# CHAPTER I INTRODUCTION

1

# Background of Study

Remittance income in developing countries has become a lifeline for economic development. By remittances we mean sending income in terms of money or goods in home by the migrants or workers who have their earnings outside their home country. Nowadays, the sources of foreign income have been growing rapidly in each year in developing countries. Since long time in Nepal, many migrants have been transferring their income through the unofficial channels. Today with establishment of different agencies like Western union, International Money Express (IME) etc. in several district headquarters of the country, the remittance flows has become popular for transferring cash or money in time to the recipients. However, it is difficult to calculate the exact size of remittance flows in Nepal due to the emergence of unofficial channels even though it has recorded in balance of payments account. In this regard, it is estimated that unrecorded flows through informal channels are believed to be more than 50 percent of the recorded flows in developing countries (Ratha, 2005)

The history of remittance began after the British-India and Nepal war during 1814-16. Since then, Nepalese youths used to be recruited in the British national army (Thieme,2004). The volume of remittance increased only after 1995, when the civil conflict destroyed the local labor markets and people started looking for overseas employment. The political turmoil blocked the industrial expansion and halted plenty of small medium enterprises (SMEs) all over the country reducing job opportunities (Müller & Thieme , 2007). As a result, 250,000 people on averages leave the country annually in search of job since 2007 (MoF, 2011).

Remittances can generate a positive effect on the economy thorough various channels such as savings, investment, growth, consumption, and poverty and income distribution. At the national level, remittances contribute significantly to GDP. Remittances can also contribute to stability by lowering the probability of current

account reversals. Since they are a cheap and stable source of foreign currencies, remittances are likely to stem investor panic when international reserves are taking a downward trend or external debt is rising.

Over the past decades, worker's remittance have grown to become one of the largest sources of financial flows to developing countries, often dwarfing other widely- studied sources such as private capital and official aid flows. While it is undeniable that remittances have poverty-alleviating and consumption-smoothing effects on recipient households, a key empirical question is whether they also serve to promote long-run economic growth. This study tackles this question and addresses the main shortcomings of previous empirical work, focusing on the appropriate measurement and incorporating an instrument that is both correlated with remittances and would only be expected to affect growth through its effect on remittances. The results show that, at best, workers‟ remittances have no impact on economic growth. (Gaudel, 2009).

The Bank estimates that officially recorded remittances to low- and middle-income countries reached $466 billion in 2017, an increase of 8.5 percent over $429 billion in 2016. Global remittances, which include flows to high-income countries, grew 7 percent to $613 billion in 2017, from $573 billion in 2016. Remittance inflows improved in all regions and the top remittance recipients were India with $69 billion, followed by China ($64 billion), the Philippines ($33 billion), Mexico ($31 billion), Nigeria ($22 billion), and Egypt ($20 billion). Remittances are expected to continue to increase in 2018, by 4.1 percent to reach $485 billion. Global remittances are expected to grow 4.6 percent to $642 billion in 2018. Remittances to South Asia grew a moderate 5.8 percent to $117 billion in 2017**.** Remittances to many countries appear to be picking up after the slowdown in 2016. Remittances to India picked up sharply by 9.9 percent to $69 billion in 2017, reversing the previous year‟s sharp decline. Flows to Pakistan and Bangladesh were both largely flat in 2017, while Sri Lanka saw a small decline (-0.9 percent). In 2018, remittances to the region will likely grow modestly by 2.5 percent, to $120 billion. (World Bank, 2018)

Nepal ranks fourth in the world in terms of size of remittances inflow compared to the gross domestic product (GDP). It is the remittance that keeps the national economy afloat. Nepal received remittances worth Rs 699 billion ($6.56 billion) last fiscal year. This amount is, on an average, 20 per cent of the GDP. Every day on an average, 1,500 Nepalese migrate to overseas, mostly in Malaysia and the Gulf countries, for manual and unskilled jobs. A report released by the Ministry of Labor, Employment and Social Security, with the support from the International Organization for Migration (IoM), International Labor Organization (ILO) and The Asia Foundation states that during the past three years – 2015-16 to 2016-17 – Nepali migrants have registered nearly 7,500 complaints, including instances of fraud and malpractice during their recruitment and employment. The report says over half of all households have at least a family member currently working abroad or living at home as a returnee. IoM Nepal Chief of Mission Paul Norton has stressed the need for sound data and accurate analysis to formulate evidence-based policies and implement them effectively (THT, 2018).

# Statement of Problem

Worker‟s Remittance has been one of the major sources of foreign exchange earnings. Few years Nepalese worker‟s remittances are rapidly increasing. Despite a constant rise in remittance earning, the productive use of worker‟s remittances has been the matter of concern such as Industry, Hydropower, Agriculture and Tourism. While the direct economic impact of remittances to alleviate poverty is not much controversial, the non-securing consequence of remittance, such as impact on health ,education, gender issue, social participation, Worker‟s Remittance also affect the gross domestic product (GDP), consumption(C), saving(S), investment(I), government policies and foreign exchange reserve(FOREX). Since the study under consideration was concerned with contribution of remittance in Nepalese economy, so the study tries to answer the following questions

* + 1. What is the trend of worker‟s remittance income in Nepal?
		2. What is the trend of macroeconomic variables GDP, S, C, I and FOREX?
		3. What is the effect of worker‟s remittance on macroeconomic variables GDP, C, I, S and FOREX?

# Purposes of the Study

The main purpose of the study is to examine the impact of worker‟s remittance on GDP, C, I, S and FOREX and also find the flow remittance income of Nepal. The specific purposes of the research are as follows.

* + 1. To analyze the trend of worker‟s remittance income in Nepal.
		2. To study the trend of macroeconomic variables GDP, S, C, I, and FOREX.
		3. To examine the effect of worker‟s remittance on GDP, C, I, S and FOREX.

# Hypothesis of the Study

Keeping the objective of the study in view, the following hypothesis has been set:

1. There is no significant role of worker‟s remittances in the GDP of Nepal.
	1. There is significant role of worker‟s remittances in the GDP of Nepal.
2. There is no significant role of worker‟s remittances in the saving of Nepal.
	1. There is significant role of worker‟s remittances in the saving of Nepal.
3. There is no significant role of worker‟s remittances in the consumption of Nepal.
	1. There is significant role of worker‟s remittances in the consumption of Nepal.
4. There is no significant role of worker‟s remittances in the investment of Nepal.
	1. There is significant role of worker‟s remittances in the investment of Nepal.
5. There is no significant role of worker‟s remittances in the FOREX of Nepal.
	1. There is significant role of worker‟s remittances in the FOREX of Nepal.

# Significance of the Study

The role of workers remittance in economic development of recipient countries is considered to be an important area of research. Worker‟s Remittances have become an important source of foreign exchange earnings, saving, investment, consumption, predominantly from developed countries to developing countries. The availability of foreign exchange through worker‟s remittances has not only helped the recipient countries in achieving a reasonably high economic growth by reducing the current account deficit. It has also reduced their external borrowing as well as external debt burden. Worker‟s Remittance also increased the disposal income of the remittance receiving household so that their level of consumption, investment and life standard has also been increased. Worker‟s Remittance also has the role to decrease the severe poverty of Nepal. Particularly the study under consideration is significant due to the following points.

* + 1. This research is assumed to be useful for further researcher to conduct a research in this field.
		2. This research is helpful to government to provide guidance on the prudent use of those funds, and for developing countries to develop policies that will ensure that the growth is efficient and well planned.
		3. This research provides information for policy-makers in order to formulate wise policies to channel the remittance flows into productive investment.
		4. This research may be helpful in formulating suitable policy to divert remittance towards domestic investment to foster economic growth of Nepal.

# Limitations of the Study

This research will try utmost care to cover most of the important sector; but is still subject to limitation. Being a student, lack of the sufficient time and resources are the major limitation and other some limitations are as follows:

* + 1. The study is based on the effect of worker‟s remittance only on five macroeconomic variables i.e. Gross Domestic Product (GDP), Saving(S), Consumption(C), Investment (I) and Foreign Exchange

Reserve (FOREX).

* + 1. The money entering through illegal channels like Hundi and the money brought by the employee themselves especially from India are not included in the study.
		2. The data of remittance and other selected macroeconomic variables are taken from Nepal Rastra Bank (NRB), Economic Survey and Ministry of Finance (MOF) for the period of 1984/85 to 2016/17 AD.

# Chapter Plan

**Chapter I: Introduction**

This chapter includes background of the study, statement of the problem, purpose of the study; significance, hypotheses as well as limitations included of the study.

# Chapter II: Literature review

This chapter deals with the theoretical review, theory of remittances, theories of growth, review of previous national and international studies and research gap of study.

# Chapter III: Research methodology

This chapter deals with a research design, population and sample, source of data, data collection and processing procedure and data analysis tools and techniques.

# Chapter IV: Result

This chapter fulfills the purposes of the study by presenting the data and analyzing them with the help of various statistical tools and techniques followed by methodology.

# Chapter V: Conclusion

This chapter deals with the summary, conclusion and implication for the improvement of effective remittance utilization.

References and appendices are also attached at the end of the study.

# CHAPTER II LITERATURE REVIEW

7

Review of Literature is concerned with the past findings related to the topic that provide the base for the further research or study. This chapter acknowledges the relevance of the various literatures on remittance and economic growth theory. The evaluation of international and national review of previous studies has been discussed in this chapter.

# Theoretical Review

Today the term remittance has taken a central place in debates among development experts all over the world owing partly to the fact that its volume is growing at an exponential rate in recent year. The renewed debate started particularly after 1990s when it was observed that the dependency theory and structural views on remittances, which dominated the decades of 1970s and 1980s and maintained a pessimistic view on remittances, witnessed a downfall. The dependency theorists were of the view that remittance never contributes to the development of underdeveloped countries mainly for the reason that international migration encourages brain drain from the developing countries depriving them of the human capital that they desperately need to meet their development goals. Prior to the dependency and structural views, however, the development list and neoclassical thinkers during 1960s and 1970s had maintained optimistic views on remittances believing that capital and knowledge transfer by migrants would help achieve development needs of least developed countries in the world. The same view has taken incarnation at the start of this century bringing back the debate about remittances on the floor once again.

Remittance constitutes important sources of foreign exchange for the poor countries. Which have substantial development impact as can be understood from micro and macro point of view? From macro frontier, remittances are used to make import payments and are used for productive investment by the government (Salim, 2005).

The major foreign income source to both the households and the government is remittance. It is generally perceived that international migration attributes mostly to

home country and country of destination. Aspects like economic, social and to some extent, political get highly flourished in home countries. Economically, the home countries could reap enormous benefits such as foreign exchange remittance, investment, technology transfer and training for its labor force. Socially, emigration to a developed country brings the cultures of the two relevant societies in greater contact, and the ideas, attitudes, policies and practices that help to foster economic and social development in a tighter bondage. The trend of remittance has had an important implication for the economies seen both in micro and macro perspective. The remittance not only affects positively level of income, but also the ability to access healthcare and education (Alishani and Nushi, 2012).

# Theories of Remittance

The literature on remittances identifies three theories to explain the flow of remittances. These are; Pure Altruism, Pure Self Interest and Tempered Altruism which is also referred to as Enlightened Self Interest. Most discussions in the literature are centered on the first two of them. These theories illustrate that remittances are sent mainly as a result of pure altruistic and self-interest motives (de Haas, 2007:7; Schiopu& Siegfried, 2006:8; Hagen-Zanker& Siegel, 2007:4; Lucas & Stark, 1985:902. The micro and macro economic theories are as follows.

# Pure Altruism theory

The Pure Altruism theory highlighted that migrants remit money back home in concern of the welfare of the remaining family members (Hagen-Zanker & Siegel, 2007; OECD, 2006). Chami et al. (2003) reported that in this theory, the migrant‟s utility is derived from that of his/her family back home. The migrant is rather satisfied when the welfare of his family back home is better off (OECD, 2006). This implies that the migrant is motivated to remit more funds to his family when there are unfavorable economic conditions holding in the home country. The theory observed that remittances are “compensatory transfers” since they increase when the migrant‟s home country is faced with economic disruptions such as droughts and a financial crisis (Chami et al., 2003). In order for the migrant to remit more funds, the economic

disruptions or “bad luck”, a term used by Chami et al. (2003), must be creating a shortfall for the remaining family.

As a result, the compensatory nature of remittances under the Pure Altruism theory implied that remittances are countercyclical, that is, they increase during times when there is deterioration in economic conditions in the business cycle (Vargas-Silva, 2008; Chami et al., 2003). The Bank of Uganda (2007) emphasized that altruistic remittances can be countercyclical to GDP patterns possibly because migrants tend to remit more during periods of economic disturbances in order for their families in the home country to smoothen their consumption. Also commented on behavioral patterns of remittances under a Pure Altruism theory, Brown (2006) suggested that there is an inverse relationship between the volumes of remittances and economic conditions holding in the 16 home country. Under this model, favorable economic conditions in the home country would imply a reduction in the volume of remittance inflows.

# Pure Self Interest theory

The Pure Self Interest theory is modeled around the argument that remittances are not always countercyclical. There are some instances or contexts where volumes of remittances reduce following poor economic conditions in the recipient country. In such a case, there is no inverse relationship between volumes of remittances and the economic performance of the home country as postulated by Brown (2006). In fact, there might be a positive correlation between volumes of remittances and economic performance of the home country where bad economic conditions may result in low volumes of remittances. Such behavioral patterns have led to the formulation of the Pure Self Interest theory. Lucas and Stark (1985) claimed that migrants ‟self-interest can be one another motive for remittances. In this context, migrants remit money in order for them to invest or inherit in assets back home and also for them to return home with dignity .When there is deterioration in economic performance of the home country; migrants are most likely to remit less since the situation will have a negative impact on both investible and inheritable assets. There is most likely to be an increase in the volumes of remittances if the home economy is undergoing a favorable spell.

# Tempered Altruism theory

The tempered altruism or enlightened self-interest view of remittances is suggested as an alternative to the pure altruistic and self-interest motives. This proposed motive views remittances as a mutually beneficial arrangement between a migrant and his/her household (Lucas and Stark, 1985). This mutually beneficial arrangement or

„contract‟ has two elements, investment and risk.

The tempered altruism and enlightened self- interest theory whereby remittances are viewed as a part of inter-temporal, mutually beneficial contractual 17 arrangements between the migrant and the family at home country. The contractual arrangements could be co-insurance, loan repayment and exchange of service.

# Theories of Growth The Solow Model

The theory is based on neo-classical assumption and assumes a multifactor

production function including labor and capital which are assumed to be close substitutes. It assumed that the production function increases with each input and input bears diminishing marginal return. When zero units of input are used for either K or L, then nothing is produced. Also the production function exhibits constant returns to scale. The Solow Model (1956, 1957) consists of a production function which is given by: Y=F(K, L).

Where, Y = Output, K= Capital and L= Labor.

Capital stocks include plant and machinery, bridges, factories and labor represents economically active population. For the economic growth based on this model there must be an increment in the stocks of capital through investment and supply of labor through population growth. Investment on capital stocks depends on savings and remittance can be used as substitute or to increase the domestic fund hence increase in capital funds. Furthermore, future remittance inflow can improve the creditworthiness of domestic investors, which may result into lower cost of capital in remittance receiving economies.

# The Endogenous Growth Models

It is an extension of Solow growth model. The objective was to explain how technological progress and economic growth become self-sustaining. In the exogenous models the steady-state growth is determined exogenously, for example technical change. In the endogenous growth models, the steady-state growth is determined endogenously. In these models, one of the determinants of growth (technology and labor employment) is assumed to grow automatically in proportion to capital. These models result in a production function of the form Y=AK and are thus called the AK models. Among the models are the Harrod-Domar and the Frankel- Rommer models.

# Two Gap Model of Economic Growth

This was the work of Chenery and Bruno (1962) and Chenery and Strout (1966). According to this model, growth required investment which in turn required savings. Assuming that there is no government sector, Y=C+I+(X-M) where Y is GNP, C is consumption, I is investment (or Domestic Gross Capital formation), X is export and M is import. Since Y-C=S where: S= savings (domestic) then M-X=I-S. (M-X) is the saving gap. These two constitute two separate constraints. Eliminating one does not get rid of the other. If we let (M-X) =F, then we can represent the above as follows, I=F+S. Using the relationship posted above, the following scenarios may arise: saving may be too small to permit the amount of investment that the country would otherwise have the capability to undertake. Therefore, a saving gap would exist. Export may be too small to permit the import required to make full use of the resources of the economy. Therefore, a foreign exchange (or trade) gap would exist. While the two gaps are distinct and separated ones, international remittances can, in fact, be used to fill both. For example international remittances can increased domestic savings and also households receiving them may use for agriculture and business which will increase the export.

# Review of Previous Studies

# International Context

Burney (1987) investigated the impact of worker‟s remittances from the Middle East on Pakistan‟s GNP growth, balance of payments, and domestic savings, using simple regression method analysis of data for 1969-70 to 1985-86. The study concluded that

i) If, in future, the amount of remittances will continue to fall, other things remaining same, not only will the GNP growth be lower than that of the GDP but it will also be difficult to maintain a high rate of growth. ii) The decline in the domestic saving rate is due to the accounting procedure and doesn‟t necessarily reflect a shift in the domestic saving behavior. iii) The foreign exchange made available because of the worker‟s remittances from the Middle East, had not only helped in reducing the current account deficit, but also reduced the external debt burden, improved debt servicing ability and decreased the need for additional foreign loans. iv) With the slowing down of economic activity in the Middle East, Pakistan is likely to face balance of payments problems not only because of the reduce amount of remittance but also because of the decline in the demand for its exports in the Middle East.

Nikola and Spatafora (2005) analyzed the impact of remittances on economic growth. This study used data on international remittances covering up to 101 countries over the period 1970 to 2003 using an instrumental variables approach to account for endogeneity, it found no statistically significant link between remittances and per capita output growth. This study also found, no significant link between remittances and education (secondary enrollment) and remittances and investment (investment/GDP). The author, however, cautions that identifying the impact of remittances on economic growth may be difficult using macro-economic data alone because of the difficulty of disentangling the various links.

World Bank (2006) studied the impact of remittances on growth depend on the policies being implemented by the home country. This study used a GMM instrumental variable procedure to estimate four growth regressions. This study had included remittances and the respective complementary terms as additional control.

The argument is remittance augments growth in the presentence of complementary policies that encourage education, increase financial depths, improve institutional qualities and reduce macroeconomic policy distortions. The study found a negative and significant coefficient on the total remittances to GDP ratio, but positive and significant coefficients on each of the interaction terms. This, the argued, implied a net positive impact of total remittances on GDP.

Javid, Arif and Qayyum (2008) analyzed an impact of remittances on economic growth and poverty. Using ARDL approach, the study focused on the importance of remittances inflow and its implication for economic growth and poverty reduction in Pakistan. The empirical evidence showed that remittances affect economic growth positively and significantly. Furthermore, the study also found that remittances had a strong and statistically significant impact on poverty reduction. So the important of remittance inflows cannot be denied in terms of growth enhancement and poverty reduction that consequently improves the social and economic conditions of the recipient country.

Ahmed and Uddin (2009) investigated the casual nexus between export, import, remittance and GDP growth for Bangladesh using annual data from 1976-2005.The study Used time series econometrics tools to investigate the relationship adding import and remittance in the model. The study found limited support in favor of export-led growth hypothesis for Bangladesh as exports, imports and remittance cause GDP growth only in the short run. The causal nexus is unidirectional.

Karagoz (2009) investigated on the remittances and economic growth in the case of Turkey. Using time series regression findings showed that the remittance flow to Turkey had statistically meaningful but negative impact on growth. On the other hand, export and domestic investment positively affect the economic growth, while foreign direct investment has no meaningful affect. Turkey which met with regular and massive labor migration to abroad after 1960s is still one of the most remittance gain countries in the world.

Mundaca (2009) analyzed the effects that both worker‟s remittances and financial intermediation have relation on economic growth. The author confronted the

implications of the theoretical model proposed with panel data for countries in Latin America and the Caribbean. The study found, among other things, that remittances can have significant positive long –run effects on growth. The author confronts the implications of the theoretical model proposed with panel data for countries in Latin America and the Caribbean. After considering the effect of long run investment and demographic variables, and controlling for fixed time and country effects, the empirical analysis indicates that financial intermediation tends to increase the responsiveness of growth to remittances. The overall conclusion is that making financial services more generally available should lead to even better use of remittances, thus boosting growth in these countries.

Siddique (2010) investigated the causal link between remittances and economic growth in three countries, Bangladesh, India and Sri Lanka, by employing the Granger causality test under a VAR framework analysis. Using time series data over a 25 year period, the study found that growth in remittances does lead to economic growth in Bangladesh. In India, there seems to be no causal relationship between growth in remittances and economic growth; but in Sri Lanka, a two-way directional causality is found; namely economic growth influences growth in remittances and vice-versa. The paper also discusses a number of policy issues arising from the result of the analysis in relation to remittances in association with liberalization of financial institution, gender issues, regulation and enforcement, investment and savings schemes, and promotion and education.

Azam and Khan (2011) analyzed the impacts of worker‟s remittances on economic growth of Azerbaijan and Armenia‟s economies. The statistical analysis had been made through simple log linear regression model and least square method. The study concluded that worker remittances are significant and had positive impact on economic growth and development. The findings suggested that the relevant authorities of both the countries need to formulated appropriate policies in order to encourage worker remittances and such remittances must be utilized more efficiently.

Yaseen (2012) observed the impact of remittances on economic growth, using panel data set of MENA countries, Algeria, Egypt, Jordan, Libya, Morocco, Oman, Syria, Lebanon and Tunisia, and econometric analysis of during the period 2000-2010. In the world wide economy, remittances represent one of the major international flows of financial resources. Sometimes the flows of remittances can exceed the flow of foreign direct investment (FDI). For centuries, economists have tried to recognize why some countries reflect strong economic growth, while other stand still at low levels of output. This effort led to a numerous of possible determinants of economic growth including financial development. These countries have experienced a major increase in remittance inflow, and at this time accounts for the bulk of total remittance receipts, compared with other regions. Most countries, remittances represent the largest sources of foreign exchange earnings and represent more than 10 percent of GDP. Hence, it is worth nothing that while some countries are net providers of remittances (the Gulf Corporation Council Countries), other such as Jordan, Egypt, Morocco, Tunisia, Lebanon and Syria are known to receive large amounts of worker‟s remittances empirically, if there was significant relationship between remittances and growth in these countries. Result indicates that remittance are found to be positively and significantly correlated with growth.

Shera and Meyer (2013) analyzed to study the impact of remittances on various macroeconomic and developmental aspects for the economy. This study aimed to observe the impact of remittances on economic growth, using a fixed effect (regression) model of 21 developing countries, during the period 1992–2012. These countries have experienced a major increase in remittance inflows, and at this time accounts for the bulk of total remittance receipts, compared with other regions. The study then reviewed the theoretical as well empirical literature devoted to remittances, in order; first, to select the arguments that can be applied to the countries and second, to identify empirically if there are significant relationships between remittances and GDP per capita in these countries.

Arifeen (2013) examined to see the contribution of migrant‟s remittances to Bangladesh socioeconomic development both at macro and micro economic

perspectives by using various relevant literatures published by different organizations. The macroeconomic base mainly focuses on Gross Domestic Product (GDP) including foreign reserve and balance of payment, capacity of importing goods, etc. while the micro economy focuses utilization of remittances for family social security, consumption and investment at the household and community level. The research found that remittances through international migrants are a relatively stable form of income. In the last thirty one years, increased remittance flow has been contributing to the economic development of Bangladesh. It is evident that remittances not only increase household income, but also had the potentially to increase local and national economic growth. However, some major challenges are considered as impediments to further socioeconomic development of Bangladesh.

Rahman and Wadud (2014) attempted to identify the macroeconomic determinants of remittance inflows in South Asian countries. The study used the additively separable utility function as theoretical framework and the Arellano-Bover/Blundell-Bond Systems of Generalized Method of Moments (SGMM) method as empirical framework with data on five countries in South Asia over the period 1976-2012. The study found that the remittance inflows in South Asia are altruistically motivated by the economic condition of home country whereas they are motivated by self-interest in case of the host country's economic condition. The emigrant stocks abroad, financial development and political rights significantly and positively affect the remittance inflows. The impact of, 2001 on remittance inflows is also found significantly positive. This is probably as a result of receiving more remittances through formal channel instead of informal channel due to strict monetary regulation. The study implies that well managed financial, political and macroeconomic environment and pro growth policy formulation are crucial to attract more remittances in this region.

Oshota and Badejo (2015) investigated the relationship between remittances and economic growth in Nigeria, using an error correction modeling approach for the period 1981 to 2011. This result revealed that remittances positively impact on the economic growth of Nigeria. We had found that a 1 percent increase in remittances

would lead to a 0.19 percent increase in the RGDP in the long run. However, remittances show a significant negative relationship with output in the short run. Also, while foreign aid as external sources of capital can have both short and long term significant influence on economic growth in Nigeria, its counterpart FDI can only exert positive impact on RGDP in the short run. The result of study also affirmed the significant positive role of trade in promoting economic growth, suggesting that the more open the economy

Bayar (2015) examined the relationship between economic growth, remittances, foreign direct investment inflows and gross domestic savings in Turkey during the period 1974-2013 by using Autoregressive Distributed Lag approach (ARDL). The study found that remittances, foreign direct investment and gross domestic savings had positive impact on economic growth.

Aboulezz (2015) examined the effect of international remittances on economic growth in Kenya. The study also investigated the causality between international remittances and economic growth using the ARDL estimation method. The data used was sourced from World Bank‟s Development Indicators for the period 1993 to 2014. The study used Granger Causality to investigate the causality between international remittances on economic growth in Kenya. The results show that the international remittances indicators are significant factors influencing the economic growth in Kenya. Thus it can be concluded that economic growth in the Kenya is largely driven by international remittances.

Meyer and Shera (2017) examined to identify the significant relationship between remittance and economic growth (panel data) using multiple regression analysis model. Albania and five high remittance receiving countries during 1999-2013.Using empirical method in six European countries it has observed to receive high ratio in remittance to GDP.A fixed effected model was considered to analyzed the explanatory variable as non-random using Panel data. After employing all these tests multiple regression analysis is conducted which shows that worker remittances is positively and significantly contribute in the economic growth of six countries. So,

contribution of worker remittance is the significant and most important in economic growth. But its productive use can help the economy of these countries to maintain and improve the economic growth by investing this money into consumption and investments.

Javaid (2017) investigated the impact of remittances (internal and external) on consumption and investment behavior of the households. The methodology used for the study, is regression model. The literature on the impact of remittances on consumption and investment, however, is exceptional, in context of Pakistan. To examine the impact of remittances, primary data was collected from the field survey of four main villages of Tehsil Sargodha (Punjab) Pakistan. The results show that remittances has positively related with consumption and investment. Furthermore, the study found the household behavior regarding consumption and investment is positive.

Ajaero (2017) analyzed the linkages between international migration, remittances and household welfare in Nigeria by examining household consumer and durable assets as welfare indicators as against the use of income and recurrent expenditure as indicators of the impact of migration and remittance on households. Data was from the 2009 World Bank Migration survey and were analyzed by descriptive statistics, asset index technique, and quintile estimation, ordinary least square and probit regressions. More of the migrants were single, males, students, had primary education, and had a mean age of 30 years prior to migration. The main determinants of receipt of remittance by households were age of the household head, region of residence, place of residence, and employment status of head of household. On aggregate levels, the proportion of remittance-receiving households in the fourth welfare quintile (13.88%) was more than non-remittance-receiving households (11.47%), while the proportion of non- migrant households in the fourth quintile (8.01%) was greater than the migrant households (.00%). The results also showed that having an international migrant and receiving of remittances significantly increases household welfare in Nigeria. Other variables that significantly affected household welfare in the area were age of the head of household, household size, region of residence, education and rural/urban place of residence.

Oluwatayo (2017) determined the impact of remittance on economic growth in Nigeria. This study employed annual secondary data covering the period 1996 to 2015. Data sources included Central Bank of Nigeria Statistical Bulletin and World Development Index data publications. Data collected were analyzed using Ordinary Least Squares to analyze the relationship between the dependent variable Real Gross Domestic Product (GDP) and independent variables Official Remittance (REM), Gross Fixed Capital Formation (GCF), Official Development Assistance (ODA), Foreign Aid (AID), Foreign Direct Investment (FDI) and Exchange Rate (EXR). Official Remittance, Gross Fixed Capital Formation and Exchange Rate all had positive and significant impacts on economic growth captured by Real Gross Domestic Product while Foreign Aid, Official Development Assistance and Foreign Direct Investment had insignificant impacts on economic growth. This study concludes that remittance significantly has a positive impact on economic growth in Nigeria. Since a positive and significant relationship has been established between remittance and economic growth, this study recommends government increases remittance inflows into the country by developing the financial sector in order to reduce the cost associated with the inflow of remittances and reduction of tax rate for transactions so people can send money through appropriate channels in order to aid government collect actual data on remittance flows*.*

# National Context

Dhungana (2012) explored the relationship between remittance and economic growth of Nepal during the period of three and half decades till 2010/11.This study used Descriptive statistics, trend analysis, correlation matrix and other relevant statistical tools that had applied for the analysis of data. The recent remittance utilization pattern reflects that 78.9 percent of total remittances are spent in daily consumption whereas

7.1 percent in repaying loans, 4.5 percent in household property, 3.5 percent in education and 2.4 percent in capital formation. The result shows that mere increasing remittance income does not support for the economic growth and development of the nation unless it is extensively used into the productive sectors. The Nepalese economy is gradually becoming consumption oriented due to remittance income that naturally

leads to dependency resulting in the dearth of resource for investment. Thus, it is recommended to the government agencies for the formulation and implementation of remittance utilization policy for the enhancement of national economy.

Wagle (2012) examined foreign remittance to Nepal and its socioeconomic implications. This study use analytical strategy involved estimating regressions of foreign remittance using the Generalized Least Squares estimator for families with foreign remittance and Three Stage Least Squares estimator for all families to minimize self‐selection and simultaneous causality bias. Data indicate that foreign remittance has helped increase income sizably and reduce poverty and income inequality marginally. Various family and individual characteristics are used to test whether the socioeconomically disadvantaged groups such as those with low non‐remittance income and assets, low caste and ethnic backgrounds, and from rural areas and remote regions benefited equally from foreign remittance. Although non‐remittance income and some of the low caste, ethnic, and spatiality backgrounds showed less consistent relationships, findings suggest that smaller families particularly with low asset‐holding and socioeconomic backgrounds were likely to receive less remittance. These findings highlight an important progress that the Nepali society is making toward leveling the playing field in foreign employment and remittance with migration to the regions and countries other than India offering better remittance prospects. Yet, further policy efforts are needed to ensure that foreign employment and remittance do not exacerbate the increasingly polarizing economic structure leaving the bottom sections of the society further worse off.

Bhatta (2013) examined the contribution for the poverty reduction in Nepal. Nevertheless, it might further deteriorate the trade balance, causing higher demand for consumable goods, most of which are imported in Nepal. Using co integration techniques and a Vector Error Correction Model (VECM) based on the monthly data of merchandise import, worker‟s remittance and trade deficit for ten years period, this paper studies whether remittance causes the merchandise import and trade deficit to raise in the long run. The co integration equation show that there is a long-run positive unidirectional causality from remittance to import as well as remittance to trade

deficit implying that remittance causes merchandise import and deteriorates trade balance.

Dhungana and Pandit (2014) explored the socio-economic impact of remittance on household‟s expenditure. The research found that a remittance really affects the income level of the households as well as society using regression model. Overall finding suggests that remittance helps particularly in escaping poverty and increasing overall economic status of the migrants and their households, and improving ability of the households to increase expenditure. One could argue, however, that such an increase in expenditure creates dependency because the migrants have to continue living abroad in order to maintain their livelihood. There are many success stories of investment made from remittances having lasting effects on the economic status of the households. The social contribution of migration is even more encouraging in terms of improving children‟s education and enhancing the overall social status of the households.

Aryal (2016) analyzed the role of remittance in economic development of Nepal, using multiple regressions. This study showed that the role of remittance in economic development is not statistically significant. As a major portion of remittance is being used on consumption and other non-productive sector including real estate and investment in gold; resulting from the poor investment environment caused by political instability and inadequate infrastructure. Similarly, in the model the gross capital formation was not found to be important, suggesting that the remittances inflow have not assisted in the capital expenditure and tends to use it in consumption expenditure. Secondary data have been analyzed for last forty year using IBM-SPSS software. This study supported the finding of previous studies related with remittance. Adhikari (2016) examined impacts of remittance on economic growth with theoretical aspects merely. It is mainly based on review of economic theories related to growth and remittance developed by various economists and scholars like Solow, Romar etc. Remittance is considered as a stable source of economic growth than foreign exchange earnings, foreign aids, foreign direct investment etc. The findings of his

paper are positive impact of remittance of economic growth in various developing countries like Nepal, Bangladesh, Sri Lanka etc.

Uprety (2017) examined the impact of remittances on economic growth in Nepal by using Johansen co integration and error correction methods. Using annual data of remittances, GDP per capita, consumption and investment for the period of 1976- 2013, this study found the evidence of co integrating relationship between these variables and that an increase in remittances deteriorates GDP per capita growth in Nepal. The main channel through which remittances influence economic growth is through consumption and investment. There is no evidence that remittances are used for investment; however, they had positive and statistical significant causality to consumption. Domestic production contracts with an increase in remittances. This is because of the exodus of farm workers with the rise in emigration due to Maoist's insurgency, political instability and unemployment. Besides, demand shifts from traditional Nepali products to differentiated manufactured products with an increase in remittance incomes. The increased demand is met by imports from Indian markets. There is no evidence of association of remittances and investment; however, they are positively associated with consumption. So, an increase in inflows of remittances decreases agro-product, increases consumption and does not change investment leading to deteriorate GDP per capita.

# Research Gap

From the review of literature it is found that many studies are taken on the remittances and GDP of Nepalese economy, poverty reduction, living standard of people, household pattern‟s, investment, foreign remittance and international economies. These studies were concerned with the structure and trend of remittance inflow, study of trend of macroeconomic variable and remittances impact on macroeconomic variables. These studies were concerned with the five macroeconomic variable of economic like gross domestic product, saving, investment, consumption and foreign exchange reserve. In Nepal, very few studies were done for statistical test for the significance of worker‟s remittances on macroeconomic variables of Nepal. It takes

33 years data for analysis of contribution of remittances in national economy of Nepal.

# Conceptual Framework

Independent Variable Dependent Variables

Worker‟s Remittance

|  |
| --- |
| Gross Domestic Product(GDP) |
| Consumption |
| Saving |
| Investment |
| Foreign Exchange Reserve(FOREX) |

# Gross Domestic Product (GDP)

Gross domestic product is the best way to measure a country's economy. GDP is the total value of everything produced by all the people and companies in the country. It's easy to calculate a country's gross domestic product using this standard formula: C + I

+ G + (X-M). It doesn't matter if they are citizens or foreign-owned companies. If they are located within the country's boundaries, government counts their production as GDP.

# Investment

Investment is the amount spends to add the stock of capital goods over a given period of time. It is the most important means of creating employment both directly indirectly through multiple effects, but at same time it is the most volatile component of GDP. Investment can be define as change in capital stock i.e. I = Δk. The fluctuations in investment lead to business cycle.

# Saving

Savings is the portion of income not spent on current expenditures. Because a person or institutions does not know what will happen in the future, money should be saved to pay for unexpected events or emergencies. An individual‟s car may breakdown, their dishwasher could begin to leak, or a medical emergency could occur or institution‟s were use further investment for organization betterment. Without savings, unexpected events can become large financial burdens. Therefore, savings helps an individual or institution or family become financially secure.

# Consumption

Consumption is the use of goods and services by households. In another word, consumption means the direct and final use of goods and services in the satisfaction of human wants. Consumption has been given the most important role in economy. Consumption leads to economic activity of country.

According to Keynes theory, if consumption does not increase the demand for goods will decrease and then production will fall. It may lead to unemployment, t consumption plays an important role in the determination of income, output and employment in a country.

hus

# CHAPTER III RESEARCH METHODOLOGY

25

This chapter refers to the overall research methods from the theoretical aspects to the collection and analysis of data which helps us to find out accuracy, validity, and suitability. The justification on the present study cannot be obtained without help of proper research methodology. For the purpose of achieving the objectives of the study, the applied methodology was used. The research methodology has primarily evaluated the contribution of worker‟s remittance in Nepalese economy. The research methodology adopted in this chapter follows some limited but crucial steps aimed to achieve the objectives of the research.

# Research Design

This research is aimed at studying the contribution of worker‟s remittance in Nepalese economy. Analytical research design is taken for research study using different statistical tools. It also analyze the trends of remittance, trend of selected macroeconomic variables and the effect of remittance on GDP, S, I, C and FOREX of Nepal.

# Population and Sample

Population refers to the, entire group of people, events, or things of interest that the researcher wishes to investigate. The researcher takes 33 years data of remittances, GDP, S, I, C and FOREX of Nepal as the sample of the research.

# Sources of Data

The sources of data indicate the place from where the information is gathered. The data for the study are remittances, GDP, S, I, C and FOREX of Nepal. On the basis of techniques of its collection, secondary sources are used rather than primary sources in this research programmed.

# Data Collection & Processing Procedure

The study uses only secondary data of remittances, GDP, S, I, C and FOREX. The secondary data of last 33 years used i.e. (1984/85 to 2016/17). The data are abstracted from economic survey, NRB, MOF, CBS etc. The relevant data will be instructed in meaningful tables and figures. It helps to find out the conclusion from the available data, with the help of various statistical tools.

# Data Analysis Tools and Techniques

Statistical tool is specially focused for data presentation and analysis. The research objective is practicable, the year wise increase of remittances was studies; the share of remittances to GDP, S, C, I and FOREX was also analyzed and to find accurate result different statistical tools were used. The different statistical tools in the process of analysis are:

# Mean ( *X* )

Among different measures of central location, the best known and the most widely used is the arithmetic mean, or simply the mean. It is the sum of the values divided by their number. It can be calculated for any set of numerical data, so it is always exists. The mean can be expressed symbolically as,

Mean

*X*   *X*

*n*

*X* = Arithmetic mean

Σ*X* = Sum of all the values of the variable X N= Number of observations

# Standard Deviation (σ )

The standard deviation (σ) measures the absolute description. It is defined as positive square root of the mean of the square of the deviations taken from the arithmetic mean. If the standard deviation is greater, the magnitude of the deviations also is

greater. A small standard deviation means a higher degree of true/ fact and vice-versa. This can be symbolically as:

*S*.*D***  

1 *X*  *X* 2

*n*

Where,

σ = Standard deviations n= number of observations *X* = Arithmetic mean

# Median

The median is the value separating the higher half from the lower half of a data sample .The median is used to measure of the properties of a data set in statstics and probability theory. The basic advantage of the median in describing data compared to the mean is that it is not skewed so much by extremely large or small values. This can be calculated by using formula as;

Median (Md) = (n+1)/2 Where,

n = no. of observation

# Skewness

The coefficient of Skewness is a measure for the degree of symmetry in the variable distribution (Sheskin, 2011).



Negatively skewed distribution

or Skewed to the left Skewness <0

Normal distribution Symmetrical Skewness = 0

Positively skewed distribution

or Skewed to the right Skewness > 0

# Kurtosis

The coefficient of Kurtosis is a measure for the degree of tailedness in the variable distribution (Westfall, 2014).



Platykurtic distribution Thinner tails

Kurtosis <0

Normal distribution Mesokurtic distribution Kurtosis = 0

Leptokurtic distribution Fatter tails

Kurtosis > 0

# Correlation Coefficient (r)

Correlation analysis is the statistical tools that can be used to describe the degree to which one variable is linearly related to another. The correlation coefficient measures the degree of relationship between two sets of figures. Correlation coefficient is most widely used in practice correlation can either be positive or it can be negative. It is denoted by r. Its value lies between -1 to +1. When r = -1, it means, there is perfect negative relationship between the variables and when r = +1, it means, there is perfect positive relationship between the variables. However, in practice such values of r is

+1, -1 and 0 are rare. In practical life, the possibility of obtaining either prefect positive or perfect negative correlation is very remote, Gupta, (2000).



# Regression Analysis

Regression analysis is the development of the statistical model that can be used to predict the values of the dependent variable based upon the values of at least one independent variable. Regression analysis helps us to know the relative movement in the variables.

# Simple regression analysis

The simple regression equation of Y on X, which is used to describe the variation in the value of Y of given change in the value of X.

Y = a + bX

Where,

Y = dependent variable (GDP, Consumption, Saving, Investment and FOREX) X = independent variable (Remittance)

a = Regression constant

b = Regression coefficient

# CHAPTER IV RESULTS

30

This chapter deals with presentation, analysis and interpretation of relevant data of Nepalese economy in order to fulfill the objectives of this study. For the obtaining best result, the data have been analyzed according to the research methodology as mention in third chapter. The purpose of this chapter is to introduce the mechanics of data analysis and interpretation.

# 4.1 The Trend of Worker’s Remittance Income in Nepal

Worker‟s Remittance is a major source of foreign currency to the developing nation like Nepal which is increasing dramatically over recent decades and has become a substantial component of making current account surplus in the balance of payments. The flow of the worker‟s remittances was increasing rapidly. The following figure shows the flow of worker‟s remittance of 33 years.

# Figure: 4.1 Line graph showing the trend of worker’s remittance income in Nepal

800

700

600

500

400

Worker's

Remittanc e (billons)

300

200

100

0

*Source : Appendix I*

Figure 4.1 shows the increasing trend in worker‟s remittance income of Nepal. Figure also shows that the flow of worker‟s remittance income was increasing every

year. In 1984/85 worker‟s remittance income was Rs.0.69 billion and in 1985/86 worker‟s remittance was Rs. 0.81 billion which increased by 17.39 percent than previous year. In 1986/87 worker‟s remittance income was Rs. 1.29 billion which is increased by 59.26 percent. In 1988/89 and 1995/96 worker‟s remittance income was Rs. 1.63 billion and Rs. 4.28 billion which were decreased by -4.68 percentage and -

15.42 percentage respectively. In 2000/01, remittance increased by 272.98 percent than previous year which was highest percentage increased in worker‟s remittance income. Then next year 0.68 percent worker‟s remittances increased in 2001/02. The worker‟s remittance increasing trend was highly fluctuating every year but it is in increasing trend. In 2014/15 worker‟s remittance income was Rs.617.29 billion which increased by 13.62 percent than previous year. In 2015/16 worker‟s remittance got by the country was Rs. 665.06 billion which increased by 7.74 percent than previous year. Most recently, in 2016/17 worker‟s remittance income is Rs.

695.45 billion which increased by 4.57 percent but less than previous year.

It is concluded that, Nepal has been experiencing continuous growth in remittance inflow last few decades. The flow of remittance income amount and percent was increased every year. This showed the income of remittance has well for economy; it helps to reduces poverty, increased living standard of people, consumption, investment, saving pattern of individual etc.

# The Trend of Worker’s Remittance on GDP, S, C, I and FOREX Macroeconomic Variables

* + 1. **Share of Worker’s Remittances in Terms of GDP of Nepal**

Nepal is one of the major worker‟s remittances receiving country in the world based on GDP. With the increase of volume of worker‟s remittances, the share of worker‟s remittances to GDP also increases. The remittance and its contribution on national economy can be measured with worker‟s remittance to GDP ratio that has been presented in following figure.

# Figure: 4.2: Line graph showing the trend of worker’s remittance and GDP of Nepal

3000

2500

2000

1500

1000

500

Worker's

Remittanc e (billons) GDP(billio ns)

0

*Source: Appendix II*

Fig 4.2 shows that the worker‟s remittance and GDP were 0.69 billion and 46.58 billion in 1984/85. In 1985/86 the worker‟s remittances and GDP were Rs.0.81 billion and Rs. 55.73 billion respectively, in 1984/85 where share of worker‟s remittance was

1.48 percent of GDP. Then the worker‟s remittance fluctuate over the time period from 1985/86 to 1995/96 i.e. 1.45, 2.02, 2.22, 1.83, 1.69, 1.77, 1.55, 1.74, 1.74, 2.31,

1.72 percent of GDP. After that the worker‟s remittance flow was highly increase in 2000/01 then past years it increase (12.66 billion in 1999/00 and 47.22 billion in 2000/01). There was huge amount of worker‟s remittance entered in to Nepalese economy.

In 2000/01 the worker‟s remittance income of the Nepalese economy jumped very highly and increased by 272.99 percent. After 2000/01, the volume of worker‟s remittances increases rapidly and in every year the ratio of worker‟s remittance to GDP was increasing but sharply fall in 2009/10 and 2010/11. In 2015/16 Nepal had been the fourth largest worker‟s remittance receiving country in the world (based on GDP) receiving Rs. 665.06 billion where GDP was Rs.2248.69 billion so that the share of worker‟s remittance to GDP was 29.58 percent of GDP. More, in 2016/17 the GDP of country was Rs. 2599.23 billion and the worker‟s remittance received was Rs. 695.45 billion with slightly fall to 26.76 percent of the GDP.

To justify the relationship between the worker‟s remittance and GDP, Fig.4.2 line graph shows that the ratio of worker‟s remittances and GDP from 1984/85 to 1999/00 AD there was simply negligible change. After that share of remittance to GDP start to increase, then it became a significant. In 2016/17, the remittances hold 26.72 percent of whole GDP of Nepal which shows if there will be any fluctuation in the worker‟s remittance sector then the Nepalese economy face a several problem having trade deficit, foreign reserve, saving, living standard, consumption pattern, investment etc.

# The Share of Worker’s Remittance in Terms Consumption of Nepal

As Nepal is one of the major worker‟s remittance receiving country in the world. Mostly, received portion of amount is included in expenditure of household consumption pattern i.e. on food, rent, medical, education etc. The worker‟s remittance and its contribution on national economy can be measured with worker‟s remittance to consumption ratio that has been presented in following figure.

# Figure: 4.3: Line graph showing the trend of worker’s remittance and consumption of Nepal

3500

3000

2500

2000

1500

1000

consum

ption(bil lions)

500

0

*Source: Appendix III*

1984/85

1986/87

1988/89

1990/91

1992/93

1994/95

1996/97

1998/99

2000/01

2002/03

2004/05

2006/07

2008/09

2010/11

2012/13

2014/15

2016/17

Fig 4.3 shows that the worker‟s remittances and consumption were Rs.0.69 billion and 40.35 billion respectively in 1984/85 where the share of worker‟s remittance was

1.71 percent of the consumption. The share of worker‟s remittance was fluctuating over the period of 1985/86 to 1995/96(1.62 percent to 2.00 percent). After that the worker‟s remittance share highly increases, then previous year consumption, it jumped 2.00 percent to 12.11 percent in 2000/01. Since 2000/01, the share of worker‟s remittance was simply decreased in some years (2001/02 to 2002/03) as compared 2000/01. After that the flow of worker‟s remittance increases gradually then the share of worker‟s remittance also increases to consumption.

In 2014/15 the country got Rs. 617.29 billion as worker‟s remittance with 31.92 percent of the consumption. In 2015/16 the consumption of country was Rs.2161.52 billion and the worker‟s remittance received was Rs. 665.06 billion with 30.77 percent of the consumption. Moreover recent period 2016/17 there was increase in consumption to RS. 2326.85 billion, worker‟s remittance was Rs. 695.45 billion with slightly decrease of 29.89 percent of the consumption.

To justify the relationship between the worker‟s remittances and consumption, here line graph is also presented. From the figure 4.3 it can be seen that the ratio of worker‟s remittance and consumption up to from 1884/85 to 2000/01, there was simply negligible change. After 2007/08 the share of remittances to consumption to increase then in the success ding year, it become a significant figure. In 2015/16 and 2016/17 worker‟s remittance hold 30.77 percent and 29.89 percent of whole consumption of Nepal respectively.

# The Share of saving in terms of worker’s Remittance in Nepal

As the migrants to abroad increases, the flow of workers remittance also increases. Nowadays, Saving deposits of various types held in banks of Nepal are modeled and evidence is discovered of strong relationship with the income level of migrants. Worker‟s remittance is found to be interest sensitive. The worker‟s remittance and its contribution on national economy can be measured with saving to worker‟s remittance ratio that has been presented in following figure.

# Figure: 4.4: Line graph showing the trend of worker’s remittance and saving of Nepal

800.00

700.00

600.00

500.00

400.00

300.00

200.00

Worker's

Remittanc e (billons)

Saving(billi ons)

100.00

-

*Source: Appendix IV*

Fig 4.4 shows that the worker‟s remittance and saving were Rs.0.69 and Rs. 6.24 billion in 1984/85, where the saving share was 6 times more than remittance (904.35 percent more). The average worker‟s remittance and saving increase were Rs. 142.05 and Rs. 74.58 billion respectively. The trend of worker‟s remittance was increasing higher than saving. Saving was in decreasing trend, which decrease 904.35 percent to

45.40 percent from 1984/85 to 2016/17 respectively but the amount of saving was slowly increased.

From 1984/85 to 1997/98 worker‟s remittance and saving was increasing slowly, Rs. 0.69-6.99 billion and Rs. 6.2-41.44 billion respectively. In 1998/99 worker‟s remittance of Nepalese economy highly increase but saving was not highly increase. After 1998/99, the volume of worker‟s remittances increased rapidly in every year and saving increased slowly. The saving was decreased in compare with worker‟s remittance. Before 2000/01 the saving was more than worker‟s remittance income after that saving was decreased for two year than remittance. In 2005/06, the saving was decreased as the percentage of worker‟s remittance income. In 2015/16, saving was highly decreased to Rs 91.64 billion than previous year saving. Where as in 2016/17 saving increased to Rs.315.75 billion and this year worker‟s remittance

income was Rs.695.45 billion comparing to previous year worker‟s remittance income was Rs. 617.3 billion with 45.40 saving percentage to worker‟s remittance.

To clarify the relationship between the worker‟s remittance and saving, here line graph is also presented Fig.4.4.The Fig. 4.4 shows that the worker‟s remittance income was highly increasing and saving was slowly increasing as compare to volume but the percentage was decreased. The saving trend was decreased after 2014/15 and remittance was in increasing trend. This is not good for achieving economic growth.

# The Share of Remittance in Terms of Investment of Nepal

The increasing amount of migrants remit to their home countries is of great concern, how the worker‟s remittance can foster investment by considering the institutional quality and financial infrastructure. The worker‟s remittance and its contribution on national economy can be measured with worker‟s remittance to investment ratio that has been presented in following figure.

# Figure: 4.5: Line graph showing the trend of worker’s remittance and investment

1400

1200

1000

800

600

400

200

Worker's

Remittanc e (billons) Investme nt (billions)

0

*Source: Appendix V*

1984/85

1986/87

1988/89

1990/91

1992/93

1994/95

1996/97

1998/99

2000/01

2002/03

2004/05

2006/07

2008/09

2010/11

2012/13

2014/15

2016/17

Fig 4.5 shows that worker‟s remittances and investment were Rs. 0.69 and Rs.10.18 billion respectively in 1984/85 where the share of worker‟s remittance was 6.78 percent of the investment. The worker‟s remittance then increased by Rs.0.81 billion in 1985/86 and reached Rs.5.06 billion in 1994/95 and investment increased by Rs.

10.60 billion to Rs. 55.23 billion from 1985/86 - 1994/95.

The worker‟s remittances was rapidly increased but investment was not increase as worker‟s remittance as volume and percent. In 2000/01 the worker‟s remittance of the Nepalese economy jumped highly and increased by Rs. 34.15 billion also share or worker‟s remittance reached 47.87 percent to investment. After 2000/01, the volume of remittances increased rapidly and every year the ratio of worker‟s remittance to investment was fluctuated. But in 2015/16 the volume of investment was decreased to Rs. 763.98 billion and worker‟s remittance received was Rs. 665.06 billion with

87.10 percent of investment. The recent trend 2016/17 investment was highest than previous trends which is Rs.1208.67 billion and worker‟s remittance was Rs.695.45 billion with 57.54 percent of investment.

To clarify the relationship between the worker‟s remittances and investment, Fig.4.5 is also presented. From Fig.4.5 line graph it can be seen that the trend of worker‟s remittance and investment is upward. The share of worker‟s remittances to investment started to increase and then in the success ding year, it has become a significant.

# Share of worker’s remittance In Terms of Foreign Exchange Reserve of Nepal

With the increase in migrants, foreign currency starts to inward in the country. Recently Nepal‟s foreign exchange reserved has been decreasing over last few months. FOREX is fueled by rising in worker‟s remittance, that helps Nepal‟s import financing. Here the share of remittances to FOREX of Nepal has been shown in the figure.

# Figure: 4.6: Line graph showing the trend of remittance and FOREX of Nepal

1,200.00

1,000.00

800.00

600.00

400.00

Worker's

Remittance (billons) FOREX

(bilions

200.00

-

*Source: Appendix VI*

Fiscal Year

1985/86

1987/88

1989/90

1991/92

1993/94

1995/96

1997/98

1999/00

2001/02

2003/04

2005/06

2007/08

2009/10

2011/12

2013/14

2015/16

Figure 4.6 shows that worker‟s remittances and FOREX were Rs. 0.69 billion and Rs.

2.38 billion respectively in 1984/85 where share of worker‟s remittance was 28.99 percent of the FOREX. The share of worker‟s remittances to FOREX was slowly increased till in 1999/00. After that the share of worker‟s remittances to FOREX was highly jumped (in 2000/01 was 44.90 percent). The ratio of worker‟s remittances was high in 2010/11 which was 93.15 percent of FOREX. After, from 2011/12 the share of worker‟s remittances was in decreasing trend of FOREX but the volume of worker‟s remittance was increased. The increased rate of worker‟s remittance was lower than FOREX reserve rate. In 2014/15 worker‟s remittance got by country was Rs.617.29 billion with 74.91 percent of FOREX which was lower than previous year. In 2015/16, FOREX reserve of country was Rs.1039.2 billion and worker‟s remittance received was Rs. 665.06 billion with 64.00 percent of FOREX which was also lower than previous year. Moreover, the recent period 2016/17 FOREX was 1079.52 where share of worker‟s remittance was 64.42 percent of FOREX showing the increasing trend in Nepalese economy.

To clarify the relationship between worker‟s remittances and FOREX, Fig4.6 line graph is also presented. From Fig 4.6 line graph it can be seen that the ratio of

worker‟s remittances and FOREX was upward. In 2016/17, the worker‟s remittances hold 64.42 percent of whole FOREX of Nepal.

# Effect of Worker’s Remittances on Selected Macroeconomic Variables must be Analyzed by using different Statistical Tools

Statistical tools are the mathematical technique used to analysis and interpret of performance. It is used to describe the relationship between variables and interpret the result. Firstly descriptive statistical analysis is used to interpret the variables. Then the analysis includes correlation co-efficient and regression coefficient (r) between the following financial variable have been calculated and interpreted. Simple correlation and simple regression coefficient are calculated as follows:

* + - Between worker‟s remittance and GDP
		- Between worker‟s remittance and saving
		- Between worker‟s remittance and consumption
		- Between worker‟s remittance and investment
		- Between worker‟s remittance and FOREX

# Table: 4.1 Analysis of Descriptive Statistics of Worker’s remittance and Macroeconomic Variables.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Statstics/Varaibles | Rem | GDP | Consumption | Saving | Investment | FOREX |
| Mean (Rs inbillions) | 142.05 | 705.08 | 632.24 | 74.58 | 240.23 | 213.87 |
| Standard deviation (Rs in billions) | 214.47 | 725.08 | 659.82 | 76.02 | 304.57 | 293.71 |
| Median | 47.22 | 441.52 | 390.01 | 46.56 | 93.02 | 105.17 |
| Kurtosis | 1.36 | 0.55 | 0.68 | 2.13 | 2.14 | 2.97 |
| Skewness | 1.61 | 1.27 | 1.31 | 1.57 | 1.65 | 1.93 |
| Minimum(Rs in billions) | 0.69 | 46.58 | 40.35 | 5.89 | 10.18 | 2.38 |
| Maximum(Rs inbillions) | 695.45 | 2599.23 | 2326.85 | 315.75 | 1208.67 | 1079.52 |

*Source: NRB, CBS*

Table 4.1 shows the descriptive statistics of independent variable (worker‟s remittance) and dependent variable (GDP, Saving, Consumption, Investment and FOREX). As per the above table, the average value of worker‟s remittance and macro economic variables are 142.05, 705.08, 632.24, 74.58, 240.23 and 213.87 respectively. After sorting the middle value the observation of worker‟s remittance is 47.22, GDP is 441.52, Consumption 390.01, saving 46.56, investment is 93.02 and FOREX is 105.17. Since the minimum and maximum data of workers remittance is Rs.0.69 billion and RS 695.45billions, GDP is Rs. 46.58 billion and 2599.23 billion, Consumption is Rs. 40.35 billions and Rs 2326.85 billions, Saving is Rs 5.89. billion and Rs. 315.75 billion, Investment Rs. 10.18 billions and Rs.1208.67 billions and FOREX is Rs. 2.38 billions and Rs 1079.52 billion respectively. The standard deviation of Workers remittance is 214.47, GDP 725.08, consumption is 659.82, saving is 76.02, investment is 304.57 and FOREX is 293.71.

Table 4.1 Shows the Kurtosis and Skewness analysis in which the kurtosis analysis measures the peakness or flatness of the distribution of the data. As from the above table the study interpret the data, all the variables are Platykurtic ie. Negative kurtosis (Flatted- curve) which is lower than normal distribution 3.The normal skewness is equal to 0, here the all variables have more than 0 values which interpret showing the long right tail (positive skewness) respectively.

# Table 4.2 Simple Correlation Coefficient analysis between Worker’s remittance and Macroeconomic variables

|  |  |  |  |
| --- | --- | --- | --- |
| Dependent Variable | Independent Variable | CorrelationCoefficient (r) | Determination ofcorrelation coefficient (r2) |
| GDP | Rem. | 0.9846 | r2= 0.9694 |
| Consumption | Rem. | 0.9875 | r2= 0.9752 |
| Saving | Rem. | 0.8790 | r2= 0.7726 |
| Investment | Rem. | 0.9791 | r2= 0.9587 |
| FOREX | Rem. | 0.9868 | r2= 0.9739 |

Source: NRB, CBS

Table 4.2 shows the correlation coefficient between worker‟s remittance and GDP is 0.9846. There is highly positive correlated and significant between worker‟s remittance and GDP. The co-efficient of determinant that the total variation in GDP is

96.94 percent by the variation in the worker‟s remittances, which is the larger coefficient of determination, implies the higher explanatory power of the explanatory variable worker‟s remittance for the estimation of the explained variable.

Table 4.2 shows the correlation coefficient between worker‟s remittance and consumption is 0.9875. There is highly positive correlated and significant between worker‟s remittance and consumption. The coefficient of variation shows that the total variation in consumption is 97.52 percentages by the variation in the worker‟s remittances.

Table 4.2 shows the correlation coefficient between worker‟s remittance and saving is 0.8790. There is positive correlated and significant between worker‟s remittance and saving. The coefficient of determination is 0.7726, which shows the magnitude of the goodness of fit of the regression line and the percentage explained variation from the total variation to be explained. It is moderate explanatory power of the explanatory variable worker‟s remittance for the estimation of explained variable.

Table 4.2 shows the correlation coefficient between worker‟s remittance and investment is 0.9791. There is highly positive correlated and significant between worker‟s remittance and investment. The coefficient determination is 0.9587, which implies that 95.87 percent of the total valuation in dependent variable (investment) is explained by the independent variable (worker‟s remittance).

Table 4.2 shows the correlation coefficient between worker‟s remittance and FOREX is 0.9868. There is highly positive correlated and significant between worker‟s remittance and FOREX. The coefficient of determination is 0.9739; this implies that

97.39 percent of the total valuation in dependent variable (FOREX) is explained by the independent variable (worker‟s remittance).

# Table 4.3: Simple Regression Analysis between Worker’s remittance and Macroeconomic variables

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dependent Variable | Independent Variable | Intercept (a) | Regression Coefficient (b) | T-stat | P-Value |
| GDP | Rem. | 232.2503 | 3.3287 | 31.3467 | 0.000000 |
| Consumption | Rem. | 200.689 | 3.0381 | 34.9295 | 0.000000 |
| Saving | Rem. | 30.33 | 0.3115 | 10.2646 | 0.000448 |
| Investment | Rem. | 42.7214 | 1.3904 | 26.8246 | 0.002866 |
| FOREX | Rem. | 21.9120 | 1.3514 | 33.999 | 0.03813 |

*Source: Appendix I, II, III, IV, V, VI*

Table 4.3 shows that GDP is the positive function of worker‟s remittance. It shows that coefficient a= 232.2503 which is positive. This also implies the autonomous increment in worker‟s remittance to GDP was by 232.25 billion in every year. Since the coefficient of worker‟s remittance is positive and equal to b=3.3287. It also tells that the increase in worker‟s remittance by one billion at a time period t implies 3.3387 billion increases in the nominal GDP for the same time period. It also shows that the calculated t-statistics is 31.4767 which are greater than the table value of t at 5% level of significance and 20 degree of freedom. This implies that the alternative hypothesis is accepted and hence can be concluded that there is significant role of worker‟s remittances in the GDP of Nepal.

Table 4.3 shows that consumption is the positive function of worker‟s remittance. The coefficient a = 200.689 which is positive. This also implies the autonomous increment in worker‟s remittance to consumption was by 200.689 billion in every year. Since the coefficient of worker‟s remittance is positive and equal to b=3.0381. It also tells us that the increase in worker‟s remittance by one billion at a time period t implies 3.0381billion increases in the consumption for the same time period t. It also shows that the calculated t-statistics is 34.9295 which is greater than the table value of t at 5% level of significance and 20 degree of freedom. This implies that the

alternative hypothesis is accepted and hence can be concluded that there is significant role of worker‟s remittances in the consumption of Nepal.

Table 4.3 shows that there is the positive relationship between the worker‟s remittance and saving at the same time period. It shows that coefficient a = 30.33 which is positive. This also implies the autonomous increment in worker‟s remittance to saving was by 30.33 billion in every year. Since the coefficient of worker‟s remittance is positive and equal to b=0.3115. It also tells us that the increase in worker‟s remittance by one billion at a time period t implies 0.3115 billion increase in the saving for the same time period t. It is also shows that the calculated t-statistics is 10.2646 which is greater than the table value of t at 5% level of significance and 20 degree of freedom. This implies that the alternative hypothesis is accepted and hence can be concluded that there is significant role of worker‟s remittances in the saving of Nepal.

Table 4.3 shows that investment is the positive function of worker‟s remittance. It shows that coefficient a = 42.72 which is positive. This also implies the autonomous increment in worker‟s remittance to investment was by 42.72 billion in every year. Since the coefficient of worker‟s remittance is positive and equal to b= 1.3904. It also tells us that the increase in worker‟s remittance by one billion at a time period t implies 1.3904 billion increases in the investment for the same time period t. It also shows that the calculated t-statistics is 26.8246 which are greater than the table value of t at 5% level of significance and 20 degree of freedom. This implies that the alternative hypothesis is accepted and hence can be concluded that there is significant role of worker‟s remittances in the investment of Nepal.

Table 4.3 shows that FOREX is the positive function of worker‟s remittance. It shows that coefficient a = 21.9120 which is positive. This also implies the autonomous increment in worker‟s remittance to FOREX was by 21.9120 billion in every year. Since the coefficient of worker‟s remittance is positive and equal to b=1.3514 it also tells us that the increase in worker‟s remittance by one billion at a time period t implies 1.3549 billion increase in the FOREX for the same time period t. It is also shows that the calculated t-statistics is 33.999 which are greater than the table value

of t at 5% level of significance and 20 degree of freedom. This implies that the alternative hypothesis is accepted and hence can be concluded that there is significant contribution of worker‟s remittances in the FOREX of Nepal.

# Findings

The following findings are drawn from the research work

* + 1. The worker‟s remittance inflow of Nepal is highest in the year 2016/17 with Rs. 695.45 billion and lowest in the year 1984/85 with Rs.0.69 billion, it leads to average of Rs.142.05 billion. The results also indicate that total worker‟s remittance inflow of our country is in increasing trend from 1984/85 to 2016/17.
		2. The average GDP of Nepal has been revealed to be Rs.705.08 billion. The GDP is highest in the year 2016/17 with Rs. 2599.23 billion and lowest in the year 1984/85 with Rs.46.58 billion, it shows that the GDP of Nepal is in increasing trend from1984/85 to 2016/17. The other macro-economic indicator like saving, investment, consumption and FOREX also shows increasing trends.
		3. The average of macro economic indicator like consumption, saving, investment, and FOREX is Rs 632.24 billion, Rs 74.58 billion, Rs. 240.23 billion and Rs. 213.87 billion respectively. As the highest and lowest value of consumption is Rs 2326.85 billion and Rs 40.35 billion, as like saving have Rs 315.75 billion and Rs. 5.89 billion, investment have Rs. 1208.67 billion and Rs. 10.18 billion and FOREX have Rs. 1079.52 billion and Rs. 2.38 billion respectively.
		4. The ratio of worker‟s remittances to macroeconomic indicator have decreased but saving and FOREX was increased in 2016/17. The ratio of Worker‟s remittance also got decreased then the previous year ratio.
		5. The correlation analysis of GDP, consumption, saving, investment and FOREX to worker‟s remittances is 0.9846, 0.9875, 0.8790, 0.9791 and 0.9868 respectively. This shows that there is positive correlation and significance

between worker‟s remittance with GDP, saving, investment, consumption and FOREX.

* + 1. The regression coefficient as positive for total worker‟s remittances inflow, GDP, saving, consumption, investment and FOREX. The regression coefficient for total worker‟s remittance inflow is positive and significant. Thus, the result indicates that higher the total worker‟s remittance inflow, higher would be the macroeconomic indicator. This shows that Nepalese economy was dependable.
		2. The worker‟s remittance income of Nepal has been increasing rapidly during two decades especially from 2000/01. The increasing trend of worker‟s remittance affects the balance of payment (BOP) of country.
		3. The research also showed that the rate of growth of GDP is very low whereas rate of growth of worker‟s remittance is very high which implies that huge amount of worker‟s remittances is used in household consumption.
		4. The share of worker‟s remittances to GDP of Nepal has been increased from 1.48 percent in 1984/85, 1.72 percent in 1995\96, 10.69 percent in 2000\01,

29.6 percent in 2015\16 and 26.76 percent in 2016/17 respectively. This shows that Nepalese economy was dependable.

This increasing volume of worker‟s remittances has showed that worker‟s remittance is the significant determinant of the economic growth of Nepal. The Nepalese economy was consumption oriented the worker‟s remittance ratio was increased in consumption. If the remittances are used for consumption only and are not turned into investments, the short term boost provided by it in the economy will not be sustainable and productivity will decline and the economic choices get tougher. The saving trend was lower than the increasing trend of worker‟s remittance. This study results that the workers remittance plays vital role in Nepalese economy to increase the national income of the country.

# Discussion

Recently remittance has risen in a significant way in developing countries, but scholars from different countries differently characterized its impact on economic

growth. Depending on the debates of worker‟s remittance, Siddique (2010) found that growth in remittances does lead to economic growth in Bangladesh. In India, there seems to be no causal relationship between growth in remittances and economic growth; but in Sri Lanka, a two-way directional causality is found; namely economic growth influences growth in remittances and vice-versa. But the research study result shows the positive relationship between worker‟s remittance and economic development. Azam and Khan (2011), Yaseen (2012) et al. also argued to show the significant relationship between remittance and economic growth.

Worker‟s Remittance has emerged as backbone of Nepal‟s economy in the last two decades. The study also found to show that the GDP of Nepal is highly depending upon worker‟s remittance, as Shera and Meyer (2013) have analyzed that there are significant relationships between remittances and GDP per capita in the 21 developing countries.

The popular view regarding remittance has been largely gone into increased consumption and investment behavior. The research study found that higher the Nepalese worker‟s remittance higher is the consumption and investment pattern which is showing positive relation and so do Javaid (2017), that remittance is positively related with consumption and investment but Uprety (2017) shows that there is no evidence that remittances are used for investment; however, they had positive and statistical significant causality to consumption.

The worker‟s remittance can lead to domestic currency appreciation i.e remittance generally comes in foreign currency that is valued higher than local currencies in Nepal. Remittance constitutes important sources of foreign exchange for the poor countries. Which have substantial development impact as can be understood from micro and macro point of view. From macro frontier, remittances are used to make import payments and are used for productive investment by the government, Salim (2005). This study found and also agreed to have positive relationship between worker‟s remittance and FOREX, as higher the worker remittance higher will be the FOREX and vice versa.

# CHAPTER V CONCLUSION

47

This is the final chapter that involves summary, conclusions and implications of the research work. The facts and findings from secondary data analysis are presented in this chapter. The first part deals the summary of the research; second part deals the conclusion of the research and third with the implication of the research.

# Summary

Worker‟s Remittance is an important source of foreign income for developing countries like Nepal, increasing dramatically in size over recent decades. It is private income that is regularly or periodically transferred from international migrants to family members in their country of origin.

The objective of the study was to analyzed the contribution and trend of worker‟s remittance on GDP, C, I, S and FOREX. This study gives a detailed background of worker‟s remittance, objectives of the study is to examine the relationship between worker‟s remittance and macroeconomic variables. This research study was structured around research design, target population, sample design, data collection procedures and instruments, and data analysis and presentation. The sample comprised of taking 33 years of data of worker‟s remittance, GDP, Consumption, Saving, Investment and FOREX from total population by using convenient sampling method that met the eligibility criteria. To achieve the objectives of the study, analytical research design has been employed.

The study found and discussed the results of empirical testing contribution of workers remittance on Nepalese economy. Data are analyzed by using appropriate statistical tools techniques using MS Excel. In analysis part, interpretation and comments are also made wherever necessary. The average of worker‟s remittance and macroeconomic variables are 142.05, 705.08, 632.24, 74.58, 240.23 and 213.87 respectively. Major findings of the study were the correlation analysis of GDP, consumption, saving, investment and FOREX to worker‟s remittances which is

0.9846, 0.9875, 0.8790, 0.9791 and 0.9868 respectively. The regression coefficient is positive for total worker‟s remittances inflow and GDP, saving, consumption, investment and FOREX i.e. 3.33, 3.04, 0.31, 1.39 and 1.35 respectively. This shows that there is positive correlation and significance between worker‟s remittance with GDP, saving, investment, consumption and FOREX. The P-value of worker‟s remittance and macro economic indicator is less than 5%. Thus, the result indicates that higher the total remittances inflow, higher would be the macroeconomic indicator. This shows that Nepalese economy was dependable.

# Conclusion

This research found that flow of worker‟s remittance income is increasing every year. There is positive relationship with the Nepalese economy which helps to reduces poverty, increase living standard, increase investment, consumption pattern in house hold etc. The contribution of worker‟s remittance income is one third of GDP of country which is very high. Nepal is fourth largest remittance income received country in the world as compare of GDP. Which showed that Nepalese economy was leads to dependency to worker‟s remittances.

The regression coefficient is positive for total worker‟s remittances inflow, GDP, saving, consumption, investment and FOREX. The regression coefficient for total remittance inflow is positive and significant. This shows that there is positive correlated and significance between worker‟s remittance with GDP, saving, investment, consumption and FOREX. Thus, the result indicates that higher the total worker‟s remittances inflow, higher would be the macroeconomic indicator.

Hence, If national saving to be insufficient to support the level of investment necessary to sustain a high level of long-run economic growth without excessive dependence foreign capital, it causes risk to growth and financial stability. The remittances can produce long term impact only if it is channeled into productive investment. The correlation ship between remittance and investment is significant. The data also showed that if there is any disturbance in the inflow of worker‟s remittances, then the Nepalese economy will be imbalance.

# Implications

Nearly four millions young individual have left Nepal for foreign employment primarily for the reason that the employment opportunity in the country are virtually none existent. The country is exporting unemployment to the other countries rather than bringing sound policy action to retain this workforce within the country. The research may be useful for them who are concerned directly or indirectly with effect of remittances income analysis of the country. On the basis of above analysis and findings of the study, following implication can be drawn out.

* + - Nepal needs to further formulate policies that a) send more worker‟s remittances through official rather than unofficial channel. b) Increase the levels of worker‟s remittance by encouraging migrants to hold their saving in financial assets in the country rather than holding them abroad and c) encourage migrants to become investor in productive assets in the country.
		- More than 50 % of the remittances are entering into the country through illegal channels which are not recorded in the remittances data. Also the remittances from India are not included in the worker‟s remittance of current account of the country. So the government should make the policy to stop illegal channels for the worker‟s remittance inflow.
		- The government should develop appropriate policies and strategies to train and educate remitters so that remittance received can be effectively and efficiently utilized in investment decision which will positively affect in Nepalese economy.
		- The government and policymaker must make measures that could lower the cost of remittance transaction for poor households and to strengthen financial infrastructure supporting remittances which results in reducing poverty, smoothing consumption, providing working capital for small scale enterprises and increasing household expenditure in areas considered to have the high social values.
		- The future researcher can study by taking multivariable like business planning, changes in currency values, government policies, interest rate change affecting the GDP of the country and can take longer period of data so that more reliable results can be obtained. More advanced technologies can be applied so that the results obtained from the research can be generalized in other setting.

# REFERENCES

Aboulezz, N. (2015). Remittances and economic growth nexus: Empirical evidence from Kenya. *International Journal of Academic Research in Business and Social Sciences*, *5*(12); 285-296

Ahmed, H.A and Uddin, G.S (2009). Export, imports, remittance and growth in Bangladesh: An empirical analysis*. Trade and Development Review*, *2*(2); 79-92.

Ajaero, C. K. (2017). The linkage between international migration remittance and household welfare in Nigeria. *Migration and Development 7*(1); 40-54.

Arifeen, A. (2013). Understanding the contribution of remittances at the macroeconomic and household level and exporting how these transfer could be better leveraged for development in Bangladesh. *International Organization for Management,* Dhaka, Bangladesh

Aryal, K. (2016). *Role of remittance in economic development of Nepal*. An Unpublished M.phil Thesis, KUSOM, Kathmandu, Nepal.

Azem, M. and Khan, A. (2011). Workers remittances and economic growth: evidence from Azerbaijan and Armenia. *Global Journal of Human Social Science, 11*(7); 41-46.

Bhatta, G.R. (2013). Remittances and trade deficit nexus in Nepal: A VECM approach. *NRBWP14.*

Bureney, A. N. (1987). Worker‟s remittance from the middle east and their effect on Pakistan‟s economy. *The Pakistan Development Review, XXVI*(4); 746-761.

Byar, Y. and Karamelikli, H. (2015). Remittances and economic growth in Turkey*.*

*Ecoforum*, *vol.4*, issue 2(7); 33-40

Chaudhary, S. K. (2007). Role of remittance on economic development of Nepal. An Unpublished Master Thesis, P.N. Campus, Pokhara, Nepal.

Dhungana, A.K and Pandit, D. (2014). Socio-economic impact of remittance on households in Lekhnath Municipality, Kaski, Nepal. *Economic Literature, volXII; 39-49.*

Dhungana, R. B. (2012). Remittance and Nepalese economy. Pokhara University, Kaski, Nepal.

Gapen,T. M. et al. (2009). [Do worker‟s remittances promote economic growth?](https://ideas.repec.org/p/imf/imfwpa/09-153.html)*.*IMF Working Papers, *9*(153); 1-22.

Javed, M., Arif, U. and Quyyum, A. (2008). Impact of remittances on economic growth and poverty. *Academic Research International, 2*(*1*); 433-447

Javaid, W. (2017). Impact of foreign financial inflow on economic growth of Pakistan. *Journal of Behavioural Economics*, *Finance, Entrepreneurship, Accounting and Transport*, *5*(1); 10-18.

Karagor, K. (2009). Workers' remittances and economic growth: evidence from Turkey. *Journal of Yasar University, 4*(13); 1891-1908.

Luth, E. and Arranz, R. M. (2006). A Gravity model of worker‟s remittances.

*International Monetary Fund,* Wp/06/290.

Mundaca, B. G. (2009*).* Remittances, financial market development, and economic growth: The Case of Latin America and The Caribbean. *Review of Development Economics, 13*(*2*); 288-303.

Meyer, D. & Shera, A. (2017). EconomicA: The impact of remittance on economic growth. *18*(2); 147-155.

Meyer, D. and Shera, A. (2013). Remittances and their impact on economic growth. *Social Management Sciences,* Albania, Hungary*.*

MoF. (2011). Economic Survey 2010/11. *Economic Survey*.

Muller, B. U. & Thieme, S. (2007). Livelihood strategies in a marginal area of Nepal (Far West Nepal), *Issues in Geographical Marginality*; pp. 21-34.

Ouwatayo, A. and Ayandibu, O. A. (2017). The impact of remittance on development in Nigeria: Challenges & Prospects. *Journal of Sociology & Social Anthropology*, *5*(3); 311-318.

Rahaman, S. M. A. and Wadud, A. (2014). Macroeconomic determinants of remittances in South Asian countries: A Dynamic Panel*. Rethinking Political Economy and Development.* Dhaka, Bangladesh*.*

Ratha, (2005). Worker‟s remittances: an important and stable source of external source of external development finance. *Development Impact and Future Prospect.* Washington, D.C.: World Bank.

Spatafora, N. (2005). Worker‟s remittances and economic development, *World Economic Outlook* in *(April)*, ed. , 69-84.

Siddique, A. et al. (2010). Remittances and economic growth: Emperical Evidence from Bangladesh, India and Srilanka*. Journal of Development Studies*, *48*(8); 1045-1062.

Sebil O. and Abdulazee, A. B. (2015). Impact of remittances on economic growth in Nigeria: further evidence, *Economic Bulletin*, *35*(1); 247-258.

Sheskin, D, J. (2011). *Handbook of parametric and nonparametric statistical procedures* (5th ed.). Boca Raton: Chapman & Hall /C*.*

*The Himalayan Times* (2018, April30).

Uprety, D. (2017). The impact of remittance on economic growth in Nepal. *Journal of Development Innovations, 1*(1); 114-134

Wagle, R. U. (2012) Socio economic implication of increasing foreign remittance to Nepal: Evidence from the Nepal living standard survey. *International Migration, 50*(4); 186-207.

Westfall, P. H. (2014). Kurtosis as peakedness, 1905 - 2014. R.I.P. *HHS Public Access, 68*(3); 191-195.

World Bank (2006). Global economic prospects: economic implications of remittances and migration. Washington, D.C: World Bank.

World Bank (2018). Record high remittances to low- and middle-income countries in 2017

Yaseen, H. S. (2012*).* The positive and negative impact of remittances on economic growth in MENA countries. *The Journal of International Management Studies*, *7*(1); 7-15.

# APPENDIX

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Fiscal Year | Worker's Remittanc e (billons) | GDP(billi ons) | Rem as% of GDP | consumption( billions) | Rem as % of consumption | Saving(billio ns) | Saving as % of Rem | Investment (billions) | Rem as% of investm ent | FOREX(bilions | Rem as% of FORE X |
| 1984/85 | 0.69 | 46.58 | 1.48 | 40.35 | 1.71 | 6.24 | 904.35 | 10.18 | 6.78 | 2.38 | 28.99 |
| 1985/86 | 0.81 | 55.73 | 1.45 | 49.85 | 1.62 | 5.89 | 727.16 | 10.6 | 7.64 | 3.46 | 23.41 |
| 1986/87 | 1.29 | 63.86 | 2.02 | 56.54 | 2.28 | 7.32 | 567.44 | 12.9 | 10.00 | 4.18 | 30.86 |
| 1987/88 | 1.71 | 76.91 | 2.22 | 69.30 | 2.47 | 7.60 | 444.44 | 15.24 | 11.22 | 7.06 | 24.22 |
| 1988/89 | 1.63 | 89.27 | 1.83 | 79.12 | 2.06 | 10.15 | 622.70 | 19.42 | 8.39 | 8.31 | 19.61 |
| 1989/90 | 1.75 | 103.4 | 1.69 | 95.27 | 1.84 | 8.14 | 465.14 | 19.08 | 9.17 | 11.59 | 15.10 |
| 1990/91 | 2.13 | 120.4 | 1.77 | 108.86 | 1.96 | 11.52 | 540.85 | 25.07 | 8.50 | 18.66 | 11.41 |
| 1991/92 | 2.32 | 149.5 | 1.55 | 133.28 | 1.74 | 16.21 | 698.71 | 31.62 | 7.34 | 24.25 | 9.57 |
| 1992/93 | 2.99 | 171.5 | 1.74 | 148.30 | 2.02 | 23.17 | 774.92 | 39.65 | 7.54 | 33.51 | 8.92 |
| 1993/94 | 3.47 | 199.3 | 1.74 | 170.05 | 2.04 | 29.22 | 842.07 | 44.64 | 7.77 | 42.02 | 8.26 |
| 1994/95 | 5.06 | 219.2 | 2.31 | 186.71 | 2.71 | 32.47 | 641.70 | 55.23 | 9.16 | 43.09 | 11.74 |
| 1995/96 | 4.28 | 248.9 | 1.72 | 214.49 | 2.00 | 34.43 | 804.44 | 68.01 | 6.29 | 44.44 | 9.63 |
| 1996/97 | 5.6 | 280.5 | 2.00 | 241.35 | 2.32 | 39.16 | 699.29 | 71.08 | 7.88 | 48.54 | 11.54 |
| 1997/98 | 6.99 | 300.9 | 2.32 | 259.41 | 2.69 | 41.44 | 592.85 | 74.73 | 9.35 | 65.15 | 10.73 |
| 1998/99 | 10.32 | 342 | 3.02 | 295.47 | 3.49 | 46.56 | 451.16 | 70.06 | 14.73 | 76.65 | 13.46 |
| 1999/00 | 12.66 | 379.5 | 3.34 | 321.91 | 3.93 | 57.58 | 454.82 | 92.27 | 13.72 | 93.84 | 13.49 |
| 2000/01 | 47.22 | 441.5 | 10.69 | 390.01 | 12.11 | 51.50 | 109.06 | 98.65 | 47.87 | 105.2 | 44.90 |
| 2001/02 | 47.54 | 459.2 | 10.35 | 415.84 | 11.43 | 43.60 | 91.71 | 93.02 | 51.11 | 105.9 | 44.89 |
| 2002/03 | 54.2 | 492.2 | 11.01 | 450.09 | 12.04 | 42.14 | 77.75 | 105.38 | 51.43 | 108.3 | 50.06 |
| 2003/04 | 58.59 | 536.8 | 10.92 | 473.69 | 12.37 | 63.06 | 107.63 | 131.67 | 44.50 | 130.2 | 45.00 |
| 2004/05 | 65.54 | 589.4 | 11.12 | 521.30 | 12.57 | 68.11 | 103.92 | 155.91 | 42.04 | 129.9 | 50.45 |
| 2005/06 | 97.69 | 654.1 | 14.94 | 595.33 | 16.41 | 58.76 | 60.15 | 175.63 | 55.62 | 165 | 59.20 |
| 2006/07 | 100.14 | 727.8 | 13.76 | 656.37 | 15.26 | 71.45 | 71.35 | 208.78 | 47.96 | 165.1 | 60.64 |
| 2007/08 | 142.68 | 815.7 | 17.49 | 735.47 | 19.40 | 80.19 | 56.20 | 247.27 | 57.70 | 212.6 | 67.11 |
| 2008/09 | 209.69 | 988.3 | 21.22 | 895.04 | 23.43 | 93.23 | 44.46 | 313.03 | 66.99 | 286.5 | 73.19 |
| 2009/10 | 231.73 | 1193 | 19.43 | 1056.18 | 21.94 | 136.59 | 58.94 | 456.49 | 50.76 | 268.9 | 86.18 |
| 2010/11 | 253.55 | 1367 | 18.55 | 1176.03 | 21.56 | 190.92 | 75.30 | 519.27 | 48.83 | 272.2 | 93.15 |
| 2011/12 | 359.55 | 1527 | 23.54 | 1359.54 | 26.45 | 167.97 | 46.72 | 526.89 | 68.24 | 439.5 | 81.81 |
| 2012/13 | 434.58 | 1695 | 25.64 | 1516.13 | 28.66 | 178.88 | 41.16 | 632.6 | 68.70 | 533.3 | 81.49 |
| 2013/14 | 543.29 | 1965 | 27.65 | 1730.31 | 31.40 | 234.23 | 43.11 | 808.76 | 67.18 | 665.4 | 81.65 |
| 2014/15 | 617.29 | 2120 | 29.11 | 1934.05 | 31.92 | 196.10 | 31.77 | 822.3 | 75.07 | 824.1 | 74.90 |
| 2015/16 | 665.06 | 2249 | 29.58 | 2161.52 | 30.77 | 91.64 | 13.78 | 763.56 | 87.10 | 1039 | 64.00 |
| 2016/17 | 695.45 | 2599 | 26.76 | 2326.85 | 29.89 | 315.75 | 45.40 | 1208.7 | 57.54 | 1080 | 64.42 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| R Square | 16513 |  |  |  |  |  |
| Adjusted R | 0.9684 |  |  |  |  |
| Square | 29949 |  |  |  |  |
| Standard | 128.83 |  |  |  |  |
| Error | 16022 |  |  |  |  |
| Observation s | 33 |  |  |  |  |
| ANOVA |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Signific ance F* |
|  |  | 163090 | 163090 | 982.61 | 4.832E- |
| Regression | 1 | 97.33 | 97.33 | 88897 | 25 |
|  |  | 514525. | 16597. |  |  |
| Residual | 31 | 0335 | 58173 |  |  |
|  |  | 168236 |  |  |  |
| Total | 32 | 22.36 |  |  |  |
|  |  |  |  |  |  |
|  | *Coeffici* | *Standar* |  |  | *Lower* | *Upper* | *Lower* | *Upper* |
|  | *ents* | *d Error* | *t Stat* | *P-value* | *95%* | *95%* | *95.0%* | *95.0%* |
|  | 232.25 | 27.0272 | 8.5932 | 1.0501 | 177.12 | 287.3 | 177.12 |  |
| Intercept | 03062 | 1767 | 00717 | 3E-09 | 793 | 727 | 8 | 287.37 |
| Worker's | 3.3286 | 0.10618 | 31.346 | 4.8321 | 3.1120 | 3.545 | 3.1120 |  |
| Remittance | 62012 | 8417 | 75246 | 1E-25 | 893 | 235 | 9 | 3.5452 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R Square | 1286 |  |  |  |  |  |  |  |
| Adjusted R | 0.97442 |  |  |  |  |  |  |  |
| Square | 1972 |  |  |  |  |  |  |  |
| Standard | 105.526 |  |  |  |  |  |  |  |
| Error | 1806 |  |  |  |  |  |  |  |
| Observation s | 33 |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significa nce F* |  |  |  |
|  |  | 1358646 | 13586 | 1220. |  |  |  |  |
| Regression | 1 | 7.03 | 467 | 074 | 1.8E-26 |  |  |  |
|  |  | 345209. | 11135 |  |  |  |  |  |
| Residual | 31 | 0185 | .775 |  |  |  |  |  |
|  |  | 1393167 |  |  |  |  |  |  |
| Total | 32 | 6.05 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coeffici* | *Standar* |  | *P-* | *Lower* | *Upper* | *Lower* | *Upper* |
|  | *ents* | *d Error* | *t Stat* | *value* | *95%* | *95%* | *95.0%* | *95.0%* |
|  | 200.689 | 22.1380 | 9.065 | 3.16E |  | 245.8 | 155.53 |  |
| Intercept | 4477 | 3914 | 3669 | -10 | 155.539 | 4 | 9 | 245.84 |
| Worker's | 3.03814 | 0.08697 | 34.92 | 1.85E |  | 3.215 | 2.8607 | 3.2155 |
| remittance | 157 | 911 | 9555 | -26 | 2.86075 | 54 | 5 | 4 |

*Regression Statistics*

Multiple R

0.8790

13246

R Square

0.7726

64286

Adjusted R Square

0.7653

30876

Standard Error

36.824

10553

Observation

s 33

ANOVA

*df SS MS F*

*Signific ance F*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 142872. | 14287 | 105.36 | 1.71E- |
| Regression | 1 | 7088 | 2.709 | 22087 | 11 |
|  |  | 42036.4 | 1356.0 |  |  |
| Residual | 31 | 5719 | 1475 |  |  |
|  |  | 184909. |  |  |  |
| Total | 32 | 166 |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | *Coeffici* | *Standar* | *Lower* | *Upper* | *Lower* | *Upper* |
| *ents* | *d Error t Stat* | *P-value 95%* | *95%* | *95.0%* | *95.0%* |
|  | 30.328 | 7.72522 3.9258 | 0.0004 14.572 | 46.08 |  |  |
| Intercept | 09208 | 501 5226 | 48722 39 | 4 | 14.6 | 46.084 |
| Worker’s | 0.3115 | 0.03035 10.264 | 1.7112 0.2496 | 0.373 |  |  |
| remittance | 51163 | 1974 6095 | 6E-11 48 | 5 | 0.25 | 0.3735 |

*Regression Statistics*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 0.97913 |  |  |  |  |  |
| Multiple R | 1015 |  |  |  |  |
|  | 0.95869 |  |  |  |  |
| R Square | 7544 |  |  |  |  |
| Adjusted R | 0.95736 |  |  |  |  |
| Square | 5206 |  |  |  |  |
| Standard | 62.8891 |  |  |  |  |
| Error | 584 |  |  |  |  |
| Observations | 33 |  |  |  |  |
| ANOVA |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significa nce F* |
|  |  | 2845895. | 3E+ | 719. | 5.12E- |
| Regression | 1 | 8 | 06 | 6 | 23 |
|  |  | 122606.4 | 395 |  |  |
| Residual | 31 | 336 | 5 |  |  |
|  |  | 2968502. |  |  |  |
| Total | 32 | 234 |  |  |  |
|  |  |  |  |  |  |
|  | *Coeffici* | *Standard* | *t* | *P-**valu* | *Lower* | *Upper* | *Lower* | *Upper* |
|  | *ents* | *Error* | *Stat* | *e* | *95%* | *95%* | *95.0%* | *95.0%* |
|  | 42.7214 | 13.19333 | 3.23 | 0.00 | 15.8134 |  |  |  |
| Intercept | 1166 | 877 | 81 | 3 | 2 | 69.629 | 15.81 | 69.629 |
| Worker’s | 1.39047 | 0.051835 | 26.8 | 5E- | 1.28475 |  |  |  |
| remittance | 8362 | 885 | 25 | 23 | 8 | 1.4962 | 1.285 | 1.4962 |

*Regression Statistics*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0.9868 |  |  |  |  |  |  |  |
| Multiple R | 54754 |  |  |  |  |  |  |  |
|  | 0.9738 |  |  |  |  |  |  |  |
| R Square | 82305 |  |  |  |  |  |  |  |
| Adjusted R | 0.9730 |  |  |  |  |  |  |  |
| Square | 39799 |  |  |  |  |  |  |  |
| Standard | 48.225 |  |  |  |  |  |  |  |
| Error | 58714 |  |  |  |  |  |  |  |
| Observation s | 33 |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Signific ance F* |  |  |  |
|  |  | 2688365 | 268836 | 1155. | 4.17E- |  |  |  |
| Regression | 1 | .861 | 5.861 | 935 | 26 |  |  |  |
|  |  | 72096.9 | 2325.7 |  |  |  |  |  |
| Residual | 31 | 2492 | 07255 |  |  |  |  |  |
|  |  | 2760462 |  |  |  |  |  |  |
| Total | 32 | .785 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coeffici* | *Standar* |  | *P-* | *Lower* | *Upper* | *Lower* | *Upper* |
|  | *ents* | *d Error* | *t Stat* | *value* | *95%* | *95%* | *95.0%* | *95.0%* |
|  | 21.912 | 10.1171 | 2.1658 | 0.038 | 1.27805 | 42.54 | 1.2780 | 42.546 |
| Intercept | 03306 | 0961 | 39247 | 133 | 2 | 601 | 52 | 01 |
| worker's | 1.3514 | 0.03974 | 33.999 | 4.17E | 1.27037 | 1.432 | 1.2703 | 1.4325 |
| remittance | 46704 | 9554 | 04059 | -26 | 7 | 516 | 77 | 16 |