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Use of remittance and Coronavirus pandemic in Nepal

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Abstract

Remittance based economy of Nepal has been badly affected by the Corona virus pandemic. In this study, we analyze the household and social level use of remittance by the remittance recipient households before and after the pandemic. We adopted cross-sectional study design to collect data from 777 randomly selected respondents residing in Chautara Sngachwokgadhi (Mountain region), Galkot(Hill) and Mithila (Tarai) municipalities in Nepal. We used a reliable questionnaire tool having 0.8 cronbachalpha, and we visited the respondents from 6th June- 18th October 2022. The study found that the remittance recipient households have good access to households, educational, financial and health facilities. A significant amount of remittance also has been used to donate to the youth club, medical treatment seeker, school/college and community level (public moral hazard) after the Coronavirus pandemic. Remittance and agriculture were the major source of family income in each ecological region. However, remittance has failed to increase agriculture production and distributions (domestic household hazard) and also failed to increase entrepreneurship development in the local levels. This study can be a reference for developing evidence-based policies for minimizing public moral hazard and domestic household hazards caused by remittance in developing countries like Nepal.

Keywords: remittance, use of remittance, household welfare, Coronavirus pandemic

Introduction

Remittances are essentially foreign currency sent by those who are residing in destination countries. About US$ 654.33 BN remittance has been remitted to the home country by about 272 million (two-thirds being labor migrants) remitters in 2019 (WB, 2020a). Remittance flows are estimated to have increased by 5 per cent to USD 831 billion in

2022 and are projected to increase by a small 1 per cent to USD 840 billion in 2023 (Ratha *et al.,* 2023).Indian Diaspora was the largest in the world, with over 15.6 million NRIs sending remittances over US$ 111 BN in 2022. Other four top recipients' countries were US$ 61 BN to Mexico, US$ 51 BN to China, US$ 38 BN to Philippines and US$ 30 BN to Pakistan (WB, 2023).The global remittance has increased 10 percent to US$ 689 BN, including US$ 528 BN to the least developing nations (IoM, 2019).

Nepal is the third among the nations with the largest percentage of remittances received in terms of GDP (NRB, 2019). In FY 2018, Nepal received US$ 2,227 MN remittance from Qatar followed by Saudi Arabia (US$ 2,039 MN), India (US$ 1,337 MN), the UAE (US$ 136 MN), Kuwait (US$ 301 MN), Malaysia (US$ 745 MN), South Korea (US$ 45 MN) and Bahrain (US$ 16 MN) respectively (Sigdel, 2022).The country received US$ 8.1 BN remittance (28% of GDP) in FY 2018/19 (NLMR, 2020). The country has allowed 172 countries for individual initiative and 110 countries on an institutional basis for foreign employment. As of the Mid-March 2022, 878 manpower companies were granted permission to deploy employees abroad for employment. However, according to the distribution of migrant workers' skill levels, 59% of Nepali workers are unskilled or low skilled (MoLESS, 2021), who primarily work in the industries of construction (21.1%), manufacturing (17.3%), hotels (9.3%), security services (7.0%), and housekeeping and cleaning (16.6%) (NAFEA, 2021). The majority of female migrant workers are employed as housemaids and other unskilled laborers (CSLM, 2021). Total of 190,000 Nepali youths (172,000 M & 18,000 F) have gone for foreign employment in FY 2019/20 (MoF, 2021). In an average, about 1,750 young people leave the country every day (DoFE, 2017).

Remittance based economy throughout the world, are being adversely affected by the spread of the Coronavirus pandemic. As of 15 August 2023, total 693, 577, 624 cases have been confirmed, with total death cases 6, 907, 807 due to Coronavirus pandemic, (Worldometer, 2023a).The Coronavirus Pandemic provided a significant shock which started plunging some nations into severe economic recessions. In 2020, officially recorded remittance flows to low- and middle-income countries reached US$ 540 BN, only 1.6 percent below the US$ 548 BN seen in 2019. It was projected to fall by 7 percent, to US$ 508 BN remittance flows to low and middle-income countries (LMICs) in 2020 (WB, 2020b, Press release no: 2021/054/SP).

Nepal is an economically growing country located in South Asian region. HDI value of the country has been upgraded from 0.380 to 0.587 rise of 52.6 percent between 1990 and 2018 (UNDP, 2019). Remittance has been becoming one of the major sources for upgrading HDI value. During the last five years, remittance helped to contribute

about two-thirds of gross foreign exchange earnings (NRB, 2021). From 2002 to 2021, remittance inflows to Nepal have increased at an average annual rate of 17.2 percent (NRB, 2021). However, it was identified 1,003,398 cases suffered from Coronavirus Pandemic till 15th August 2023. Out of that 991,322 cases were recovered with treatment, however, alarming death rate was with 12,031 death cases (Worldometer, 2023b). The economy was expected to growth by 7.7 percent in 2020 but the growth was reached only 0.6 percent in 2021 from 0.2 percent growth of 2020, after exceeding 6 percent each year over the previous five years (WB, 2020c). The economy of the country has been severely impacted by the Coronavirus pandemic (Bhattarai & Baniya, 2020). More so, share of remittance in GDP was downsized up to 21 percent, 14 percent, or 7 percent respectively, in case of declining its size by 25 percent, 50 percent or 75 percent respectively in FY 2020 (Chaudhary, 2020). Around 25 percent of Nepali migrants were working abroad—about 1,425,000—had lost their jobs as a result of a slowdown in economic growth, particularly in the Middle Eastcountries. Due to the Coronavirus pandemic, about 280,000 Nepali migrant workers lost their work in these nations (ILO, 2020a). The Nepal Association of Foreign Employment Agencies reports that between 10 and 30 percent of Nepali workers' jobs in Malaysia and the Gulf countries had been reduced (Shrestha, 2020).

Latest statistics in Nepal shows that around one-fifth of the total population which is about 6 million migrant workers are in foreign countries,and on an average 1750 migrant workers leave the country per-day for foreign employment (NRB, 2021). And of the total households, almost 55.8 percent households receive remittances (NLMR, 2020) but the large portion of remittance is not invested in the productive sectors. The data shows that 23.9 percent of remittance is spent toward household consumption and only 1.1 percent invested in productive activities (NRB, 2019). The scenario was even worse a decade ago. Out of total remittance received, 78.9 percent was spent in daily consumption, 7.1 percent in repayment of loans, and 4.5 percent in buying household property, 3.5 percent in education, and around 2.4 percent investing in capital formation (CBS, 2011). These facts indicates that massive portion of remittance is being used in unproductive areas by Nepali households. Ebeke (2012) also argues that remittance creates a moral hazard for the general population by separating the state from the general population. It also creates a moral hazard for households since people quit working yet still choose to migrate.

In this background, use of remittance at the household and social levels before and after the mobilization of work place knowledge and skills of the remitters (brain gain) in own country and encouraging the productive use of remittance by remittance recipient households (turning remittance into investment) during Coronavirus pandemic, have

been less prioritized by the academia and policy makers in Nepal. Therefore, this study has attempted to compare use of remittance at household and social levels before and after the Coronavirus pandemic in Chautara Sangachwokgadhi, Galkot and Mithila municipalities located in Nepal's Mountain, Hill, and Tarai regions respectively.

Methods and materials

Study site

The present study was conducted in Chautara Sangachowkgadi, Galkot and Mithila municipalities located in Mountain, Hill and Tarai regions. Chautara Sangachowkgadi municipality of Sindhupalchwok (7°46' N 85° 42' E) has 14559 total HHs and 51347 total population with average family members 3.57, gender ration 84.32 and active age population 28736(55.96%). It has a total 165.25km^2 land area including farming land 100.61 km^2, forest land 34.74 km^2. Agriculture and remittance are major sources of households' income (CSM, 2019). Galkot municipality of Baglung (**28°13'24"N 83°25'29"E**) has a total of households 6863 and total population 39277 with average family members 5.76, gender ratio 104.35 and active age population 25631(65.25%). It has a total of 194.39 km^2 land including 122.92 km^2 forest land and 53.84 km^2 farming land (GM, 2019). Mithila municipality of Dhanusha (**26°**52' 15''N 86° 1' 30'' E)has 7434 total households and 41030 total populations with average family members 5.52 and active age population 23916(58.29%). It has 181.90 km^2 total land including 134.96 km^2 forest land, 32.51 km^2 farming land and 0.012 pasture grass land (MM, 2019).

Field survey and statistical analysis

The study used cross sectional survey (Gupta & Gupta, 2015) to collect data from randomly selected 777 remittance recipient households from 1229 remittance recipient households (Krejcie & Morgan, 1970) residing in two wards of the municipalities. (5 & 14 of Chautara Sangachwokgadhi, 6 & 7 of Galkot and 6 & 8 of Mithila). We used highly reliable self-administered survey questionnaires having 0.88 cronbach alpha value (Cohen *et al.,* 2007). The statistical tools such as frequency, percent, min-max, mean, standard deviation, correlation and paired sample t test have been used for analyzing collected data. Hence, the numerical description of sample respondents and findings derived from the study has helped to generalize to the whole population.

Results and discussion

Characteristics of the remittance recipient households

Of the total 777 respondents, 301(38.70%) were represented from Galkot, of HHs followed by Mithila 252 (32.40%), and Chautara Sangachwokgadhi 224 (28.80%).Male-headed HHs accounted for 501 (64.50%) while there are 276 (35.50%) female-headed

HHs. The majority 670 (86.20%) of the HHs are belong to Hindu religion followed by Buddhist 79 (10.20%), and Christian 14 (1.80%). Similarly, the highest 326 (42.00%) HHs are Brahmin/Chhetri which is followed by Janajati 286 (36.80%) HHs, and Dalit 165 (21.20%) HHs.

The education level with the highest 311 (40.00%) respondents seem primary level followed by 161(20.70%) secondary or intermediate level, 150(19.30%) lower secondary, and 131(16.90%) illiterates. The data indicates that majority of respondents had completed education up to the primary level and significant proportion of the surveyed population lacked formal education.

The status of irrigated land area ($\bar{x}$ 9.21 Ropani; σ26.90) and rain-fed land area ($\bar{x}$ 2.36 Ropani; σ 3.27) indicating a moderate average land area for cultivation. The distributions are positively skewed (6.35 for Khet and 1.95 for Bari) as well. In the case of family food sufficiency, less than 3 months category represents 192(24.70%) of the respondents, indicating that a significant portion of individuals reported having poor food sufficiency. The 3-6 months category accounts 189(24.30%) of the respondents. This suggests that a similar proportion of individuals reported having food sufficiency for a slightly longer period compared to the <3 months. Approximately 172(22.10%) of the respondents reported having food sufficiency for 6-9 months. This indicates a notable proportion of individuals who reported having a relatively longer period of food sufficiency. The 9-12 months category represents 121(15.60%) of the respondents reported having food sufficiency for a substantial period. The category of individuals reporting having food sufficiency for more than 12 months accounts for 88(11.30%) or extended time period.

Characteristics of the remitters

The majority 693 (89.20%) of the respondents reported having only one remitter whereas 82 (10.60%)of the respondents mentioned having two remitters. The largest, 296(38.10%) proportion fell within the age group of 25-31 which is followed by 245 (31.50%) age group of 32-38, 103 (13.30%) age group of 39-45, 97 (12.50%) age group of 18-24 and 36 (4.60%) age group of >45 years. The majority 703 (90.50%) of respondents are receiving remittance from male remitter which is followed by 53(6.80%) with both male and female remitter. The highest 630 (81.10%) of the remitters are married followed by 136 (17.50%) unmarried and 11 (1.40%) being married and living together. of the total, 370 (47.60%) of the remittance recipient households reported that the remitters had participated in orientation training followed by 160(20.60%) legal advisory, 153 (19.70%) language, 104 (13.40%) waiter/waitress training and 99 (12.70%) vocational training respectively. Scaffolding, culinary, and security training occupied the sixth, seventh, and eighth ranks, respectively, with percentages ranging

from 6.90% to 10.80%. The electricity and cleaning training categories held the ninth and tenth ranks, each reported by 51 (6.60%) and 41 (5.30%) of respondents, respectively.

Among the salary ranges, the largest segment of remitters, accounting for 40.41 percent of the respondents, falls within the salary range of 30,000 to 49,000. The next highest-ranked category is the salary range of 50,000 to 99,000, which represents 24.32 percent of the remitters. The salary range of 100,000 to 299,000 ranks third in terms of percentage, with 22.65 percent of the remitters falling within this category. The salary range of less than 30,000 ranks fourth in terms of percentage, with 9.534 percent of the remitters falling into this category. The smallest segment in terms of percentage is the salary range of over 300,000, with only 3.089 percent of the remitters falling into this category. Japan is the most popular destination, accounting for 19.6 percent of the total remitters. Qatar and Saudi Arabia are also significant destinations, with 18.9 percent and 16.7 percent of remitters sending money from there, respectively. Following closely is Dubai, with 15.4% of the remitters choosing it as their foreign country of choice. Other prominent countries include Malaysia (12.0%), India (4.8%), and Romania (2.8%), showing a diverse range of preferred foreign countries for remittance purposes. Several countries, such as Australia, Bahrain, Kuwait, and Korea, have smaller but still notable percentages of remitters sending money from these locations. On the other hand, some countries, like Germany, Israel, Malta, Oman, Poland, Portugal, the UK, and the USA, have a minimal percentage of remitters originating from them.

Effect of Coronavirus pandemic

Table 1 presents information about effect of Coronavirus pandemic among the remitters. Among the remitters, 388(49.90%) have been quarantined at home after returning from abroad, while 227(29.20%) did not undergo home quarantine. Around 259(33.30%) of the remitters were admitted to an isolation center after returning from abroad, while 307(39.50%) did not require admission to an isolation center. Among remitters who traveled abroad, 377(48.50%) reported suffering from COVID-19 but having a normal condition. A smaller proportion, 31(4.00%) suffered severely from COVID-19, and 178(22.90%) did not suffer from the virus. Among remitters' villages, 114(14.70%) reported being quarantined at home, while 454(58.40%) did not undergo home quarantine in their village. In the village setting, 32(4.10%) of the remitters were admitted to an isolation center, while 518(66.70%) did not require admission to such a facility. The results also shows that the likelihood of good preventive practices in the fight against Coronavirus pandemic was influenced by knowledge (Alghanem et al., 2021) and attitudes (Nguyen et al., 2021) of the remitters and remittance recipient households. Finally, highest 186(55.85%) of the migrants have returned for > 12 months, followed by 84(25.22%) for 6 months and 63(18.91%) for < 6 months. A small

proportion 27(3.50%) of the remitters have started self-employment after returning to their home country, indicating their entrepreneurial endeavors. However, the majority 315(40.50%) have not yet started self-employment.

Table 1

Pandemic related information

		Frequency	Percent
Aborad_home_ quarenteened_44.1	Yes	388	49.90
	No	227	29.20
Abroad_admitted_ isolation_center_44.2	Yes	259	33.30
	No	307	39.50
Abraod_suffered_ COVID_44.4	Normal	377	48.50
	Severely	31	4.00
	Not suffered	178	22.90
Village_home_ quarentineed_44.7	Yes	114	14.70
	No	454	58.40
Village_admitted_ isolation_center_44.8	Yes	32	4.10
	No	518	66.70
Village_suffered_ COVID_44.10	Normal	294	37.80
	Severely	23	3.00
	Not suffered	254	32.70
Returned and staying in home before and after pandemic	>12 months	186	55.85
	6 months	84	25.22
	<6 months	63	18.91
	>12 months	186	55.85
Started self/employment after returning	Started	51	15.31
	Not yet started	282	84.68
Total		777	100.00

Source: of family income

Table 2

Family income from different sources

Family income	N	Range	Min	Max	$\bar{X}$	Σ
Agriculture_50.1	777	20000000	0	20000000	161943	1046771
Micro_entreprises_50.2	777	300000	0	300000	1943	21080
General_wholesale_shop_50.3	777	700000	0	700000	10437	58157
Agricultre_wages_50.4	773	600000	0	600000	12976	55965
Nonagriculture_wages_50.5	777	400000	0	400000	10586	51278
Job_government_50.6	777	500000	0	500000	13539	75101
Job_private_udhyog_50.7	777	500000	0	500000	33359	100609
Foreign_employment_50.8	777	20000000	0	20000000	732693	1278644
Pension_social_security_50.9	777	1000000	0	1000000	13859	103980

Table 2 provides diverse sources of income for the families. "Foreign employment" takes the top spot having the highest average income at NRs. 732,693. This highlights the significant role of foreign employment in generating income for these families. Agriculture (161,943), private jobs (33,359) and pension (13,859) ranks second, third and fourth respectively. This indicates that social security programs also play a supportive role in family income. Government jobs claim the fifth spot with 13,539 average income. General wholesale shop (10,437), semi-government (3,680) secures seventh and eighth position. "Others" takes the tenth position, with families earning income from various other sources having an average income of NRs. 3,454. This category includes diverse miscellaneous sources of income. "Micro enterprises" lands twelfth, as families involved in micro-enterprises earn an average income of NRs. 1,943. This indicates that these small-scale businesses contribute to family income, though to a lesser extent.

Use of remittance at household and social level

This section includes information related to household and social level use of remittance before and after pandemic by the remittance recipient households. More specifically, 14 paired items and 8 paired items were developed for measuring household expenditure and social level expenditure respectively. Table 4 highlights mean differences between household level expenditure before and after Coronavirus pandemic. A paired samples t-test showed that mean differences of daily household consumption, investment in local shop/business, investment in microenterprises and cultural function found 25005.15($t= -3.87$, $p <0.05$), 3049.61 ($t= -3.04$, $p <0.05$), 7518.63($t= -2.37$, $p <0.05$)and 7374.31($t= -2.14$, $p <0.05$) respectively. All these differences are also found significant at 95 percent and 99 percent significant level. Likewise, mean differences for clothing, purchasing land, purchasing animal and agricultural technology, and purchasing electronic devices were found 3483.87, 28630.63, 51818.02 and 2681.20 respectively and not significant. This means the respondents are compelling to expense and invest more amount in this category after Coronavirus pandemic.

Table 3 highlights mean differences between social level expenditure (philanthropy) before and after Coronavirus pandemic. A paired samples t-test showed that mean differences of youth club, medical treatment, school/college, and community found 2009.94($t= -2.49$, $p <0.05$), 1104.90,($t= -5.87$, $p <0.05$), 246.78 ($t= -2.31$, $p <0.05$)and 309.51($t= -1.88$, $p <0.05$)respectively. All these differences are also found significant at 95 percent and 99 percent significant level. Likewise, mean differences for mother group, rural road, found 3483.87, 28630.63, 51818.02 and 2681.20 respectively but not significant. This means the respondents are compelling to expense and invest more amount in this category after Coronavirus pandemic.

Table 3

Paired samples test for household level

Expense of Remittance Before and After Coronavirus Pandemic		Paired Differences				t	df	Sig. (2-tailed)
		Mean expenses	Mean	Std. Deviation	Std. Error Mean			
Pair 1	Before_pandemic_daily_consumption_51.1_A	39266.75	25005.15**	179611.42	6447.67	-3.87	775	0.00
	After_pandemic_daily_consumption_51.1_B	64271.90						
Pair 2	Building_construction_maintenence_51.2_A	75842.17	-33683.05	533072.88	19173.29	-1.75	772	0.07
	Building_construction_maintenance_51.2_B	42159.12						
Pair 3	Clothing_luxrious_goods_51.3_A	22281.29	3483.87	55853.54	2006.31	1.73	774	0.08
	Clothing_luxrious_goods_51.3_B	25765.16						
Pair 4	Education_training_51.4_A	46690.01	-950.06	109634.62	3948.39	-.24	770	0.81
	Education_training_51.4_B	45739.94						
Pair 5	Medical_treatment_51.5_A	28713.95	-3915.38	99648.24	3598.08	-1.08	766	0.27
	Medical_treatment_51.5_B	24798.56						
Pair 6	Repaying_loan_credit_amount_51.6_A	257560.56	-89368.10	2627225.15	94311.88	-.94	775	0.34
	Repaying_loan_credit_amount_51.6_B	168192.39						
Pair 7	Purchasing_land_gold_51.7_A	116598.45	28630.63	1811156.94	64974.89	.44	776	0.66
	Purchasing_land_gold_51.7_B	145229.08						
Pair 8	Purchaing_animal_agricultrue_technology_51.8_A	2163.87	51818.02	1436900.48	51614.98	1.00	774	0.31
	Purchasing_animal_agriculture_technology_51.8_B	53981.93						
Pair 9	Local_shop_business_51.9_A	1952.31	3049.61**	27865.81	1000.32	-3.04	775	0.00
	Local_shop_business_51.9_B	5001.93						
Pair 10	Microentrepreneurship_development_51.10_A	1962.67	7518.53*	88210.43	3164.53	-2.37	776	0.01
	Microentrepreneurship_development_51.10_B	9481.20						
Pair 11	Saving_51.11_A	136162.02	-2756.17	698948.17	25204.71	.10	768	0.91
	Saving_51.11_B	133405.85						
Pair 12	Cultural_functions_celebration_51.12_A	33631.51	7374.31**	95395.68	3435.59	-2.14	770	0.03
	Cultural_function_celebration_51.12_B	41005.83						
Pair 13	Travel_visit_pilgriamge_51.13_A	20170.14	-3322.68	86496.70	3123.21	-1.06	766	0.28
	Travel_visit_pilgrimage_51.13_B	16847.45						
Pair 14	Purchased_electronic_devices_51.15_A	108860.10	2681.20	386681.35	13872.11	.19	776	0.84
	Purchased_electronic_devices_51.15_B	111541.31						

Table 4

Paired samples test for social level

Philanthropy before and after Coronavirus Pandemic		Paired Differences				t	df	Sig. (2-tailed
		Mean	Mean	Std. Deviation	Std. Error Mean			
Pair 1	Before_pandemic_mother_group_52.1_A	174.67	6.847	1444.60	51.92	.13	773	0.89
	After_pandemic_mother_group_52.1_B	181.52						
Pair 2	Youth_club_52.2_A	1512.79	2009.94*	22423.58	805.99	-2.49	773	0.01
	Youth_club_52.2_B	3522.73						
Pair 3	Medical_treatment_52.3_A	1050.83	1104.90**	5238.96	188.18	-5.87	774	0.00
	Medical_treatment_52.3_B	2155.74						
Pair 4	School_college_52.4_A	192.65	246.78**	2975.81	106.82	-2.31	775	0.02
	School_college_52.4_B	439.43						
	Micro_hydro_52.5_B	7.72						
Pair 5	Rural_raod_52.6_A	450.45	-64.35	4582.68	164.40	-.39	776	0.69
	Rural_raod_52.6_B	386.10						
Pair 6	Community_building_52.7_A	416.99	309.51**	4571.18	163.99	-1.88	776	0.05
	Community_building_52.7_B	726.51						
Pair 7	Religious_function_doantion_52.8_A	1205.69	-28.46	3416.16	122.87	-.23	772	0.81
	Religious_function_doantion_52.8_B	1234.15						
Pair 8	Temple_gumba_construction_52.9_A	1091.67	71.60	3866.19	139.50	.51	767	0.60
	Temple_gumba_construction_52.9_B	1163.28						

Discussion

In the study area, most of the youths from Mountain and Hill regions are involved in foreign employment for their family livelihood and career development. Therefore, remittance has brought brain/labor drains problem in Nepal. Brain/labor drain refers to the emigration of the skilled/unskilled manpower who offer their expertise in another country. Such problems are higher in developing countries compared to developed and middle-income countries. The study conducted by Docquier and Marfouk (2006) demonstrates that the scale of brain drain has been exceptionally large in recent years. For instance, in 2000, more than half of the skilled migrant population from Africa, 41

percent from Asia, and 34 percent from Latin America chose to leave their home countries. Nepal is currently facing the imminent loss of its young and potential workforce on a regular basis (Silwal, 2019). Very few female and male youth are working in foreign employment comparing to Mountain and Hill regions. Labor migration from Nepal is predominantly male dominated, with female migrant workers accounting for only about 5% (MoLESS, 2020). However, Bhandari (2018) adds remittance significantly empower the Nepali women in business entrepreneurship in small and cottage-based industries in Nepal.

Most of the youth from the Mountain and Hill regions are involving in construction, cleaning and hotel management sectors. In terms of training categories, this study showed that orientation was the most common, with 47.60% (370 cases) of remitters reporting participation in such training. However, financial literacy training ranked last, with only 1.20% (9 cases) of remitters having undergone such training. Nepalese carpenters, masons, and other artisans face challenges in competing with skilled workers from the Philippines, Thailand, South Korea, and India. It is crucial to enhance their technical competence. Nepalese trade unions and the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) can establish training and counseling centers at the district level, focusing on the rights and needs of workers and addressing the demands of potential labor-importing countries (Shrestha, 2008).

Most of the youths from Tarai region are involved in electrician and driving sector. The local level is offering capacity/skill development training as well as orientation and counselling services to the youths before joining foreign employment. Migrants holding semi-skilled and unskilled positions in restaurants and factories also find employment as domestic workers, security guards, and maids (Kharel & Kharel, 2020). Local government from Mountain and Hill regions are establishing institutional cooperation with Pravasi Nepali Society. Remittance and migration management practices are performing better in Mountain and Hill regions compared to Tarai region.

Remittance is becoming a priority source of family income in Hill and Mountain regions. According to the NLSS III (2010/11), 56 percent of Nepalese households receive remittances, with one in every two rural households receiving such support (CBS, 2011). Majority of the remittance recipient households are following Hindu religion. Majority of the remittance recipient households are male-headed and completing primary education. Male are holding the largest portion of land ownership. Remittance recipient households possessed farmland but only 22.40 percent have both farm land

and paddy filed. Less than three months' family food sufficiency was reported by 24.70 percent of respondents.

Japan is the most popular destination to the total remitters of Hill region whereas Qatar and Saudi Arabia are also significant destinations for youths from Mountain and Tarai regions. This suggests that these countries attract a significant number of remitters, possibly due to employment opportunities and favorable economic conditions. Out of the 110 destination countries for labor migration, Qatar, the UAE, Saudi Arabia, Kuwait, and Malaysia are the top five destinations (MoLESS, 2020). The most prevalent reason for migration was the lack of employment opportunities and the smallest segment of remitters' monthly salary range of over NRs. 300,000. A few households receive suggestions from remitters on how to save remittance effectively and how to engage in charitable activities. The main forms of investment tend to be focused on children's education, reinvestment for future migration, and lending money (Shrestha, 2008). The majority of the emitters have not yet made any plans to become entrepreneurs, but some remitters are planning to return to their own country permanently.

Majority of the remitters were suffered from Coronavirus pandemic and also admitted to an isolation center after returning from abroad. The most 186 (55.85%) of the migrants have returned for > one year followed by 84 (25.22%) for six month and 63 (18.91%) for <6 months. Around half 333-household reported that their remitters were returned back to home before and after Coronavirus pandemic whereas 98 household reported returning after Coronavirus pandemic. Nepali youth compelled to live and work in the crowded camps and workplaces without proper protective measures, they feel at risk (Mandal 2020e, Nepal *et al.,* 2020). Despite their expectation of returning to their pre-pandemic employment, most of them lost their jobs and income sources due to COVID-19 restrictions (Ghimire *et al.,* 2022). Internal migrant workers experienced negative changes in personal and family lives since the stay-at-home order. More so, 597 Nepali youths died during foreign employment in FY and 2019/20 which was increased by 754 death cases in FY 2020/21 (MoF, 2020, 2021). Very few numbers of remitters started self-employment/employment after returning to home country. Pasa and Bishwokarma (2020) reveal that remittance is investing in commercial vegetable farming in 1 to 10 Ropani land and earning monthly NRs. 5000-19000 in Mulabari village of Galchhi located in Dhading District.

After pandemic, out of 674 industry owner and businessman belonging to 52 districts, 61% business were completely closed and 39% full and partially opening 96.7%

entrepreneurs' production and business decreased by 73.80 % (NRB, 2020). Out of 674 industry owner and businessman belonging to 52 districts, around 70% of the entrepreneurs suggested government to provide loan in 5% interest rate for providing full time job to their employees (NRB, 2020). Some migrants have returned back again to foreign employment, and some are in the process of returning. Musoke *et al.,* (2021) disclose that the domestic migrant workers were less likely to get economic support, expect to borrow money during COVID-19, experience negative changes in their personal lives, and expect the COVID-19 contraction. The research exposed long-standing vulnerabilities of migrant workers and identified immediate actions from Nepalese Central, Provincial, and Local governments to address their needs.

Globally, remittance has a vital role in rural development. For example, in the eighth largest remittance-recipient countries in Latin America and the Caribbean, remittance is becoming primary source of the 22 percent households (CEMLA, 2020). Even in Nepal, remittance becoming led sector of national economy. In the past decade, the volume of financial remittances has increased significantly from US$2.54 BN in 2010 to US$ 8.79 BN in 2019 (MoLESS), 2020) and, in terms of GDP equivalence, Nepal is now the fifth-most remittance-dependent economy in the world (WB, 2020c). By using the dataset of 40 years from 1980 to 2019 and the remittance inflow pattern during the COVID-19 pandemic (2020-2021) in Nepal, Aryal (2022) confirms that remittance has worked as disaster relief to smooth consumption and compensate for income to low-income Nepalese families during the pandemic. Withers *et al.,* (2021) COVID-19 has disrupted the flow of international remittance that many South Asian economies depend upon. This 'remittance shock' is likely to catalyse a downturn in foreign exchange earnings, worsen structural unemployment and threaten the welfare of millions of low-income families throughout the world. The pandemic has also affected the services, manufacturing, trade, supply chain, and particularly the small businesses in South Asian countries (Khan *et al.,* 2022).

Remittance helped to increase family income in the study area. It has increased their expenditure capacity and improving their family livelihoods. Therefore, it has a positive and significant impact on various household expenditures, including food, housing, education, and health. Remittances. Remittance helped to reduce family poverty and social exclusion. Remittance-receiving households tend to allocate more funds towards consumption, health, and education compared to households that do not receive remittances (Thapa & Acharya, 2017). Remittances had a strong and statistically significant impact on poverty reduction and economic growth in Pakistan (Javid, Arif

& Qayyum, 2012). However, remittances also generate benefits for the community and social levels. Remittance is not only investing at household level but also investing at social level to implement different infrastructure development projects related to health, education, road and rural energy in Myagdi (Pasa, 2019).

In this study, after the pandemic, very few numbers of remitters started self-employment/ employment after returning back to home country. Loan repayment remains a priority, while allocation for local shops or business purposes is relatively lower to the returnee migrants and most of the remittance recipient households. The daily household consumption and cultural celebration expenditures have significantly been increased annually after Coronavirus pandemic. And remittance recipient households are also donating significantly to the youth club, medical treatment seeker, school/college, and community level (public moral hazard) after Coronavirus pandemic. Remittance recipient households have good access to households' facilities like drinking water, sanitation and health services. Multiple studies have documented the utilization of remittances for improving living standards, including studies by Ashwani (1999), Wahidin (1989), Seddon *et al.,* (1999), and the Department of Women Development (2003). Accordingly, impact on the increased number of non-agricultural products is relatively lower as remittance has failed to increase agriculture production and distributions (domestic household hazard) and failed to increase entrepreneurship development in the local levels.

Conclusion

The study concludes that the Coronavirus pandemic has been anomalously affecting the remittance-based economy of Nepal. Remittance and migration management practices are performing better in Mountain and Hill regions compared to Tarai region. Migrant workers are establishing institutional cooperation with Pravasi Nepali Coordination Committee and also becoming serious to address foreign employment and remittance related issues.

The study concludes that impact of remittances on family income is perceived to be the highest. Remittance helped to increase family income, helped to improve family economic situation and livelihood, helped to reduce family poverty and social exclusion, helped to create self-employment/employment, and help to upgrade rural economy in the study area. However, many remitters report not receiving suggestions for the productive use or saving of remittances. A significant proportion of remitters have not yet pursued international employment, made plans for permanent return, or considered becoming

entrepreneurs. The highest family income is associated with foreign employment, while loan repayment is a prominent use of remittances. Hence, transparent governance practices related to remittances and national level investments are considered important for rural development. More importantly, it is important to note that remittance has negatively impacted agricultural growth and farm production. In these scenarios,there are more research opportunities such as: How effectively government can implement migration as a development stimulus? How effectively government can apply remittance as an alternative strategy (economic and non-economic) for rural development.

Policy implication

In Nepal, a large portion of remittance is spent in daily consumptions because of low agriculture production. Hence, central and local government jointly develop and implement agriculture transformation plans for more productivity. The central government needs to implement resource management plan for proper utilization of forest and land resources. There is a provision to supply skilled workers in the international labor market, semi-skilled workers in domestic urban centers and unskilled workers in domestic local hinterlands. Sufficient technical and logistic support must be provided to the skilled workers. Local government needs to develop and implement human resource development and management. So, more priority must be given to high production and productivity. Local government needs to motivate remittance recipients' households to invest in the production sector and motivate them to consume local products. These governments can establish institutional cooperation with Non-residency Nepali society for generating skilled migrant workers. These governments can engage the returnee migrant workers involved in rural entrepreneurship programs. Remittance recipient households having barren land and not involving in farming activities need to be penalized. The daily household consumption and cultural expenses are increasing significantly after Coronavirus pandemic. Hence, local government needs to provide financial literacy training to the remittance recipient households.

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