

Migration, Remittance Inflow and Economic Growth of Bangladesh

A.H.M. Rakibul Mawla¹ Dr. Firoja Akter Khanam²

1. Associate Professor, Dept. of Statistics, The Chittagong University.

2. Associate Professor, Dept of Finance, The Chittagong University, Email: fa.khanam@yahoo.com

Abstract

Bangladesh, being one of the top remittances –recipient countries in the World has drawn attention to the remittance–output relationship in recent years. In 2014, remittances contributed to 8.2% of GDP of Bangladesh while the contribution was 6.7 % in 2006. This study investigates the relationship between migrant’s workers remittance and economic growth in Bangladesh. The study covers time series data from 1975 to 2016. Econometric tests Unit root test, Johansen cointegration test and Granger causality model were employed to accomplish the study. The result finds that there is a long run positive relationship between migrant workers’ remittances and economic growth. The findings have important policy implications to augment international migration which will provide a vent for growing labor force and reduce the increasing unemployment rate and also lead to long run economic development through enhanced remittance earning thereby help ensure macro economic stability.

Key words: Migration, Remittance Inflow, Unit Root Test, Johansen cointegration test, Granger causality model.

1. Introduction

Migration from Bangladesh to the rest of the world is not a new incidence. Bangladesh has a long history of migration and overseas remittances since 194. Bangladesh like other South-Asian countries is in a situation of surplus manpower with a combination of professional skilled, semi-skilled and less skills labor force. The World Bank report titled Migration and Development Brief April, 2016 finds that Bangladesh attained the 8th position in 2015 among the world’s top ten remittance earner countries and 3rd in South Asian region. India is the World’s top most remittance earners country followed by China, Philippines, Mexico, Nigeria, Egypt, and Pakistan. Though Bangladesh is in 6th position among world’s top 10 manpower exporter countries its remittance earning is 6.8 percent of the countries GDP.

At least two factors can be responsible for faster growth in remittances in developing countries. First in the past 20 years, immigration has increased dramatically between developing and developed countries (World Bank, 2007). Second due to technological improvements the transfer costs for the international transfer of payments between individuals have decline. Also some credits go to the successive government of Bangladesh since late 1990s for growing flow remittance to Bangladesh as the government of Bangladesh was taken some macro economic reforms (Bangladesh Bank Annual Report, 2016) like opening of new exchange house source countries, expansion for drawing arrangement, setting and annual remittance threshold, close monitoring and supervision of banks, speeding up of deceiver to the beneficiaries, surveillance measures, under the Money Laundering Prevention Act.

During the last decade remittance had become a major source of external fund surpassing the volume of FDI and ODA that the country received. For the year 2014-15, worker's remittance is 9 times higher than FDI and 25 times higher than portfolio investment and 4 times higher than ODA in Bangladesh. So workers remittance is a major source of foreign exchange earnings and these large inflows of remittances have enormous effects to the Bangladesh economy.

Migration plays a vital role in the national economy mainly in two major ways, Finally, it reduces unemployment and secondly migration results in remittance flows for the country. Remittance has become an importance aspect for developing countries like Bangladesh for socio economic advancement. Remittance has a significant role to maintain balance of payment and to enrich foreign currency reserve. It has also a great contribution in Gross Domestic Product (GDP) of the country. It is important to note that the government plays an important role in the out-migration of Bangladeshi workers. The Emigration Ordinance of 1982 is the key regulatory instrument used by the government with respect to migration. However several statutory regulatory orders and framed rules introduced subsequently have played complementary or supplementary roles to this instrument. Five government ministries are involved in international labor migration (i) the Ministry of Expatriates Welfare and Overseas employment that was created in 2001. (ii) the Ministry of Home Affairs (iii) the Ministry of Foreign Affairs (iv) the Ministry of Finance and (v) the Ministry of Civil Aviation and Tourism (Siddique, 2004). The first of these five ministries is primarily responsible for the migration sector and it pursues the twin goals of creating employment opportunities overseas and addressing problems experienced by expatriates to ensure their well being. Under this ministry, the Bureau of Manpower Employment and Training (BMET) is the executive agency responsible for a wide variety of functions ranging from control and regulation of migrant workers and resolving legal disputes. The Bangladesh missions abroad also play an important role in labor migration by performing the following tasks exploration of potential labor market, (ii) attestation of recruitment documents (iii) Consular Services to Bangladeshi workers and (iv) ensuring the welfare of migrant workers.

2. Importance of Remittance vis-a-vis other macro economic variables

An interesting way to analyze the dynamic of remittances is to observe the trend lines of remittances as a share of key macro economic variables such as export, program (ADP). etc. The contributions of remittances as presented in table-1 provide an idea about the relative importance of remittances vis-a-vis to key macro economic variables and the variation of this importance overtime. It is observed that remittances in Bangladesh as a percentage of most of key macro economic variables showed upward trend during the period from 2012-2017. It is found in 2017 remittance inflow is 5.17 percent of country's GDP, 49.2 percent of total export earnings and 29.4 percent of import payments.

Table-1: Remittance as Percentage of GDP, export and Import and its Growth

FY	Remittance as % GDP	Remittance as % Export Earnings	Remittance as % of Import payments	Growth % of Remittance
FY07	7.51	49.60	38.54	29.50
FY08	8.64	55.93	40.62	32.39
FY09	9.44	62.11	47.70	22.28
FY10	9.52	67.80	46.29	13.40
FY11	9.05	50.64	34.61	6.03
FY12	9.63	53.58	38.59	10.24
FY13	9.64	54.43	43.67	12.51
FY14	8.21	47.78	38.91	-1.61
FY15	7.85	49.08	40.67	7.64
FY16	6.74	43.59	37.42	-2.51
FY17	5.17	49.22	29.36	-14.48

Source: Policy Analysis Unit, Bangladesh Bank (June, 2007)

3. Literature Review

Ali (1981) identifies that remittances help for favorable balance of payment. Stahl and Habib (1989) showed the multiplier effect of remittances in economics. They explain the remittances increase savings which increase the growth through multiplier even they educated the multiplier for Bangladesh for the period of 1976-1988. The value of multiplies is 1.24. Chami et al (2000) find that remittances have negative effects growth in their study on 113 countries. Mahmud (2003) claims that remittances faster growth in Bangladesh. Adams and Page (2005) studying 71 developing countries finds that remittances significantly reduce the level, depth and severely poverty in developing world. An IMF (2005) finds no statistical link between remittances and per capita output growth studying in 101 developing countries. Hasan (2006) explains remittance has significant macro economic impact at household level and the poorer the household, the more impact or benefits remittance income can have alleviating poverty. Zeisemer (2006) argues that remittances increase investment by decreasing interest rate of literacy.

Jongwanich (2007) finds that remittances have a positive but marginal impact on economic growth in Asia and Pacific countries. On the other hand, Pradhon et al. (2008) find a positive impact an growth in their work with 39 developing countries over the 1980-2004 Periods. Vargas-Silva et al. (2009) using data for more than 20 Asian countries for the 1988-2007 sample find that a 10 percent increase in remittances as share of GDP leads to a 0.9-1.2 percent increase in GDP growth. On the other hand, Barajas et al. (2009) find that remittances have no impact on economic growth. According to Catrinescu et al (2009) although remittances have increased so many times but research has not come to a conclusion whether remittances have a positive or negative impact or long run growth. Hence country specific studies become necessary. The studies on Bangladesh in particular are few in numbers. Raihan et. al. (2009) show that remittances have positive effects on the economy and they reduce poverty. Ahmed (2010) claims remittances flow to has been statistically significant but has negative impact on growth. Siddique et al (2010) investigate the causal link between remittances and economic growth in three countries. Bangladesh, India and Srilanka, by employing the Granger Causality Test under a VAR framework using time series data over a 25 year period and they found that growth in remittances does lead to economic growth in Bangladesh.

Paul and Das (2011) find a long run positive relationship between remittance and GDP. But there is no evidence on remittance-led growth in the short run. Ahmed et al (2011) empirically examine the impact of remittances,

exports, money supply on economic growth in the context of Pakistan using bound testing approach and find that remittances have a positive impact on economic growth of Pakistan in both the long run and short run. Das and Chowdhury (2011), using panel co integration and pooled mean group (PMG) approach, they find a positive long run relationship between remittances and GDP in 11 developing countries. However, the magnitude of the remittance-GDP co-efficient is rather quite small.

4. Objectives of the study

The main objective of the study is to evaluate the relationship between remittance inflow and economic growth of Bangladesh. To achieve the main objective the following specific objectives have been covered:

1. To assess the Migration Status in Bangladesh.
2. To examine the position of remittance inflow in Bangladesh.
3. To investigate the relationship between remittance inflow and economic growth of Bangladesh.

5. Methodology of the Study

The research is mainly based on secondary data which has been collected from various issues of Statistical Year Book of Bangladesh, Statistical Pocket Book, Bangladesh Economic Review published by the Ministry of Finance (MOF), Economic Trends of Bangladesh bank, World Development Indicators (WDI) published by World Bank(WB) and the like. In addition , laws and ordinances , books ,articles, published dissertations were also studied. The data that will be used for the study is annual time series data and covers the period of 1975 - 2017.To interpret the data ,descriptive as well as empirical analysis has been conducted. Some statistical techniques such as mean, regression analysis , test of hypothesis (t-test and F-test) and time series Analysis (least Square Method) were used when and wherever appropriate. For econometric analysis , the advanced econometric software E-views (version 7.1) and also the statistical software SPSS version 17 have been used. In order to examine the long-run relationship among the variables some econometric techniques such as unit root tests, Johansen's (1990) test of cointegration and Granger causality tests have been used.

6. Migration Pattern

Prior to the World War II, a substantial migration had taken place from Bangladesh to Burma which was then a thriving economy. During the 1950s and 1960s, bangladeshi workers migrated abroad especially to UK and obtained British citizenship by naturalization after staying four to five years. Also a limited number of Bangladeshi workers had taken up employment in Saudi Arabia and Qatar mostly by individual initiatives during 1960s. However, after the independence of Bangladesh in 1971, pattern of workers migration changed dramatically. Several delegations from Middle east visited Bangladesh to recruit workers between 1972 and 1975.

In terms of skill composition of the short term migrant workers from Bangladesh, professional workers like doctors, engineers, teachers and nurses constituted less than 5 percent in 2004 and this ratio has drastically dropped to almost in 2008 skilled workers such as manufacturing or garment workers, drivers, computer operators and electricians accounted for about 32 percent and semi skilled workers like tailors and masons accounted for another 16 percent of the total migrants in 2008. Unskilled workers accounted for the rest (about 52 percent). Most of the short terms are male and the female migrant workers accounted for. Less than 2 percent in 2008. this ratio about 5 percent during 2005-06. There are government restrictions on migration of female workers. Further according to a survey conducted by Sharma and Zamal (2009), the average duration of

employment for the migrant workers is 6 years. They also find that migration increases with age and the level of education, and then declines beyond a threshold (44 years of age and 9 years of education). In addition, families with land holdings are more likely to migrate than do landless families. This is not unrealistic, as there is high upfront cost associated with migration.

An analysis of the migration data since 1976 reveals that around 80% of all labor migration from Bangladesh is directed towards Middle Eastern Countries. Most popular destination in the middle East is Saudi Arabia (with 2.6 million migrants). Saudi Arabia is followed by the UAE (with about 2.34 million migrants) and Kuwait (More than 4.89 million migrants). has been the main destination with officially more than 711,000 Bangladeshi migrants during the same period. Singapore and South Korea receive a significant number of Labour migrants as well.

The origins of migration to industrialized countries mainly to UK and the US can be traced back to the colonial period from the eighteen century onwards. During the 1950s and 1960s, Bangladeshi workers migrated abroad, especially to the UK and obtained British citizenship by naturalization after staying four to five years. Also a limited number of Bangladeshi workers had taken up employment in Saudi Arabia and Qatar mostly by individual initiatives during 1960s.

Table:2% Share in Total Migrant Workers

Saudi Arabian:	38.17%
UAE	23.55%
Malaysia	10.37%
Kuwait	7.11%
Oman	5.35%
Singapore	4.15%
Bahrain	2.84%
Qatar	2.31%
Libya	1.23%
Others	4.92%

Fig: International Migrant Workers from Bangladesh by country of Destination (in Percentages) 1976-2015

Table-3 Year wise Migration 1976-2016

Year	Number	Year	Number	Year	Number
1976	6087	1987	74017	2003	2995956
1977	15725	1988	68121	2004	254190
1978	22809	189	101724	2005	272958
1979	24495	1990	103814	2006	250702
1980	30073	1991	147131	2007	881516
1981	62762	1992	188124	2008	880600
1982	59220	1993	245508	2009	875055
1983	56714	1994	186326	2010	475278
1984	77694	1995	187543	2011	300700
1985	68658	1996	211714	2012	561300
1986	69659	1997	231077	2013	630000
		1998	367667	2014	510321
		1999	268180	2015	430314
		2000	276701	2016	520301
		2001	299681		
		2002	188965		

Source: Bureau of Manpower employment and Trainers (BMET)

7. Overseas Employment by Skill Group:

A large number of Bangladeshi expatriates are less/unskilled and stood at 37.55 lakh during 2001 to 2016. The number of skilled expatriates stood at 24.14 lakh during the same period. The relative compositors of skills is changing overtime Base on professions expatriates are categorized in to four groups-professionals, skilled semi skilled and less skilled. It is revealed for data on skill-group wise overseas employment during 1976 to 2016 shows that the highest number (49 percent) of expatriates are unskilled followed by skilled (32.5 percent), semi-skilled (15.2 percent) and professional (2.2 percent). In 2016, only 0.61 percent of the migrated work force was professional, followed by skilled (42.1 percent), unskilled (40.1 percent), and semi-skilled (15.83 percent).

Table-4 Category wise Migration from 1976-2016

Year	Workers Categories				Total
	Professional	Skilled	Semiskilled	Less Skilled	
2001	5940	42742	30702	109581	188965
2002	14450	56265	36025	118516	225256
2003	15862	74530	29236	134562	254190
2004	12202	110177	28327	122252	272958
2005	1945	113655	24546	112556	252702
2006	925	115468	33965	231158	381516
2007	675	165338	18373	482922	832609
2008	1864	292364	132825	448002	875055
2009	1426	134265	84517	255070	475278
2010	387	90,621	20016	279678	390702
2011	432	96000	20076	286743	431202
2012	1564	244364	145825	448002	326152
2013	1326	134265	84551	255321	430314
2014	390	91,621	21016	269678	510321
2015	456	95000	23076	276743	460317
2016	18202	213177	29327	292252	520301

Source: Bureau of Manpower employment and Trainers (BMET)

8. Country wise Female Migration:

It is observed from the table that in July-September 2017 quarter the number of female migrants suddenly decreased. During this period about 23.6 thousand Bangladeshi female workers have been migrated abroad for employment which is 31.3 percent lower and 12.4 percent higher than the previous quarter and the same quarter of 2016 respectively. Among the total female migrants 62.2 percent migrated to KSA, followed by Jordan (21.7 percent) Oman (7.5 percent), UAE (2.7 percent), Qatar (2.6 percent), Lebanon (1.6 percent) and Singapore (0.1 percent). The remaining 1.6 percent migrated to other countries.

According to Bangladesh Bank report 5.74 lakh female workers migrated for overseas employment from 1991 to 2016, whereas, the total number of overseas workers stood at 96.29 lakh during the same period. So the percentage share of female workers in total overseas workers is very insignificant (5.97 percent) due to various social and cultural barriers. However, the global demand for some occupations belonged to women (nurse, maid servant etc) is increasing in the recent years. So Government may take necessary initiatives to fulfill the demand for overseas female workers through Ministry of Expatriates Welfare and Overseas Employment (MOE & OE) and Bangladeshi Diplomatic Missions in abroad private recruiting agencies may play an important role in this context.

Table-5 Trend of Country of Female Migration

Year	KSA	UAE	Oman	Qatar	Bahrain	Lebanon	Jordan	Malaysia	Singapore	Others	Total
July-Sep 16	11986	666	2097	721	6	404	4880	0	25	207	20992
Oct-Dec 16	15660	1075	2722	921	8	447	5360	0	20	323	26604
Jan-mar 17	20723	942	2821	867	12	448	4354	7	32	194	30405
April-June 17	23021	883	2566	977	7	466	6209	6	21	208	34464
Jul-Sep 17	14681	627	1770	622	0	377	5118	3	33	365	23596
Growth (Jul-Sep 17) Over April-Jun 17	-36.2	-29.0	-31.0	-36.3	-100	-19.1	-17.6	-50.1	5.71	75.5	-31.3

Source: Bureau of Manpower Employment and Training Bangladesh

9. Remittance Inflow of Bangladesh

Remittance now form an important part of household livelihood strategies. The remittances sent by the migrant workers have grown overtime. It has increase from US\$ 1217.06 million (1995-96) to US\$ 1097.00 million (2009-2010). The cumulative receives from Bangladesh migrants during 1976-2110 stood at around US\$ 78.67 billion. Bangladesh maintained a healthy growth in remittances through the formal channel. The trend of remittances has accelerated in recent years from \$ 2.07 billion in 2001 to \$ 11.00 billion in 2010, an average growth of 43 percent per annum, even in global financial meltdown. The oil rich Middle Eastern Countries with more than 80 percent of the total stock of Bangladesh migrants accounts for a lioness share of remittances. The following table shows the year wise remittances from 1991 to 2010.

10. Country wise Remittance Inflows:

It is observed that about two lakh and foreign thousand Bangladeshi have migrated to abroad during July-September 2017 for employment which is significantly lower (12. percent) than the previous quarter. It is also revealed that most (51 Percent) of Bangladeshis have migrated to KSA during July-September, 2017, followed by Malaysia, (16.1 Percent) Oman (7.1 Percent) Qatar (5.8 Percent), Kuwait (5.7 Percent), Jordan (2.4 Percent) Lebanon (0.7 Percent), Bahrain (0.6 Percent), UAE (0.4 Percent) and other countries (5.0 Percent)

Table-6 Country wise Migration (in Number)

	July-September, 2016	July-September, 2017
KSA	19823	110124
UAE	934	774
Kuwait	13580	12224
Oman	42898	15436
Qatar	23030	12547
Bahrain	24510	1277
Lebanon	3229	1608
Jordan	4911	5262

The table-6 respondents the flow of remittance in Bangladesh during the period 1976 and 2016. As evident, the country has experience a rising trend of remittance flow with exceptions. The remittance received by Bangladesh in 1976 was only US\$23.71 million. It jumped to US \$82.79 in 1977 and continued to increase until 1983. The remittance showed a downward trend during the next couple of year. During the period 1984-1991, remittance flow showed downward trend and remarkable fluctuations. However, remittance earning is in the increasing trend day often day with the rising labor migration flow.

Table-7 Flow of Remittance in Bangladesh during 1976 to 2017 (in million\$)

Year	Remittance Earned	Year	Remittance earned	Year	Remittance earned
1976	23.71	1990	781.54	2004	3565.31
1977	82.79	1991	769.30	2005	4249.87
1978	106.90	1992	901.97	2006	5484.08
1979	172.06	1993	1009.09	2007	6568.03
1980	301.33	1994	1153.54	2008	8979.00
1981	304.88	1995	1201.52	2009	10720.20
1982	490.77	1996	1355.34	2010	11004.73
1983	627.51	1997	1525.03	2011	12168.09
1984	500.00	1998	1599.24	2012	14163.99
1985	500.00	1999	1806.63	2013	18979.00
1986	576.20	2000	1954.95	2014	19720.20
1987	747.60	2001	2071.03	2015	21004.73
1988	763.00	2002	2847.79	2016	22168.09
1989	757.84	2003	3177.63	2017	24163.99

Source: Bangladesh Association of International Recruiting Agencies, 2017, ILO, 2017.

Country wise Remittance Inflows:

Table-8 Major-country wise share (%) of Remittance inflows in Total Remittance Inflows July-September 2017

KSA	17.46%
UAE	15.18%
USA	14.19%
Malaysia	7.05%
Kuwait	5.37%
Oman	6.78%
UK	7.61%
Others	26.36%

Source: Bangladesh Association of International Recruiting Agencies, 2017, ILO, 2017.

It is revealed that during July-September 2017, amount of remittance has been received from KSA (USD 591.99 million) which is 17.5 percent of total remittance inflows, followed by UAE (15.2 percent), USA (14.2 percent), United Kingdom (7.6 percent), Malaysia (7.1 percent), Oman (6.8 percent), Kuwait (5.4 percent and other countries (26.4 percent).

In 2015 India remained the largest recipient of officially recorded remittances in the world and received about \$ 70 billion followed by China around \$ 60 billion and Philippines \$ 25 billion, while Bangladesh as the 8th largest remittances recipient.

Table-9 Most 10 Remittances recipients countries, 2019.

	\$ in Billion
India	70
China	60
Philippines	25
Mexico	22
Nigeria	21
Egypt	17
Pakistan	15
Bangladesh	14
Vietnam	11
Ukraine	10

Source: World bank Migration and Development, Brief, April, 2014.

11. Relationship Between Remittance Inflow and Economic Growth of Bangladesh

Table: 10 exhibits the summary of descriptive statistics for the selected variables under study. We have examined 38 yearly observations of all the variables to estimate the following statistics.

Table-10 Summary of descriptive statistics

	lnRem	lnGDP
Mean	5.932	2.45610
Median	3.6909	2.2200
Maximum	6.765	6.00.72979
Minimum	1.6910	0.334680
Std.Dev.	1.05910	0.45333
Skewness	-0.199214	-0.470707
Kurtosis	2.54271	2.402747

From Table-10, we observe that the average value of lnGDP is higher than lnRem . Here, Std. Dev. Measures the dispersion or spread of the series. The maximum and minimum statistics measure the upper and lower bounds of the variables under study. The skewness measures whether the distribution of the data is symmetrical or asymmetrical. Here, negative skewness value of the variables indicates that the data series have a left tail. Overall, calculations indicate that all the variables are not normally distributed and are characterized as leptokurtic and skewed.

12. Test of Stationarity

Table-11 displays the estimates of the Augmented Dickey–Fuller (ADF) test in levels and in first differences of the data with an intercept. The tests have been performed using the MacKinnon Critical Values (MacKinnon, 1996) and assumed the identical null hypothesis of unit root in the data series. The lag length was determined using Akaike Information Criterion (AIC) (Akaike, 1974).

Table-11 Results of the Unit Root Test

Variables	Null Hypothesis	Level	First Differences
lnRem	lnRem has a unit root	-1.748921*	-3.905587**
lnGDP	lnGDP has a unit root	0.199495*	-6.617691**
Critical values at 1% level		-3.6394073	-3.6394073
Critical values at 5% level		-2.951125	-2.951125
Critical Valuesat10% level		-2.614300	-2.614300

**indicates lnMs2,lnGDP and lnPriceare non-stationary at their levels and **indicates the variables becomes stationary at their first differences at 1%,5%, and10% level.*

The results indicate that all the variables are not stationary in their levels. On the other hand, all data are stationary at their first differences at 1 per cent, 5 percent and 10 percent level of significance and therefore indicating that all variables are integrated of order 1, i.e., I(1).

Johansen Cointegration Results and long- run Equilibrium Relationship

Johansen's Cointegration methodology has been applied to identify the long run equilibrium relationship among the variables under study. In this case, after identifying the optimum lag length based on Schwarz Information Criterion (Schwarz, 1978), the level data has been used directly into the cointegration test as it is not required to make the series into stationary data. The test of cointegration has been performed assuming a linear deterministic trend and an optimum lag length of 1.

At first, a trace statistic has been used to test the null hypothesis of r cointegrating vectors against the alternative of r or more cointegrating vectors. The trace test indicates the presence of one cointegrating equation at the 0.05

level.

Another important test to identify the number of cointegrating vectors is testing the statistical significance of max eigenvalue statistics. This test also reveals the identical result that there is one cointegrating vector among the variable. Based on the above two tests, we came to know that there is one cointegrating equation among those variables. Now, we show the results of Johansen Cointegration test in Table-12 which is given below:

Table-12 Results of Johansen Cointegration test

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value
None*	37.28886	29.79707	23.19590	21.13162
At most 1	14.09296	15.49471	13.36561	14.26460
At most 2	0.727351	3.841466	0.727351	3.841466

Both the Trace test and Max-eigen test indicate 1 cointegrating equation at the 0.05 level.

* denotes rejection of the hypothesis at the 0.05 level

Therefore, the result provides evidence of a long-term equilibrium relationship between remittance inflow and GDP

13. Granger Causality Test

According to the representation theorem, if two variables are cointegrated then Granger Causality must exist in at least one direction. Therefore, we now test for the direction of causation between remittance inflow and GDP for the economy of Bangladesh during the period 1975-2016.

Table-13 Results of Granger Causality Test

Null Hypothesis	F-Statistic	Prob.	Decision	Type for Causality
lnGDP does not Granger cause lnRem	0.27098	0.6060	Accept H_0	No Causality
lnRem does not Granger cause lnGDP	12.0409	0.0014	Reject H_0	Uni -directional Causality

From the above Table-13, there is a unidirectional causality found between remittance inflow and GDP as null hypothesis that lnRem does not Granger Cause lnGDP is rejected.

14. Policy Implication

The government of Bangladesh has taken a number of initiatives to enhance the inflow of remittance in official channel and achieved some remarkable progress in the field of overseas employment. These include expansion of the labor market, increased women employment with female labor migration from lagging regions of the country, digitalization in migration management, enhancement of welfare activities for the expatriates and their families, established a specialized bank Expatriate Welfare Bank (Probashi Kallyan Bank) for the expatriates to provide soft loans, non-resident foreign currency deposits, US dollar premium bonds, full tax exemption for the remittance income and Overseas Employment and Migration Act 2013, to ensure strong and effective labor governance, better welfare services for expatriates, stopping harassment of workers by the middlemen, accountability, evaluation of the activities and penalize the recruiting agencies, and ensure legal assistance to

migrant workers. The following are some of the important specific areas where improvements can be made and contributions from remittances to promote economic growth can be enhanced.

1. The government should formulate an appropriate investment policy, so that productive sectors could be identified for the migrant workers to invest their remittance to the sectors.
2. The investment policy of government must also be well-suited with poverty Reduction Strategy Paper and National development Strategy Paper of Bangladesh.
3. The government must also ensure self-employment investment schemes to stimulate more direct investment in productive assets.
4. The government should encourage the greater use of official channels to send remittance. It will also be helpful for economic development. As Indian economic development already proved that the foreign earnings which come through a formal way automatically have a positive impact on economic development.
5. The Government should fix up the possible reasonable costs for migration in a transparent way by the Bangladesh overseas Employment and Services Limited.
6. The Government should be simplify the migration process for the female workers who are seeking overseas jobs.
7. The Government should also increase the number of female officials in Bangladesh mission, abroad, particularly in those countries where an increased number of Bangladesh women are working.
8. The government of Bangladesh should introduce foreign currency denominated bonds and repatriate foreign currency accounts that could be efficient tools to stimulate remittance flow to Bangladesh as India and Pakistan experimented with this policy initiative and achieved much success.

15. Conclusion:

Remittance inflows in the economy of Bangladesh are getting larger every passing year, matching with the increasing external demand for its manpower. The ensuing development impacts of remittances as a means of transfer of wealth, an socio economic factors are increasingly viewed with importance. Remittances have helped improve the social and economic indicators like nutrition, living condition and housing, education, health care, poverty reduction, social security and investment activities of the recipient households. The relative weight of remittances has also increased against most of the macro economic variables alongside the contribution to GDP. The econometric results reveal that there exist a statistically significant long run relationship between remittance and economic growth of Bangladesh. Remittance has helped Bangladesh to make investments for manufacturing expansion, modernize its agriculture and industries by importing high-tech machineries for export oriented manufacturing. Therefore, remittance can be an important source of investment and perform as a key driver of economic development for Bangladesh.

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