needs fulfilled by modern means is regressing rather than progressing (from 66% to 56%). The percentage of the target population covered by all vaccines in their national program fell short of the 2019 target. Nepal has significant vaccine disparities based on household wealth quintiles and maternal educational levels (Acharya et al. 2019), indicating that vaccination rates are lower among low-income families and mothers with limited education.

Gender equality is an essential part of LNOB. Therefore, progress in all other goals from an LNOB perspective may remain elusive without considerable progress in SDG 5, which primarily aspires to achieve gender equality and gender empowerment. The advancement of the gender equality index lags well below the 2019 target, while the rise of gender empowerment achieved it. Wage inequality between men and women for similar work still exists in Nepal; wage equality has progressed moderately, increasing from 0.62 in 2015 to 0.66 in 2019 (as against the 2019 benchmark of 0.72). The prevalence of behavioral discrimination against women; the persistence of societal structures, beliefs, values, and traditional practices that promote illiteracy, harmful practices, gender-based discrimination, and violence against women; a lack of disaggregate data to advocate for gender equality; and failure to protect, rehabilitate, and empower the women at risk are the main problems leading to gender inequality (NPC 2020c).

Despite several legislative steps taken by the GoN and advocacy by civil society organizations to alleviate the situation, progress in eliminating violence against women has fallen short of expectations. The percentage of women and girls who have had lifelong physical or sexual violence, children who have experienced psychological aggression or physical punishment, and women and girls who have

been trafficked is significantly higher. The number of women and girls trafficked is 946 per year (higher than the 2019 benchmark of 725). Human trafficking victims are mainly from *Janajati* (48%), followed by *Brahmin/Chhetri* (29%), *Dalit* (15%), and *Madhesi* (8%), with 98% of victims being female (NHRC 2017). Human trafficking surged due to the socioeconomic impact of the 2015 earthquake. It mainly occurred among socially and economically disadvantaged groups such as *Tamang* and Dalit communities, with most victims being women and girls (Manandhar 2017). The COVID-19 pandemic increased violence against women and human trafficking, which is expected to push the slow advances, even lower and reverse progress.

On the political front, LNOB indicators showed laudable progress. The percentage of women in national parliaments has risen from 29.5% in 2015 to 33.5% in 2019 (just about surpassing the 2019 benchmark of 33%). Similarly, the percentage of women in provincial and local government bodies is 34.4% and 40.8%, respectively, slightly higher than the 2019 target of 33% and 40.5%. This increase is the result of progressive provisions of the 2015 Constitution that guarantees 33% of seats to women in all state organs as well as male-female alternate seat provisions in the highest positions, such as president and vice president, chief and deputy chief of parliaments, and the mayor and deputy mayor, where one out of two must be female (Upreti et al. 2020). These gains are only measured in percentages, and meaningful and decisive women's participation still lags far behind. The percentage of women in decision-making positions in public services fell short of the 2019 benchmark of 17%, growing slowly from 11–13.6%. The lack of meaningful and decisive women's participation and a lower percentage of women in decision positions in the public sector has slowed the overall progress. Conversely, women have satisfactory growth in decision-making in the private and cooperative sectors.

The goal of SDG 16 is to **foster inclusive and peaceful societies to achieve sustainable development**. In each fiscal year, SDG 16 is the third largest receiver of Nepal's SDG budget. It received 10.5% of total SDG budget in the fiscal year 2016/2017, 28.8% in 2017/2018, 10.9% in 2018/2019, and 10.4% in 2019/2020 (NPC 2020a). Despite this, progress on SDG 16 indicators is slow.

Nepal made no progress in terms of transparency, accountability, and corruption. There has been a drop in the score for good governance regarding corruption control, from -0.78 in 2015 to -0.82 in 2019 (the 2019 benchmark of 0). The higher numbers correspond to good governance on a scale of -2.5 to 2.5. The actual causes of corruption are difficult to pinpoint. However, studies show that state restructuring (federal, provincial, and municipal government) has resulted in devolution of power, corruption, and bribery. Nepal's anti-graft agency survey report indicates municipalities are the second most corrupt entity after land revenue offices. A 55% of survey respondents label land revenue offices as the most corrupt, and 41.6% label municipalities as the most corrupt (Shrestha 2019). According to a survey, 67.6% of respondents said they had heard about increased corruption cases in municipalities and 14.9% said they had directly experienced corruption in municipalities, with *Karnali* province having the highest percentage of respondents (31.6%) who had experienced corruption (CIAA 2020).

Regarding effective, accountable, and transparent institutions, the percentage of government expenditures based on the original approved budget has slowly increased from 76% in 2015 to 77.9% in 2019, compared to the 2019 benchmark of 81.1%. The percentage of women in decision-making positions, on the other hand, is far lower than expected. The plus side of SDG 16 is that birth registration has significantly increased and is expected to rise due to the introduction of a digital birth registration process. The number of people killed in armed and violent conflicts has decreased significantly.

SDG 17 focuses on **resource mobilization, trade and finance, technology transfer, partnership and cooperation, and policy coherence**. The LNOB indicators identified for SDG are foreign direct investment (FDI), official development assistance (ODA), remittances, and debt sustainability. Slow progress has been made in ODA and FDI as a proportion of the total domestic budget, with both falling short of expectations. Similarly, FDI and volume of remittances as the proportion of total GDP are falling short of expectations. For instance, the percentage of FDI as a proportion of GDP modestly increased from 4.8% in 2015 to 6.2% in 2019, compared to the 2019 benchmark of 7.3%. In Nepal, the debt is very manageable. On the negative side, the COVID-19 pandemic and its economic impact have prompted donor countries to reassess their ODA and FDI pledges to recipient countries, thus stymieing overall progress on LNOB indicators for SDG 17.

# **Reverse Progress**

SDG 9 (industry, innovation, and infrastructure) and SDG 11 (sustainable cities and communities) have been the highest recipients of the total allocated budget for the SDGs (NPC 2020a). Yet, despite it, they have seen regression rather than advancement. Nepal's goals, demands, and needs for infrastructure, construction, and manufacturing outnumber available human, financial, and material resources. Additionally, the 2015 earthquake and state restructuring following the adoption of the 2015 Constitution diverted considerable resources to post-earthquake reconstruction and administration arrangements for the three tiers of government.

Based on limited data, the indicators of SDG 9 have dropped behind the base year of 2015. The road density (km/sq.km), which increased from 0.55 in 2015 to 0.63 in 2019, has made a little incremental gain. Nepali people have long been worried about road quality and safety. More specifically, roads have been constructed with little regard for their condition and public safety. Only 43% of strategic roads in Nepal are in good condition, 42% are in average condition, and 15% are in poor condition (NPC 2020c). There has also been a regression in manufacturing value added as a percentage of GDP and industry's share of GDP.

Concerning suitable human settlement planning and environmental impacts on cities (SDG 11), the effect of the growth of cities on the environment is deteriorating, as evidenced by the parameters for urban air pollution. Compared to 2015, the concentrations of total suspended particles are PM 2.5, and the amount of sulfur dioxide in the air has either remained the same or has declined. On the other side, the number of planned cities has been increasing. Given the context of limited resources

and the COVID-19 pandemic, expanding the number of planned cities makes little sense if they cannot be realized on time.

# No Data

Reliable and valid data for SDG 13 (**climate action**), related to tracking greenhouse gas emissions from various sectors like transportation, industry, agriculture, and energy, is still unavailable for the country.

# **Gaps and Challenges**

In this section, the authors identify and discuss four gaps and challenges currently affecting SDG achievement. These gaps and challenges could backtrack the progress made so far, substantially hindering future progress on LNOB. The GoN could respond quickly and appropriately to address these gaps if Nepal is to do its best to reach the SDG targets by 2030 – at least many of them.

# Varying Levels of Understanding and Capacity for SDG Implementation and Monitoring

There is a varying understanding of SDG implementation and monitoring in Nepal. In 2015, Nepal adopted a new governance structure of federal, provincial, and local governments, further complicating the situation. There are no clearly delineated roles for various federal, provincial, and local stakeholders. Mobilizing extra resources, developing and strengthening monitoring mechanisms, and integrating SDG implementation into periodic plans and policies of different governance levels are challenging.

The localization of SDG implementation and monitoring has given reasons for optimism in resolving the varying levels of understanding among related stakeholders, especially at the local levels. However, the efforts have not been adequate. While there is some understanding at the provincial levels, implementation mechanisms, data analysis, usage, and resource allocation have been ad hoc. Mainly, it is weak in municipalities where there is a need for increased awareness, information, and knowledge about national and international commitments. Due to limited information, communication, commitment, and capacity at the subnational levels, there is little enthusiasm for systematically addressing the principle of LNOB.

Additionally, there is a need to strengthen local organizations' capacity, especially for promoting locally led development focusing on the SDG and LNOB goals and contributing toward evidence and monitoring. Despite numerous nongovernment and civil society organizations in Nepal, their role as watchdogs and constructive advocates has been diminishing in the current context of increasing politicization of organizations at all levels.

### **Resources Crunch**

SDGs are a resource-intensive global transformative agenda for 2030 that demands additional human, financial, and material resources. Predictably, the LNOB indicators will require more finance, new technology, skilled human resources, adequate infrastructure, and high-quality managerial capacity. Nepal currently lacks those needs. The COVID-19 pandemic has posed enormous challenges in this regard. The GoN expenditures and resources were concentrated on combating the pandemic, and the socioeconomic impact of the pandemic substantially reduced international aid and assistance. Besides, the NPC (2017b) report on SDG status and roadmap for 2016–2030 has identified SDG targets and indicators for Nepal. Still, it does not recommend critical interventions to meet the targets and indicators.

# **Lack of Quality and Reliable Data**

One of the critical challenges in addressing the SDG targets, particularly from the perspective of LNOB, is the lack of disaggregated data and a monitoring and evaluation framework that spans the three tiers of the government and engages innovative measures of data collection, analysis, and usage. The lack of quality and reliable data makes it difficult to track progress disaggregated by age, caste, class, disability, ethnicity, gender, and region. More specifically, the data available from domestic institutions often suffer from standardization with the required methodology, which poses another challenge to the compatibility of the findings with the global framework. In a different aspect, Nepal has listed several SDG indicators in NPC's report of SDG status and roadmap without considering data availability. Another pertinent challenge is a lack of capacity for data preparation and management skills at the local level, which is the main agency for monitoring SDG implementation and outcomes.

Nepal focuses on 16 of the 17 Goals but has identified 494 indicators (257 in addition to the 232 global ones). They have resulted from the localization of many SDG targets through extensive consultation at national and local levels with multiple stakeholders. Yet the major problem is the availability of data to measure and track all these indicators. An analysis by the National Planning Commission has identified that reliable and regularly produced data in the country is only available for 174 of the 494 indicators (35%) (NPC 2020b).

Data collection is also not periodic, which results in irregular execution of national-level surveys such as NDHS, NLSS, NLFS, NMICS, and NSIS. These surveys have not been fully aligned with SDG targets and indicators. There are also no national-level surveys aiming to provide data for monitoring the progress of SDG and LNOB to date. But using multiple sources of data has numerous limitations and challenges. Each survey has its specific features. They differ in objectives, methodology, scopes, and periodicity, by which the data from each source is limited to their particular features. For instance, the NDHS mainly aims to provide a national aggregate on specific demographic and health indicators. It consists of data on

poverty and living standards at the national level. NMICS provides the national aggregate on maternal and child health and nutrition. By and large, such variation in objectives and scope in the data sources implies a limitation in data disaggregation.

### The COVID-19 Pandemic and Its Adverse Effects

Nepal reported the COVID-19 pandemic in January 2020. Three pandemic waves have struck Nepal, disrupting people's livelihoods. Travel restrictions, closure of services and institutions, restrictions in the operations of industries and enterprises, and disruptions in supply chains resulted from the lockdown, which was on and off. Between March 2020 and early 2022, people continued to adopt social distancing practices to curb the spread of the pandemic, which was compounded by a poorly administered COVID-19 vaccination program. The pandemic effects are not restricted to the health sector but also affect society's social, economic, and environmental spheres. Vulnerable populations, e.g., poor, disadvantaged, women, children, and people with disabilities, experienced multiple and disproportionate social and economic consequences. As a result, the pandemic exacerbated extreme poverty, discrimination, and injustice, and widening inequality, negatively impacting LNOB. In this regard, access to COVID-19 relief programs and facilities was denied to people without citizenship, and social distancing measures were utilized to justify discriminatory practices (GiHA-TT 2021).

The negative impacts of the pandemic on the labor market and microeconomic indicators could lead to an increase in poverty, injustice, discrimination, and inequalities in the medium and long term. During the pandemic, the shutdown of industries, enterprises, and businesses increased unemployment and job losses across Nepal. According to a survey conducted by Nepal Rastra Bank (NRB) during the lockdown in 2020, around 61% of industries and enterprises ceased operations, while 35% and 4% partially and entirely operated, respectively. On average, industries and enterprises laid off 22.5% of their workforce and lowered salaries by 18.2% (NRB 2020). In Nepal, three out of every five employees lost their jobs due to the COVID-19 pandemic, according to UNDP's (2020) rapid assessment. Increased underemployment and unemployment could knock on other areas, such as access to nutritious food, health care, and education (Pradhan et al. 2021). Workers in the informal sector have been hit harder by job losses and reduced income. Nonetheless, the informal sector in Nepal employs approximately 80.8% of the workplace (ILO 2021). Household income and employment of the bulk of workers representing poor, disadvantaged, and women labor in Nepal's informal sectors were disproportionately affected by the pandemic. This effect has increased income disparities and the gap between haves and have-nots.

According to a recent World Bank study (2022), job recovery for those who lost work during the pandemic was minimal, accompanied by job quality and earnings deterioration in Nepal. The pandemic's adverse labor market and microeconomic repercussions have continued to feed discrimination and inequalities in Nepali society, as evidenced by the slow job recovery. By 2030, the number of people

living in extreme poverty in low and middle human development countries will rise to 626 million under a "COVID Baseline" and 753 million under a "High Damage" scenario (Abidove et al. 2021).

UNESCO (2020) shows approximately nine million learners were directly affected by the closure of educational institutions due to the COVID-19 pandemic in Nepal as of July 2020. The shutdown of the educational institutions, compounded by a loss of household income, resulted in a digital divide and a rise in girl students dropping out of school. Using ICTs to facilitate alternative teaching and learning approaches has resulted in a digital divide between boys and girls within a household, between rich and poor, and between urban and rural areas (Pradhan et al. 2021). This divide harms the broader SDG objective for LNOB. The loss of household income negatively influenced the choice to return girl students to school who had been denied alternative teaching and learning. Moreover, school closure directly impacted children from low-income and disadvantaged families, depriving them of benefits and services such as free school meals, vaccinations, and textbook/stationery distribution. These impacts could have long-term implications regarding inequalities and discrimination.

Many women were trapped at home with abusive family members in an environment of heightened tension, abetted by depleted family resources, increased care burden, loss of livelihoods, return of migrant family members, fear of infection, and uncertainties about the future (GiHA-TT 2021). As a result, the nonpharmaceutical responses to the COVID-19 pandemic have escalated domestic violence and gender inequality and discrimination in Nepal. The shutdown of complaint reporting mechanisms and police efforts to implement social distancing measures increased the backdrop of gender-based violence, gender inequality, and discrimination. Moreover, women workers were at the forefront of job losses and reduced earnings. A 90.45% of women workers are employed in informal sectors (CBS 2019). These job losses and reduced earnings reinforced gender discrimination and inequalities. In Nepal, the three outcomes of the COVID-19 pandemic – job losses and reduced income, educational institutions closure, and increased gender discrimination and inequality, have cascading implications on the overall SDG objective for LNOB in the longer run.

# **Conclusions**

The 2030 Agenda for Sustainable Development has prioritized "leaving no one behind" to achieve equality, social justice, and economic progress. Nepal has taken significant steps to integrate the LNOB principle of SDGs into its institutional structure and planning framework at all levels (See NPC 2022 and NPC 2020a). In light of this context, this chapter identified the furthest behind population in Nepal. It highlighted that women among the gender, rural areas among the place of residence, *Karnali* among the provinces, and *mountain* and *Tarai* among the ecological zones are falling the furthest behind in most indicators. Additionally, the furthest behind population is found to vary across the various indicators. *Madhesi Dalits, Muslims*,

*Madhesi*, and other caste groups in socioeconomic indicators, the residence of mountain and hill areas in distance-related indicators, and hill and *Madhesi Dalits* in discrimination-related indicators are the furthest behind.

From an LNOB perspective, Nepal has overall made slow progress in SDGs. Mainly, there is significant progress for SDG 1, 7, 8, 10, and 15, moderate progress for SDG 4, 6, and 12, slow progress for SDG 2, 3, 5, 16, and 17, reverse progress for 9 and 11, and no data for SDG 13. Resources crunch, lack of quality and reliable data, and adverse impacts of the COVID-19 pandemic are the main gaps and challenges in attaining the LNOB principle of SDG. Tracking SDG progress and identifying the population being left behind have been made more difficult by a lack of periodic and disaggregated data. Another significant challenge is the COVID-19 pandemic and its socioeconomic implications. These implications can potentially reverse the considerable progress made in SDGs. Job losses, reduced income, closure of educational institutions, and a rise in gender discrimination and inequality have long-term effects on the SDG's overall LNOB objective. Moreover, the pandemic undermined the LNOB objective of SDGs by aggravating severe poverty, prejudice, and injustice, and inequality. It has compounding effects on other gaps and challenges. It is anticipated that the long-term economic impacts of the pandemic will redirect the SDG budget, which is already limited, to repair the economic damages. Therefore, Nepal must implement appropriate measures or find a better solution to address these gaps and challenges if Nepal wants to make meaningful progress on SDG from the LNOB lens. Doing so will also rescue SDGs from failing (Pradhan 2023).

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### References

Abidoye B, Felix J, Kapto S, Patterson L (2021) Leaving no one behind: impact of COVID-19 on the sustainable development goals. United Nations Development Programme and Frederick S. Pardee Centre for International Futures, New York/Denver, viewed 01 June 2022. https://data.undp.org/wp-content/uploads/2021/04/Leaving-No-One-Behind-COVID-impact-on-the-SDGs-second-flagship-2.pdf

Acharya K, Paudel YR, Dharel D (2019) The trend of full vaccination coverage in infants and inequalities by wealth quintile and maternal education: analysis from four recent demographic and health surveys in Nepal. BMC Public Health 19(1673). https://doi.org/10.1186/s12889-019-7995-3

- Awale S (2021) Lesson not learned from 2015. Nepali Times. Downloaded on 12th June 2022. https://www.nepalitimes.com/banner/lessons-not-learned-from-2015/#:~:text=Tripadma% 20and%20Padmodaya%20were%20both,1%2C468%20are%20still%20under%20construction
- CBS (2011) National population and housing census 2011. National report, CBS, Kathmandu, viewed 8 July 2022. https://unstats.un.org/unsd/demographic-social/census/documents/Nepal/Nepal-Census-2011-Vol1.pdf
- CBS (2019) Report on the Nepal labour force survey 2017/18. Central Bureau of Statistics (CBS)-Nepal, Kathmandu, viewed 28 May 2022. https://cbs.gov.np/wp-content/upLoads/2019/05/Nepal-Labour-Force-Survey-2017 18-Report.pdf
- CBS & UNICEF (2020) Nepal multiple indicator cluster survey 2019: survey findings report. CBS and UNICEF, Kathmandu
- Childs A (2015) Why Nepal needs to get children back to school. World Economic Forum, viewed 12 June 2022. https://www.weforum.org/agenda/2015/05/why-nepal-needs-to-get-children-back-to-school/
- CIAA (2020) A study of the corruption at the local level. CIAA, Kathmandu, viewed 15 June 2022. https://ciaa.gov.np/publications/2
- Gender in Humanitarian Action Task Team (GiHA-TT) Nepal (2021) GESI mainstreaming in COVID-19 response: building upon lessons learned and good practices in 2020, Gender equality update 31.GiHA-TT, Nepal, viewed 25 May 2022. https://un.org.np/sites/default/files/doc\_publication/2021-06/GE%20Update%2031.pdf
- Gurung YB, Pradhan MS, Shakya DV (2020) State of social inclusion in Nepal: caste, ethnicity and gender, Evidence from Nepal social inclusion survey 2018. Central Department of Anthropology, Tribhuvan University, Kirtipur, viewed 25 September 2022. http://anthropologytu.edu.np/ wp-content/uploads/2021/07/STATE-OF-SOCIAL-INCLUSION-IN-NEPAL\_CASTE-ETH NICITY-AND-GENDER.pdf
- International Labour Organization (ILO) (2021) Social protection responses COVID-19 in Nepal. ILO, Kathmandu, viewed 19 May 2022. https://www.ilo.org/wcmsp5/groups/public/%2D%2D-asia/%2D%2D-ro-bangkok/%2D%2D-ilo-kathmandu/documents/publication/wcms 809272.pdf
- Jackson C (1999) Social exclusion and gender: does one size fit all? Eur J Dev Res 11(1):125–146
  Khadka NS (2015) Nepal's forests under threat over fuel crisis. BBC World Service, viewed 12 June 2022. https://www.bbc.com/news/science-environment-34468821
- Manandhar P (2017) Nepal earthquake and human trafficking. New Spotlight, viewed 13 June 2022. https://www.spotlightnepal.com/2017/07/09/nepal-earthquake-and-human-trafficking/
- Ministry of Education (MOE), United Nations' Children Fund (UNICEF) & United Nations Educational, Scientific and Cultural Organization (UNESCO) (2016) Global initiative on out of school children-Nepal country study. UNICEF, Kathmandu, viewed 12 June 2022. https://www.unicef.org/nepal/sites/unicef.org.nepal/files/2018-07/All%20children%20in%20school-report%202016.pdf
- Ministry of Finance (MOF) (2020) Economic survey 2019/20. MOF, Kathmandu, viewed 12 June 2022. https://www.mof.gov.np/uploads/document/file/Economic%20Survey%202019\_20201125024153.pdf
- Ministry of Health (MoH)-Nepal, New ERA, & ICF (2017) Nepal demographic and health survey 2016. Ministry of Health-Nepal, Kathmandu, viewed 28 May 2022. https://www.dhsprogram.com/pubs/pdf/fr336/fr336.pdf
- Ministry of Health and Population (MOHP) (2020) Strategy for skilled health personnel and skilled birth attendants (2020–2025). MOHP, Kathmandu, viewed 13 June 2022. https://www.nhssp.org.np/Resources/SD/Strategy%20for%20Skilled%20Health%20Personnel%20and%20Skilled%20Birth%20Attendants%202020-2025.pdf
- National Human Rights Commission (NHRC) (2017) Trafficking in person: national report 2015/ 16. NHRC, Lalitpur, viewed 13 June 2022. https://www.nhrcnepal.org/uploads/publication/ TIP National Report 2015 2016.pdf

Nepal Rastra Bank (NRB) (2020) A survey report on economic impact of COVID-19 pandemic. NRB, Kathmandu, viewed 01 June 2022. https://www.nrb.org.np/contents/uploads/2020/08/Survey-Report-onCOVID-Impact-Final.pdf

- NPC (National Planning Commission) (2015) Nepal earthquake 2015: post disaster needs assessment, Vol. B: sector reports. NPC, Kathmandu, viewed 05 June 2022. https://www.npc.gov.np/images/category/PDNA volume BFinalVersion.pdf
- NPC (National Planning Commission) (2017a) National review of sustainable development goals. NPC, Kathmandu, viewed 05 June 2022. http://sdg.npc.gov.np/media/resources/items/19/bNational Review of Sustainable Development Goals.pdf
- NPC (National Planning Commission) (2017b) Sustainable development goals status and roadmap: 2016–2030. NPC, Kathmandu, viewed 30 May 2022. https://policy.asiapacificenergy.org/sites/default/files/Sustainable%20Development%20Goals%20Status%20and%20Roadmap% 202016-2030%20%28EN%29.pdf
- NPC (National Planning Commission) (2018) Need assessment, costing and financing strategy for sustainable development goals. NPC, Kathmandu, viewed 30 May 2022. https://www.npc.gov.np/images/category/SDGs Costing Final Version.pdf
- NPC (National Planning Commission) (2020a) Sustainable development goals progress assessment report 2016–2019. NPC, Kathmandu, viewed 30 May 2022. http://sdg.npc.gov.np/media/resources/items/0/bSustainable\_Development\_Goals\_Progress\_Assessment\_Report\_2016-2019.pdf
- NPC (National Planning Commission) (2020b) National review of sustainable development goals. NPC, Kathmandu, viewed 27 May 2022. https://npc.gov.np/images/category/SDG\_Review\_Report 2020.pdf
- NPC (National Planning Commission) (2020c) The fifteenth plan, Fiscal year 2019/20–2023/24. NPC, Kathmandu, viewed 13 June 2022. https://npc.gov.np/images/category/15th\_plan\_English\_Version.pdf
- NPC (National Planning Commission) (2021) Nepal multidimensional poverty index: analysis towards action. NPC, Kathmandu, viewed 29 May 2022. https://npc.gov.np/images/category/MPI Report 2021 for web.pdf
- NPC (National Planning Commission) (2022) National framework for leave no one behind, NPC, Kathmandu, viewed 13 December 2023. https://npc.gov.np/images/category/231120105645LNOB %20UPDATED%20REPORT-Sept%203%202023%20updated.pdf
- Paudel G, Bishwokarma D, Paudel NS (2015) Government decision on relaxing chure timber supply to address post-earthquake reconstruction demand: a sensible decision for just a gesture? Forest Action Nepal, Kathmandu, viewed 13 June 2022. http://www.forestaction.org/app/ webroot/vendor/tinymce/editor/plugins/filemanager/files/POlicy%20Briefs/Policy%20Brief% 2036.pdf
- Paudel D, Jeuland M, Lohani SP (2021) Cooking-energy transition in Nepal: trend review. Clean Energy 5(1):1–9
- Pradhan P (2023) A threefold approach to rescue the 2030 agenda from failing. Natl Sci Rev 10(7): nwad015. https://doi.org/10.1093/nsr/nwad015
- Pradhan P, Subedi DR, Khatiwada D, Joshi KK, Kafle S, Chhetri RP et al (2021) The COVID-19 pandemic not only poses challenges, but also opens opportunities for sustainable transformation. Earth's Future 9:e2021EF001996. https://doi.org/10.1029/2021EF001996
- Sharma S, Baidya M, Poudel P, Panthi SR, Pote-Shrestha RR, Ghimire A, Pradhan SP (2021) Drinking water status in Nepal: an overview in the context of climate change. J Water Sanit Hyg Dev 11(6):859–866
- Shrestha PM (2019) Corruption rampant in local governments: anti-graft body. The Kathmandu Post, viewed 15 June 2022. https://kathmandupost.com/valley/2019/01/31/corruption-rampant-in-local-governments-anti-graft-body
- The Global Child Nutrition Foundation (GCNF) (2019) School meal feeding program report: Nepal. GCNF, Seattle, viewed 12 June 2022. https://gcnf.org/wp-content/uploads/2021/01/CR Nepal 07 2020.pdf

- UNESCO (2020) Global monitoring of school closures caused by COVID-19. UNESCO, Dataset, viewed 14 May 2022. https://en.unesco.org/covid19/educationresponse#schoolclosures
- United Nations (UN) (2016) Leaving no one behind: the imperative of inclusive development report on the world social situation 2016. UN Department of Economic and Social Affairs, New York, viewed 27 May 2022. https://www.un.org/esa/socdev/rwss/2016/full-report.pdf
- United Nations Children's Fund (UNICEF) (2020) Social protection budget brief. UNICEF, Kathmandu, viewed 16 June 2022. https://www.unicef.org/nepal/media/13261/file/Social% 20Protection%20-%20Budget%20Brief.pdf
- United Nations Development Programme (UNDP) (2018) What does it mean to leave no one behind? A UNDP discussion paper and framework for implementation, UNDP, New York, viewed 26 September 2022. https://www.undp.org/sites/g/files/zskgke326/files/publications/ Discussion Paper LNOB EN Ires.pdf
- United Nations Development Programme (UNDP) (2020) Three in five employees lost their jobs due to COVID-19 in Nepal. UNDP News, viewed 01 June 2022. https://www.undp.org/nepal/news/three-five-employees-lost-their-jobs-due-covid-19-nepal
- United Nations Sustainable Development Group (UNSDG) (2022) Operationalizing leaving no one behind: good practice note for UN country teams. https://unsdg.un.org/resources/leaving-no-one-behind-unsdg-operational-guide-un-country-teams
- Upreti BR, Upreti D, Ghale Y (2020) Nepali women in politics: success and challenges. J Int Women Stud 21(2):76–93
- Walker T, Kawasoe Y, Shrestha J (2019) Risk and vulnerability in Nepal: findings from the household risk and vulnerability survey 2016–2018. World Bank Group, Kathmandu
- Warchold A, Pradhan P, Kropp JP (2020) Variations in sustainable development goal interactions: population, regional and income disaggregation. Sustain Dev 29(2):285–299
- World Bank (2022) Nepal development update. World Bank Group, Kathmandu, viewed 01 June 2022. https://documents1.worldbank.org/curated/en/099835004122242158/pdf/P1774360498cd407a09a4d0e5860fd8fc84.pdf
- Yadav UK, Ghimire P, Amatya A, Lamichhane A (2021) Factors associated with anemia among pregnant women of underprivileged ethnic groups attending antenatal care at Provincial Level Hospital of Province 2, Nepal. Anemia 2021:8847472, 9 pages. https://doi.org/10.1155/2021/ 8847472