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Impact of Civil war on the Socio-economic Dynamics of Nepal's Urban-Rural Divide

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List of Acronyms

CBS	Central Bureau of Statistics of Nepal
CPA	Comprehensive Peace Accord
CPN – M	Communist Party of Nepal - Maoist
GDP	Gross Domestic Product
IV	Instrumental Variable
IV-2SLS	Instrumental Variable – Two Stage Least Squares
LSMS	Living Standard Measurement Survey
MOF	Ministry of Finance, Nepal
NLSS	Nepal Living Standard Survey
NRs	Nepali Rupees
OB	Oaxaca Blinder
OLS	Ordinary Least Squares
PSU	Primary Sampling Unit
SPA	Seven Party Alliance

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Abstract

This paper tries to analyze the impact of civil war on the urban-rural divide and also examine how the divide has changed across time. With the help of timely convenient secondary data this study aims combine these two areas of development economics, adding to small portion of literature that looks at impact of civil war on inequality. Using a within country approach, this paper examines the situation of urban-rural divide across districts in affected at varying levels of conflict intensity. By applying an Oaxaca Blinder decomposition on socio-economic indicators across time periods, this paper attempts to analyze the contribution of urban-rural gap in districts, at different conflict intensity levels on the overall gap. In addition, it investigates the association between remittances and socio-economic welfare indicators as a result of civil war. The results suggest that civil war played a significant role in closing in the urban-rural divide in terms of household expenditure in areas immensely affected by the war. But, the is a long way to go before the urban-rural divide in asset holdings decrease unless effective policies for land reforms are implemented to balance out the gap. The results also reiterate the importance of remittances during civil war or conflict.

Relevance to Development Studies

Urban-rural divide like any other form of inequality has dire consequences if not addressed. As we saw in the case of Nepal, this divide was one of the reasons which caused the breaking out of the decade long civil war. In this study, we aimed to combine urban-rural divide and civil war as both are important in the field of development studies. We aimed to investigate how civil war affected urban rural divide in Nepal. The results indicate that civil war may lead to decrease in the divide in terms of expenditure but in terms of long term indicators like assets a wide gap exists. Civil war cannot be the solution to incite decline in the urban rural divide instead necessary policy measures should be taken to wipe out the divide so that it does not lead to a civil conflict.

Keywords

Chapter 1 | Introduction

1.1 Background

The Rural–Urban divide has been a prominent feature of any developing country. Nepal, being no exception to this phenomenon, has been exposed to this socio-economic divide. Developing countries, between 1980 and 2011, on average, have achieved annual growth rate of 3.3 percent (Mahmood et al. 2014: 19). This has not been helpful on closing inequality between urban and rural areas. Whereas, Nepal has achieved moderate growth over the past few decades, experiencing annual growth rate averaged at 4.38 percent from 1993 until 2016 (Trading economics 2017). But, we cannot see comparable pictures of development when we look at rural and urban areas. Where urban areas have advanced forward in all aspects of development, in rural areas it seems like time has stood still. Looking at economic indicators, average annual income in urban and rural areas were NRs. 318,167 (4469 USD)[1] and NRs. 171,950 (2415 USD) respectively as of 2010/11 (CBS 2011b). A difference of 2054 USD in average annual income shows the income inequality between the regions and shows the difference in economic activity.

In developing countries, the fruits of growth are not being shared with the rural areas, as urban areas reap huge benefits from the biased development policies and activities, while giving less priority to the majority of population in rural areas (Lipton 1977). As Lipton (1977: 74) puts it, there is failure of development as the rural population do not gain from the development process. Policies are focused on urbanization as rural regions fall behind. It is expected that rural areas develop from spill-over effects of the urbanization process (Castro et al. 2016). The presence of economic dualism, where there is a traditional agricultural (rural) sector and a modern industrialized (urban) sector is one of the main reasons why the resources are committed to the urban sector to please the powerful elites. The development strategy favours the urban areas at the expense of the developing the rural areas, as the urban population have greater influence on the policy makers (Fan et al. 2005).

Lipton's theory to a large extent matches the context of Nepal. As an economy dominated by the agricultural sector, 33.1 % of its GDP and 65.7% of employment (MOF 2015) is contributed by the agricultural sector. In 1991 the contribution of the agricultural sector to the GDP was 45% employing 81.2% of population (MOF 2008) while, 90% of the population were living in rural areas (World Bank 2017). Since late 1940s the development plan of the government strongly favoured import substitution policy heavily benefitting urban areas. While, the rural economy acted only as a supplier of resources to supplement the economic activities in urban areas (Sharma 2006a). With majority of the population living in rural areas, 89.1% of the total population in 1995 (World Bank 2017), the focus of development policies was only on the urban areas. As rural economy suffered, rural households were pushed into poverty. There was growing discontent among them against the state, for the

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[1] 1 U.S. Dollar = NRs. 71.20 as of 1st July 2010 (NRB 2017)

failure to include them in the development process (Sharma 2006b). The underdevelopment and chronic poverty prevailing in the rural areas and persistence of political failures led to the inception of the decade long civil war in February 1996 by Communist Party of Nepal-Maoist (Do and Iyer 2010).

Supplementing this urban bias of development, the occurrence of the decade long civil war (1996-2006) has hampered the development process and growth of Nepal. The economic consequences were severe due to lack of economic activity in areas affected by the civil war (Murshed and Gates 2005). During the span of the civil war, there was a mass exodus of the labour force, especially from the rural areas to less affected urban areas for security reasons and to avoid being forcefully recruited by the rebels, as well as outside of the country to find employment and provide for their families.

After more than a decade of civil war, in November 2006 the peace agreement was signed by the Government and the CPN-Maoist, with stipulations that the rebel group would be ensured participation in the Government (Nepal et al. 2011). But even after the end of the civil war, there seemed to be no improvement in the economy as political squabbles hampering progress. Due to lack of employment opportunities, the trend of migration continued as more youth in the labour force migrated to foreign countries.

But, as hordes of young people from the domestic labour force migrated abroad, Nepal has benefitted tremendously from the inflow of remittances. Remittance has become an important economic resource for households by raising their standard of living through increased consumption (Thapa and Acharya 2017). At the macro level, Nepalese economy has become dependent on remittances. The contribution of remittances to the GDP has grown from 2.45% in 2001 to 11.21% in 2002, rising at a rapid pace since then, to over 30% of GDP as of 2015 (World Bank 2017). Remittance has significantly increased the foreign exchange reserves and contributed heavily towards sustaining a positive BOP even though trade deficit has been increasing (Sapkota 2013). Most importantly remittance inflow has contributed heavily in decreasing poverty in Nepal. According to World Bank (2006: ii) the substantial rise in remittance inflows contributed to around 33 to 50 percent of the 26 percent fall in poverty head count from 1995-96 to 2003-04.

Acknowledging all these aspects, this study aims to examine into the urban-rural divide in context of Nepal and how the civil war has impacted the urban-rural differences in terms of various socio-economic indicators of Nepalese households. It is very important to study how the urban-rural gap may have changed and how much of the gap persists. The war in many ways has changed the Nepalese economy. It is necessary its impact on the urban rural gap like we study any other type of inequality. Civil war can have a dampening effect on any attempt of government to close the divide by affecting economic activity. It can lead to increasing the urban-rural gap as the poor and marginalized people suffer the most. So, there is a need to study the impact of civil war on urban-rural gap and analyze the changes. Further, this can be helpful as policymakers to see in which regions the divide is largest and work towards reducing the divide. So, it is necessary to examine how the war

changes the divide. In addition, we need to examine the contribution of remittances to households as it has played an important role in bringing out of poverty and may well have contributed in decreasing urban rural gap.

1.2 Nepalese Civil War: The so-called "People's War"

On 13th February 1996, the so-called "People's War" began when the People's Liberation Army, the army wing of the Communist Party of Nepal – Maoist (CPN – M), attacked police posts in districts of Nepal. The decade long civil war came to an end on November 21, 2006 when CPN – M signed the Comprehensive Peace Accord (CPA) with the Seven Party Alliance[2] (SPA), the democratic coalition government (Pradhan 2009). Claiming more than 13000 lives and displacing more than two hundred thousand people the civil war caused damages worth billions of rupees to the economy (Tiwari 2009) and is considered as *"one of the highest intensity internal conflict"* during the past decade (Murshed and Gates 2005: 121).

The seeds of the war were sown way before the actual start of the war. With almost 90% of the population residing in the rural areas and depending on agriculture for their livelihood, the import substitution policy implemented since mid-1950s favoured the urban areas as resources were from the rural areas to urban areas. With limited resources, the agriculture sector started to fall behind due to decline in productivity. With no work alternatives, there was increase in unemployment and more households went into poverty (Sharma 2006a). With poverty rising, the urban-rural divide was prominent. Further, rising political turmoil, corrupt institutions and lack of economic development started only fuelled sense of revolt among the disadvantaged rural population and incited them to form the rebellion group which came to be known as the Maoists group or CPN-M (Sharma 2006a, 2006b).

Bhattarai (2003: x) claimed that largely significant gap in the labour involved in agriculture and contribution of agriculture in the gross domestic product showed how 'pathetic and deteriorating' the situation in agriculture dominated rural Nepal was. He further argued that this situation explained why there was sense of revolt growing among the proletariat. This work by Bhattarai, was considered as the 'politico-economic rationale of the people's war' by the Prachanda, Chairman of CPN-M (Basnett 2009). The Maoists began the rebellion to fight the corrupt government, who were depriving the rural poor from economic justice, and the powerful urban elites holding most of the wealth (Pradhan 2009, Sharma 2006b)

With the setting, already in favour of the rebellion, rural people were ready to revolt against monarchy, the events of the war unfolded with the insurgent group parting ways with its parent communist party, United People's Front, and abandoning the elections in 1994 to start the decade long armed struggle against the govern-

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[2] SPA was an alliance formed by seven constitutional parties discarded by King Gyanendra in 2005 (Lawoti and Pahari 2009: 338).

ment of Nepal which began in February 1996 (Nepal et al. 2011). The Maoist revolution started in their heartland districts of Rolpa and Rukum, also known as the 'red zone'. The war eventually began when the armed wing of the CPN–M launched attacks on weakly guarded police posts in few districts (Mercy Corps 2003).

With support from the rural population especially the marginalized poor the Maoist insurgency was growing. The government reacted with police raids in which large number of people were subject to acts torture and forceful arrests while, many were killed for suspected link with Maoist rebels. This act displaced thousands who fled to avoid altercations with the police. This further strengthened the support for the insurgency and by 2001 the Maoists were in firm control of the hilly areas in mid-western region and were also operating all over the country (Gobyn 2009). After various failed peace negotiations in latter part of 2001 the Maoists abandoned the peace talks and waged war with bomb attacks in various parts of the country destroying government property. On 26th November 2001, the Maoist group were declared as 'terrorist' group by the government. As a state of emergency was imposed across the country, the Royal Nepal Army was readied by the government for counter-insurgency with strong foreign governments (Gobyn 2009, Pradhan 2009).

Violent altercations between the army and rebels led the death toll rise to over 3000 in 2002 (Do and Iyer: 29). As the war continued on the backdrop, the political scenario would change completely with King Gyanendra's action to dissolve the government citing reasons of incompetency and form a new one by selecting the ministers by himself in October 2002. Another round of talks was initiated in early 2003 with ceasefire being declared. But, as talks failed to mature into any agreement the Maoists discarded the ceasefire (Gobyn 2009).

The tables turned against the monarchy when King Gyanendra seized state power by mobilizing the Royal Nepal Army on 1st February 2005. The royal coup was condemned by the supporting international governments as they would block military aid to Nepal. This pushed parliamentary parties to create Seven Party Alliance (SPA) who then joined hands with the Maoists to carry out revolt against the Monarchy. On 21 April 2006, the King gave up power reinstating parliamentary democracy and a new government was formed. The government initiated peace talks with the Maoists reinstating cease fire. Finally, on 21st November 2006, the government together with the Maoists signed the Comprehensive Peace Accord CPA) to end the decade long civil war agreeing on carrying on peaceful and fair constituent assembly elections (Gobyn 2009, Pradhan 2009).

1.3 Research Objective

The widening socio-economic divide between rural and urban regions in most of the developing countries is an important issue in the field of development studies. With various studies (Fambon 2017, Sicular et al 2007, Yang 1999) in this field reporting increased income gap between urban and rural households, Nepal has suffered similar fate of countries reported in these studies as Sharma (2006a) argues the widening gap was one of the reasons of that led to the civil war.

The objective of this study is to examine the factors that can explain the changes in the underlying gap in the socio-economic indicators in the Nepalese context, across various time periods. But, we aim to incorporate the impact of civil war and examine how the varying intensity of the war in the districts and urban/rural areas may have had different degree of impact, further widening or closing in the urban-rural divide. So, this study aims to investigate the impact of civil war along with other demographic factors on the urban rural divide. In addition, this study will also look at the impact of remittances inflow, a crucial element in Nepalese economy, on the household socio-economic indicators.

With the help of survey data, the socio-economic indicators that will be examined. The impact of remittances on the socio-economic indicators will be examined as well. This research is exploratory in terms of looking at the impact of the decade long civil war on widening or closing in of the urban-rural gap. There have not been studies combining these two areas of development studies so, intuitively the hypothesis is that urban-rural gap is expected to increase because of civil war due to greater impact of lack of economic activity on the poor. Also, studies on impact of conflict on inequality show that conflicts could not only lead to increase in income inequality but also the post-conflict income inequality could increase to higher levels than during conflict (Bircan et al 2017). So, we come to the hypothesis that civil war causes the urban-rural divide to widen. In addition, it is expected that remittances will have positive impact on the socio-economic indicators of the households.

The Research Questions are as follows:

- What are the changes in the urban-rural gap in terms of expenditure and asset value in the context of Nepal and if changes are due to the impact of civil war?

- What is the contribution of remittance inflow on household expenditure and assets value of households?

1.4 Limitations of the Study

This study is based on secondary data i.e. three waves of Nepal Living Standard Survey (NLSS) data sets. There were some problems with the compatibility of the data sets of NLSS I and II with NLSS III in terms of data labels and inconsistency in variable definitions. So, unfortunately the panel data available in the data sets could not be utilized for analysis because of this inconsistency. Few additional questions have been added in NLSS III which has enhanced the data quality but the unavailability of these data in prior surveys led to dropping the variables of the third survey which could have strengthened our analysis. Also, missing data in NLSS I led to some of the observations being dropped during empirical analysis.

Apart from this, unavailability of consistent data on other socio-economic variables (income and migration) led to them not being considered for analysis. In terms of the methodology we faced endogeneity problem which we have attempted to address. Whereas, for measurement of conflict we have used secondary data

which only takes number of deaths caused by conflict into account and categorically defines conflict intensity into four levels. But, conflict led to large of kidnappings and various human rights violations which have not been accounted for. Also, migration of households that resulted from conflict have not been considered in the analysis but we have used migration data of the head of household for robustness checks.

1.5 Contribution to Literature

Most of studies focusing on the urban-rural divide have considered factors leading to the divide in the socio-economic indicators. Whereas, the studies on civil war have aimed to find the causes of civil war and examined its negative impact on economy. This research aims to contribute to the literature by combining these two areas of development economics, which is new to the literature. Firstly, this research attempts to examine the differences between urban and rural households in terms of socio-economic indicators in the varying conflict intensity levels. The availability of data at the given time periods makes it convenient to analyze urban-rural gap of the districts before, during and after conflict which in the current literature has not been done. Secondly, it examines the contribution of urban-rural gap in different conflict intensity levels on the actual gap of expenditure and assets across the time periods of analysis. Combining these two areas of studies and examining the impact of civil war on the urban-rural divide will be main contribution of this research.

1.6 Organization of the Research paper

The organization of this research is as follows. Chapter 2 reviews the relevant theoretical and empirical literature. This chapter has been divided into three sections to cover the literature on urban-rural gap, civil war and Nepalese Civil war. Chapter 3 describes the data, variables and research methodology used to estimate the econometric model. Chapter 4 presents the results from the empirical analysis carried out and discusses their implications. Finally, the last chapter outlines conclusion from the study.

Chapter 2 | Literature Review

The literature review will focus on two major strands of literature. The first on the urban-rural gap and second on civil war. For this we have divided the chapter into 3 sections. First section we will focus on urban-rural divide. Contextual to this study, urban-rural inequality in development and urban biased policies are some reasons leading to civil war in Nepal. Then the second section will review the literature on civil war/conflict focusing mainly on its causes and impacts. In the third section, we will study the literature specific to the civil war in Nepal.

2.1 Literature on Urban-Rural Divide

The theoretical literature on the urban-rural divide has its base from the theory of 'urban bias to development' given by Lipton (1977). Lipton argues the existence of biasness towards urban areas when it comes to development decision making and emphasizes that it is a result of political power stronghold among the urban elites (Varshney 1993). Lipton based his theory on a study which measured urban-rural gap in 72 countries (majority LDCs: 63) during late 60s and early 70s (Dixon and Mcmichael 2015). In addition, Yang and Fang (2000) postulate another theory to supplement urban bias theory, which points out that industrialization is considered as the fuel for economic growth and this tends to incline government policies in favour the industrialization by taxing agricultural sector to provide additional resources and financial backing.

Lipton (1977) adds that there is urban domination in the political structure in most of the developing countries so, rural areas are excluded from policy decisions and have access to fewer resources as urban areas benefit. The taxation policies increase the burden on the rural sector for funding urban growth. This makes gap in the socio-economic welfare between the two groups clearly visible. Quoting Lipton:

> "The most important class conflict in the poor countries of the world today is not between labour and capital. Nor is it between foreign and national interests. It is between rural classes and urban classes. The rural sector contains most of the poverty and most of the low-cost sources of potential advance; but the urban sector contains most of the articulateness, organization and power. So, the urban classes have been able to win most of the rounds of the struggle with the country side" (Lipton 1977:13).

Backing Lipton, Bates (1981) emphasizes that politically powerful elites manipulate governments to make decisions in favour of industrialization. Taxing revenues from the agricultural sector to finance urban growth further decrements the economic prospects of rural population. Both Bates (1981) and Lipton (1977) reiterate that the political power is involved in making pro-urban policies restricting development in rural areas.

Developing countries often discriminate against agricultural sector (rural) when it comes policies because industrialization is seen as a catalyst to growth thus, the focus on urban areas (Fan et al 2005). Further, indirect impacts of trade reforms and exchange rate policies also have a negative impact on the agro-based rural economy, thus resulting in substantial disparity in growth between rural and urban areas (Yang and Fang 2000).

The urban focus of development tends to create spatial inequalities as urban areas benefit from economic opportunities and become better off, whereas rural regions lag far behind with little advancement. China can be taken as an example, as the major development and economic reforms starting from 1985 were focused only on urban areas, the urban-rural divide increased (Knight et al 2006). While, growth processes which tend to be less inclusive often lead to uprising of social tensions and conflict (Venables and Kanbur 2003), similar to what happened in Nepal.

Moving on to the empirical literature on the urban-rural divide, considerable amount focuses on examining the inequality and poverty aspect of the divide. Inequality in income, expenditure, living standard have been studied. Sahn and Stifel (2003) show large gaps in living standards between urban and rural regions in Africa and find no evidence on the reduction of the gap. Castro et al. (2016) confirm bias of welfare inequality towards the urban regions in Philippines for the three years (2006, 2009 & 2012) they have analyzed. Whereas, Thu Le and Booth (2014) show contrasting results from studying the urban-rural inequality in Vietnam. Their results indicate that inequality increased until 2002, but from then on declined till 2006, showing right polices can lead to closing in the urban rural gap.

Some studies (Nguyen et al 2007, Sicular et al 2007, Thu Le and Booth 2014) show that the differences in attributes of household and individual contribute to the urban-rural divide. They also argue that differences in education attainment have significant impact on reducing the gap. Fambon's (2017) study indicates that occupation has bearing on reducing the urban-rural gap while, small-sized household assure increased level of economic welfare. On the macro-level, Baliamoune-Lutz and Lutz (2004) show reforms to liberalize trade and promote FDI can lead to closing in the urban-rural inequality.

To change this unpleasant scenario, Lipton (1977) stresses on the need to increase spending on development of infrastructure and human capital in rural areas. Other studies (Bergolo and Carbajal 2010, Knight and Shi 1996, Yang and Fang 2000) emphasize on the need to improve education in rural areas. While, Fan et al (2005) argue urban bias needs to be corrected by facilitating the development of non-agriculture based economic activities and increasing investment in the rural areas.

2.2 Literature on Civil War

Most commonly used definition of civil war was given by Small and Singer (1982) in their book 'Resort to arms'. They define civil war as *"any armed conflict that involves (a) military action internal to the metropole, (b) the active participation of the national*

government, and (c) effective resistance by both sides" (Small and Singer 1982: 210). Further, they identify the threshold of 1000 deaths (military and civilian) per year for an armed conflict to be classified as a civil war. Sambanis' (2004) extensive literature review examines the definition of civil war used in empirical literature and explores the complex nature of the data leading to contrasting differences in results. He proposes an operational definition to resolve problems faced in prior researches also, suggests the need to come to uniform coding rule for defining civil war to determine the origin of the civil war.

The theoretical aspects of civil war are surveyed extensively in a literature review conducted by Blattman and Miguel (2010). They discuss three main theories of armed conflict on which most of theoretical literature are based; (a) rebellion as means to compete for economic opportunity (resources), (b) bargaining model, where there is bargaining between two parties the elite and poor, with possibility of revolt leading to violent conflict, and (c) formation of rebel groups either through incentives, coercive recruitment or leaders tapping into 'ethnic nationalism'. While, Collier and Hoeffler (2004) theorize that rebels, like any other rational decision maker, analyze the cost and benefit of joining the rebellion and the opportunity cost (the possible wage-earning hours foregone as a consequence) of joining the rebel forces.

Theoretical literature shows low income and poverty, state failure or weak institutions, social divisions and failure of economic underdevelopment as major factors that may contribute to the onset of a civil war (Elbadawi and Sambanis 2000, Fearon and Laitin 2003, Nafziger and Auvenin 2002). Stewart (2002) argues that civil war can be caused due to (a) increasing inequality among groups leading to conflict, (b) failure of administrative system which weakens state authority (c) decline in capability of the powerful groups to accrue additional economic benefits giving rise to insecurity and breakdown of the central authority. Blattman and Miguel (2010) conclude that low income and slow growth lead to outbreak of civil war. While, Venables and Kanbur (2003) point out that non-inclusive development may lead to conflict.

From a thorough literature review of empirical studies Sambanis (2002) identifies that poverty and slow growth, ethnic diversity and polarization, natural resources, and the level and change of democracy can cause civil war. Contrastingly, results from Collier and Hoeffler's (2004) paper, indicate possibility of economic gains from rebellion lead to conflict and political repression and economic inequality do not have causal relationship with conflict. Whereas, Miguel et al. (2004) argue that growth would lead to an increase in probability of civil war with results indicating towards a highly significant relationship between growth shock and occurrence of civil war.

Collier et al. (2004) examine the impact of civil war, they estimate that an average period of civil war is 7 years while post-war recovery period lasts for more than 10 years. The results show that economic situation after the war is that the economy is lagging behind by approximately 15% of what it should have been, losing around 60 billion dollars. Bircan et al (2017) argue there is increase in inequality as war goes

on and the increase does not stop with peace, inequality increases to higher levels in the post-war period. In a larger context, Collier et al (2003) have argued that destructive impact of conflict could lead to an increase in the already-growing income divide between the rich and poor countries.

Looking at the long-term impacts of war, Miguel and Roland (2011) in their study on US bombings on Vietnam, interestingly find no such long-term impact on poverty or local population 25 years on from the "American war", rather the findings indicate decline in poverty and quicker population recovery in highly bombed areas. Also, they point out that there is evidence that the consumption grew quicker in these areas because of reallocation of local resources towards these areas. But they claim the recovery would not have been possible without strong institutions.

In concern to the impact of conflict on other regions or countries, Murdoch and Sandler (2002) conclude conflict negatively affects the short run growth of the country and the neighbouring countries as well even though it is less evident in the long run. They add that spill overs from a conflict-ridden country can be severe enough to negatively impact the living standards in the neighbouring countries, especially those sharing longer adjoining borders. Results from Abadie and Gardeazabal's (2003) study on the conflict in the Basque region indicated that other regions had faced negative impact on their economy as overall foreign investment declined to all Spanish regions. But, the Basque region in comparison to the other regions witnessed relatively low growth.

2.3 Literature on Nepalese Civil War

In context of the civil war in Nepal, linking the civil war in Nepal to urban-rural divide context, Sharma (2006a) points out economic policy was biased toward the urban areas and the majority population, living in rural areas did not gain anything even though the resources were being extracted from their areas. He argues that this lead to downfall of agriculture sector pushed the agriculture dependent rural population into poverty widening the urban-rural gap. With increased corruption and lack of political stability coinciding the disadvantaged rural people were compelled to join the rebel forces (Sharma 2006a).

Many studies (Deraniyagala 2005, Murshed and Gates 2005, Sharma 2006a, Sharma 2006b) have shown incidence of inequality, poverty and underdevelopment to be the main cause of outbreak of civil war. Deraniyagala (2005) points out that civil war arose as large sections of rural population rebelled against the government as they were excluded from receiving any economic benefit from the development process. Murshed and Gates (2005) argue that land inequality, unequal access to public services, over-taxation, and economic mismanagement may have led to eruption of the civil war. Interestingly Macours (2010) points out that even though Nepal witnessed a drop around 9% drop in poverty rate from 1995 to 2003, in which 7 years were conflict ridden, on the other side of the picture the Maoist insurgency was growing in power and gaining control over more territory.

On the empirical side, Murshed and Gates (2005) indicate that in areas with low human development index, high inequality and lack of resources the intensity of conflict is greater. While, Do and Iyer (2010) conclude that conflict intensity is significantly higher in places with greater poverty and low economic development. In addition, they find that conflict intensity is high in places which geographically provide an advantage to the insurgents, hilly and mountainous regions. While, Nepal et al. (2011) show that conflict intensity is higher in villages with greater economic inequality but their results indicate that poverty does not have significant impact on conflict intensity.

Macours (2010) studies the relationship between land inequality and recruitments done by the Maoist insurgents by way of mass abductions (assumed to be successful means of recruitment). With the hypothesis that Maoists targeted districts with high inequality in landholdings, the results indicated that in districts with increased inequality there was significant increase in mass abduction and also pointed out that inequality can lead to conflict. Hatlebakk (2009) indicates that income poverty and land inequality were the main reasons for Maoists being in control of districts. While, Tiwari's (2009) findings show that conflict was caused not only economic factors but also by political and social factors. He argues that conflict was politically motivated as the largest number of deaths were that of political workers while, he indicates that mid-western region was most affected by conflict.

The theoretical literature reviewed in this chapter provides significant background on the urban rural divide and civil war. The empirical literature on urban-rural divide showed factors that affect the divide. Whereas for civil war, empirical studies examined the causes and impact of civil war and to Nepalese civil war. This study aims to contribute to both the strands of literature by attempting to combine these two areas of development economics. While the existing literature has only looked at urban rural divide and civil war separately, this study looks to fill in the gap by analyzing the impact of civil war on the urban-rural divide. The following chapter provides explanation on the data and research methodology used in this study.

Chapter 3 | Data and Research Methodology

3.1 Data Source

The data source for this study is the Nepal Living Standard Survey (NLSS) carried out by the Central Bureau of Statistics (CBS), Nepal, in line with the Living Standard Measurement Survey (LSMS) methodology developed and promoted by the World Bank. Pooled Cross-sectional data from 3 rounds of NLSS I, II, and III (1995-96, 2003-04, 2010-11 respectively) have been used for the analysis. NLSS I enumerated 3373 households from 274 Primary Sampling Units (PSUs) whereas NLSS II enumerated 3912 from 326 PSUs and NLSS III enumerated 5988 households from 499 PSUs. The regions defined in the survey were based on the development regions in Nepal Eastern, Central, Mid-Western, Western and Far-Western development regions. The regions have been further divided into districts, 75 in total. The districts are further divided into Wards/Sub wards or combination of them, and these make up the PSUs. The PSUs have also been categorized into urban or rural. The secondary sampling units in the survey are households. With the purpose of evaluating the impact of government policies and measuring the standard of living and poverty level in the country the survey collected data on various socio-economic and welfare indicators at household and individual level like demography, housing details, access to various facilities and public goods, migration, expenditure, income, health, education, employment, remittance and credit (CBS 2011a).

As for this study, we used the data on expenditure and value of asset holdings (dependent variables) at the household level and per household member level. The household demographics and household head characteristics are to be used as explanatory variables. The household expenditure includes expenses on housing and utilities, food, non-food items, durables, education, and health of the members. The household asset value is the total value of assets owned household which includes current dwelling, land, livestock value, farming assets, enterprise assets, other property and other income sources.

In terms of the time periods, we analyze the 3 NLSS as it provides an opportunity to look at how the civil war has had impact on the urban-rural gap in both affected and unaffected regions of Nepal. Also, we can see how the urban-rural divide has changed before, during and after the decade long civil war (1996-2006) as the time period of the data available in NLSS I-III suits the objective of the study.

NLSS I (1995-96) – Before the Civil War [Wave 1]

NLSS II (2003-04) – During the Civil War [Wave 2]

NLSS III (2010-11) – After the Civil War [Wave 3]

We also focus on the impact of remittances on the dependent variables, as remittances have started to play a major role in the Nepalese economy. In addition to this, the variable for measuring conflict intensity is a crucial part of this research. It is necessary for looking at how the districts with different levels of conflict looked

before, during and after the conflict. Before the detailed assessment of the data from the survey there is need to measure conflict intensity and classify the districts accordingly.

3.2 Measuring Conflict Intensity

One of the main variable in this study is the variable measuring conflict intensity and in order to measure it on district level, this paper will use conflict quantiles indicator formulated in the paper "Geography, Poverty and Conflict in Nepal" by Do and Iyer (2010). The unit of measurement used by them is deaths[3] per thousand[4] at the district level. On number of deaths during the conflict they use data provided by the Informal Sector Service Centre (INSEC), a Nepalese Non-Governmental organization. The 4 quantiles calculated in the study will be used as an indicator of conflict intensity in our study from low to very high as shown below:

Quantile 1: 0 - 0.26 deaths per 1000 (Low) [Conflict intensity level 1]

Quantile 2: 0.29 - 0.58 deaths per 1000 (Medium) [Conflict intensity level 2]

Quantile 3: 0.58 – 1.08 deaths per 1000 (High) [Conflict intensity level 3]

Quantile 4: 1.11 – 5.21 deaths per 1000 (Very High) [Conflict intensity level 4]

Figure 1: Map of Conflict Intensity (District-wise)
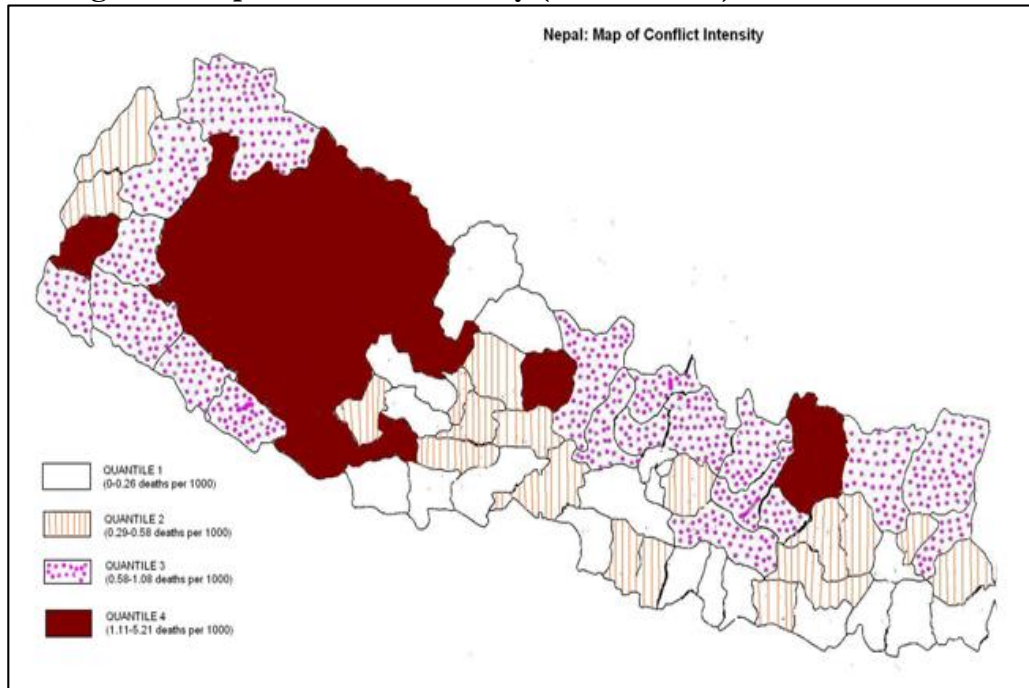
Source: Do and Iyer (2010)

The districts have been identified with the help of the map of conflict intensity provided in the paper and the conflict intensity will be matched according to the

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[3] killed by both Maoists and the State

[4] normalized by 1991 population from the national census (pre-conflict data)

pattern representing the various quantiles given in Figure 1. Quantile 1-4 will be used to denote the conflict intensity level in districts in the same numerical order as its corresponding quantile, Quantile 1 being conflict intensity level 1 or low level of conflict and so on. Number of districts in each level of conflict are as follows: (a) Low level – 20 districts, (b) Medium level – 18 districts, (c) High level – 19 districts, and (d) Very high level – 18 districts.

3.3 Summary of Data

In Table 1 we can see the general characteristics of households in the different waves of survey and combining all the surveys. Household size in rural tends to be higher in all the waves and overall by over half a unit. Similar patterns can be seen in percentage of household with male member as head is almost equal in all the waves. Similarly, the average age of head of household is just about 45, and the percentage of household head who are married is around 85. As for the percentage of household head who are uneducated, we can see the percentage of uneducated rural household head almost double the percentage than that of urban households in all the waves.

Table 1: Mean statistics of household characteristics

Variables	Overall		Wave 1		Wave 2		Wave 3	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
No. of Observations	9,305	3,968	2,657	716	2,748	1,164	3,900	2,088
Household Size	5.52	4.78	6.09	5.54	5.71	5.01	5.00	4.40
Male head of Household	0.79	0.78	0.87	0.85	0.80	0.82	0.73	0.73
Age of Head of Household	45.85	44.73	44.73	44.58	45.69	45.01	46.73	44.62
Head of House-hold married	0.86	0.84	0.86	0.83	0.85	0.86	0.88	0.84
Head of House-hold not educated	0.62	0.30	0.70	0.37	0.64	0.32	0.54	0.27
Household receives Remittances	0.41	0.34	0.23	0.19	0.33	0.26	0.58	0.45
Remittance received [in NRs]	26,185	37,927	3,259	9,968	9,730	17,070	53,399	59,141
Remittance re-ceived * [in NRs]	64,476	110,171	13,897	52,094	29,383	66,902	92,724	132,497
Note: * represents only households receiving remittances								

Source: Based on stata output using NLSS data

As, far as remittance received is concerned we can see that the percentage of rural households receiving remittances have increased from 23 percent in wave 1 to 58 percent in wave 3, we can see quite an increase in the percentage of households receiving remittances in urban areas, increasing from 19 percent in wave 1 to 45 percent. We can see there is convergence in the amount of remittance received by households in rural and urban which shows that there is possibility of the urban-

rural gap being reduced at least in terms of household expenditure. The amount of remittances received by rural households was around 1/3rd of that received by urban households, this is almost equal in the wave 3. Even when we look at the amount of remittances received excluding non-recipients we see a similar pattern of convergence between the urban and rural areas.

Table 2 presents the urban rural ratio of the expenditure by the survey waves and conflict intensity level. Further, the table is followed by figures to supplement analysis. The summary statistics for expenditure is presented in the Appendix-A Table 15.

Table 2: Urban to rural ratio for expenditure

Region	Household			Per HH member		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
All	2.05	1.79	1.59	2.31	2.00	1.74
Conflict intensity 1	1.89	2.01	1.47	2.09	2.21	1.66
Conflict intensity 2	2.09	1.44	1.58	2.32	1.76	1.68
Conflict intensity 3	1.44	1.23	1.21	1.47	1.31	1.24
Conflict intensity 4	3.75	1.29	1.21	4.32	1.26	1.32

Source: Based on Author's calculation using NLSS data

Figure 2: Trend of household expenditure
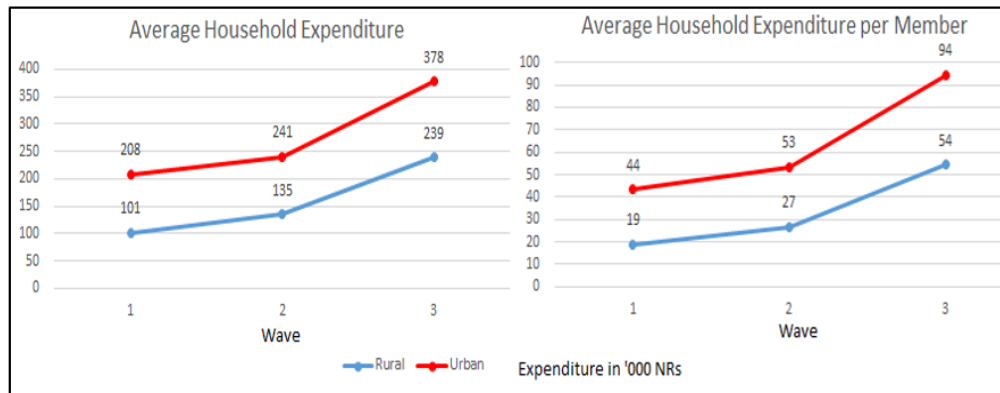
Source: Based on Author's calculation using NLSS data

From Table 2 we can see that the urban households spend more than two times that of rural households in wave 1. But in the remaining waves urban expenditure is less than double of rural expenditure. Both rural and urban expenditure show similar trends of growth through the waves as shown in figure 2. If we look at expenditure per household member level it shows a similar picture. We can see the urban rural ratio is declining at both levels, figure 3 shows the decline. By wave 3 the urban expenditure is just over 1.5 times the rural expenditure from 2 times in wave 1.

Figure 3: Urban rural ratio of household expenditure across waves
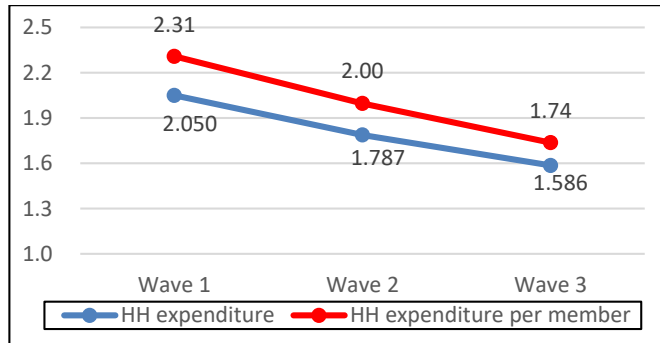
Source: Based on Author's calculation using NLSS data

Figure 4: Comparison of kernel density of expenditure distribution
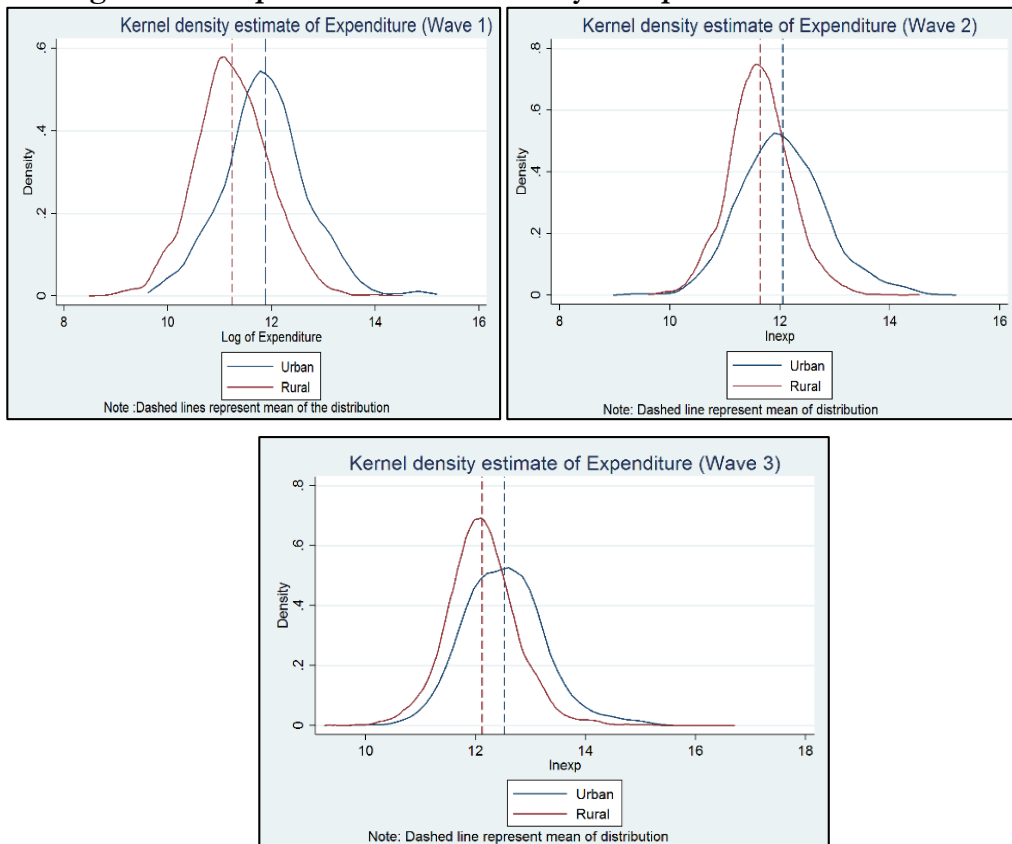
Source: Based on Stata Output using NLSS data

Figure 4 shows comparisons of kernel density estimates of expenditure (log form) between urban and rural households in the three waves. Across all waves we can see the urban distribution is more towards the right of the rural distribution indicating higher average household expenditure for urban households. This can be seen when we look at the mean values represented by corresponding dashed lines.

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We cannot see a clear pattern looking across the waves. In wave 1 we can see equality within the urban and rural distributions are similar. But as we move across the waves we can see that the urban distributions are becoming flatter showing growing inequality within.

Figure 5: Household expenditure across conflict intensity levels
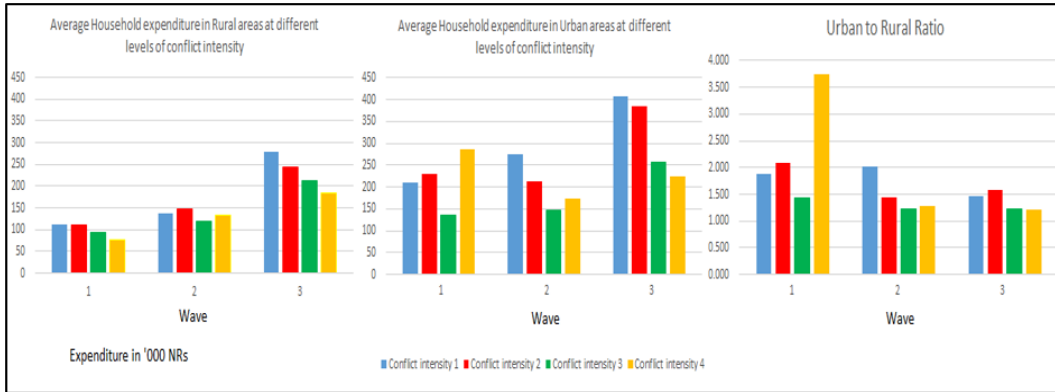
Source: Based on Author's calculation using NLSS data

Figure 6: Household expenditure per member across conflict intensity levels
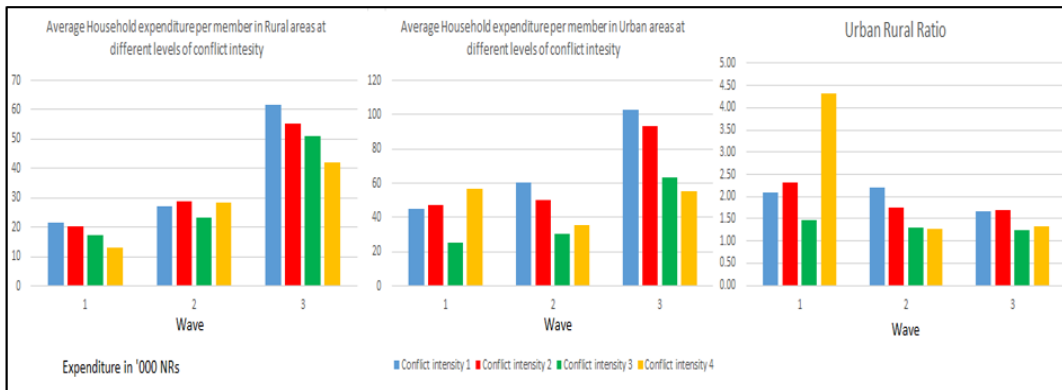
Source: Based on Author's calculation using NLSS data

Figure 5 shows there is rising trend of expenditure in both urban and rural areas across the waves at all levels of conflict, but in urban areas we can see a significant decline in household expenditure in districts with very high conflict intensity as we move from wave 1 to wave 2 but the rising trend continues after that. From table 3, we can see the from the urban rural ratio is extremely high at 3.75 in wave 1 in districts with very high conflict intensity and it drops down to 1.3 in wave 2. For districts in other levels of conflict intensity we can see a steady decline in the ratio. Figure 6, expenditure at per household member level shows very similar trend.

Table 3 presents urban-rural ratio of asset value. Figure 7-11 supplement the table. The summary statistics for asset value are presented in Appendix A Table 16.

Table 3: Urban to rural ratio for asset value

Region	Asset Value			Per HH member		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
All	5.26	3.77	3.64	5.65	4.14	3.79
Conflict intensity 1	4.07	3.78	3.14	4.40	4.06	3.20
Conflict intensity 2	6.12	3.54	3.67	6.43	4.19	4.24
Conflict intensity 3	2.16	2.06	2.31	2.17	2.20	2.19
Conflict intensity 4	4.56	2.84	2.32	4.34	2.84	2.40

Source: Based on Author's calculation from NLSS

Figure 7: Trend of household asset value
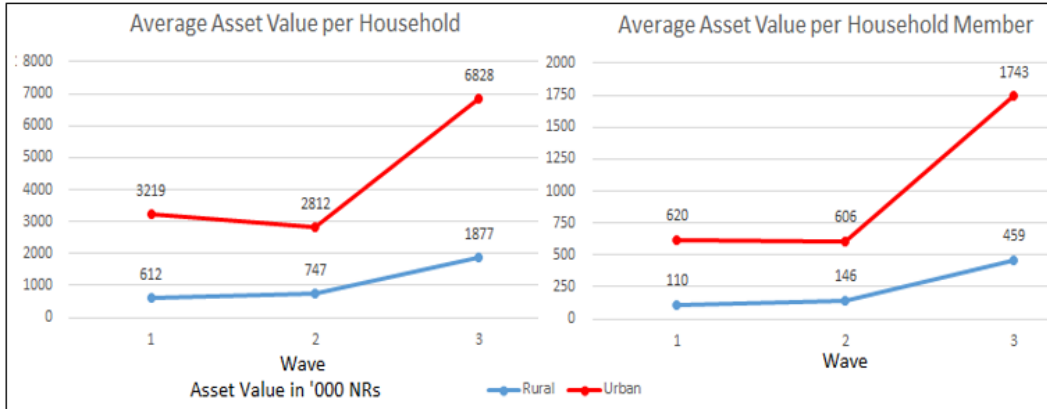
Source: Based on Author's calculation from NLSS

Initially the urban rural divide in asset value is extremely high, urban being more than 5 times that of rural. But, we can see a decline in the gap across the waves. Among urban households as we move from wave 1 to wave 2 there is a decline in asset value, but from wave 2 to wave 3 the increase is almost 2.5 times at household level and close to 3 folds at per household member level. Whereas, we can see a rising trend for rural households where the jump from wave 2 to wave 3 is almost 3 times. As for the urban rural ratio, it shows a substantial decline from wave 1 to wave 2 declining by almost 1.5 unit but from wave 2 to 3 there is very low decline. This is depicted in figure 7. As we compare the urban rural asset value we can see there is decline in the urban rural ration from 5.26 to 3.77 from wave 1 to wave 2 but after that there is only a small decline. Similar trend can be seen for asset per member. This can be seen in figure 8 both the line, following the same pattern of decline.

Figure 8: Urban rural ratio of household asset value across waves
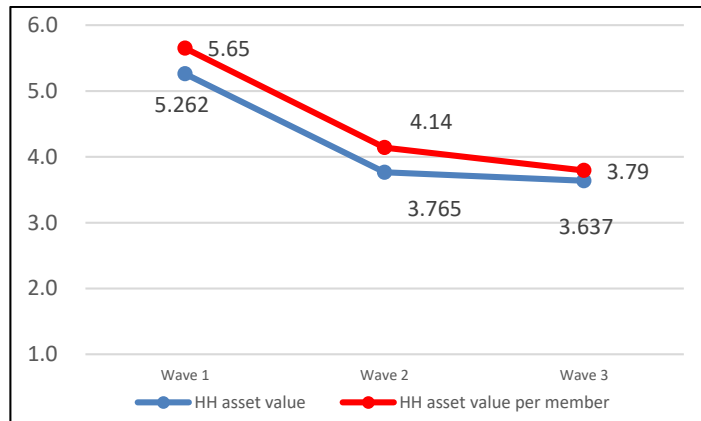
Source: Based on Author's calculation from NLSS

Figure 9: Comparison of kernel density of asset value distribution
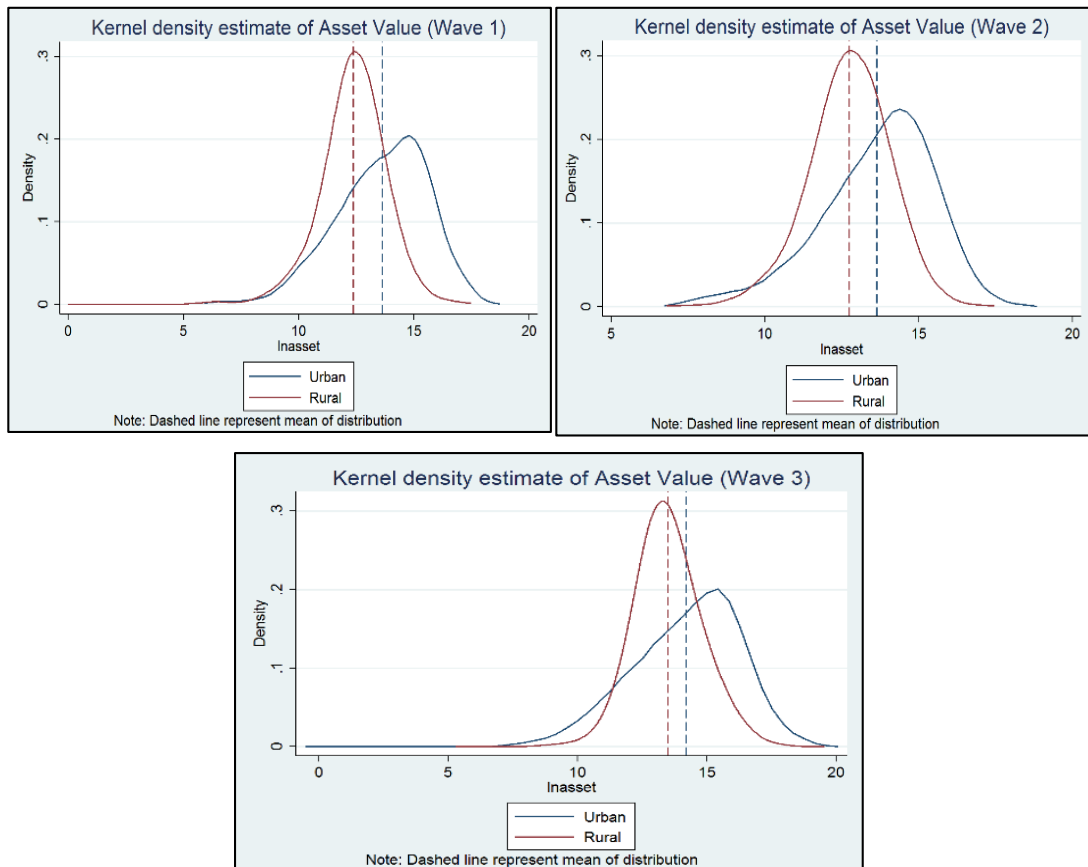
Source: Based on Stata Output from NLSS data

Figure 9 shows comparisons of kernel density estimates of value of assets (log form) between urban and rural households in the three waves. Similar to expenditure, across all waves we can see the urban distribution is more towards the right of

the rural distribution meaning average asset value held by urban households is greater than that of rural counterparts. We can see this when we look at the mean values represented by corresponding dashed lines. Comparing the two distributions the rural distribution the mean is very close to the maximum point of distribution showing lower inequality within the distribution. Whereas, the urban distribution the mean is towards the left of the maximum point showing greater inequality within the distribution. In wave 2 we can see equality within the urban distribution is lower than the other two waves. But wave 1 and 3 waves we can see that the urban distributions are flatter distribution showing higher inequality within.

Figure 10: Household asset value across conflict intensity levels
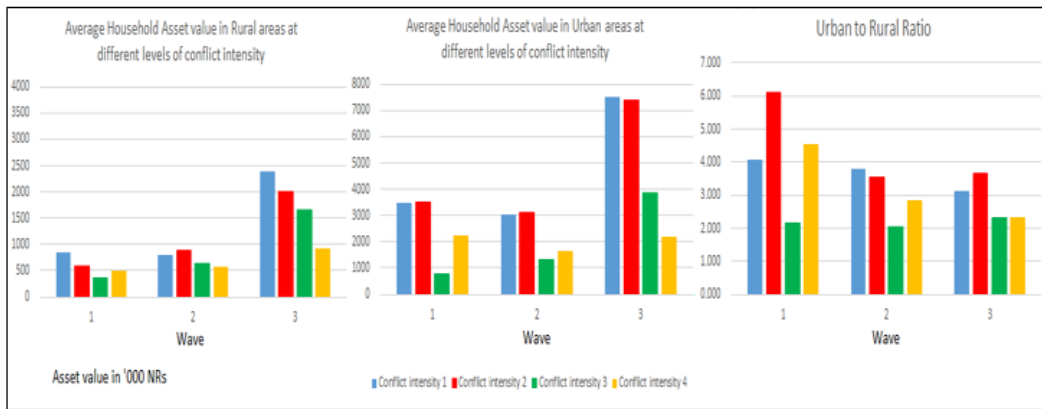
Source: Based on Author's calculation from NLSS

Figure 11: Household asset value per member across conflict intensity levels
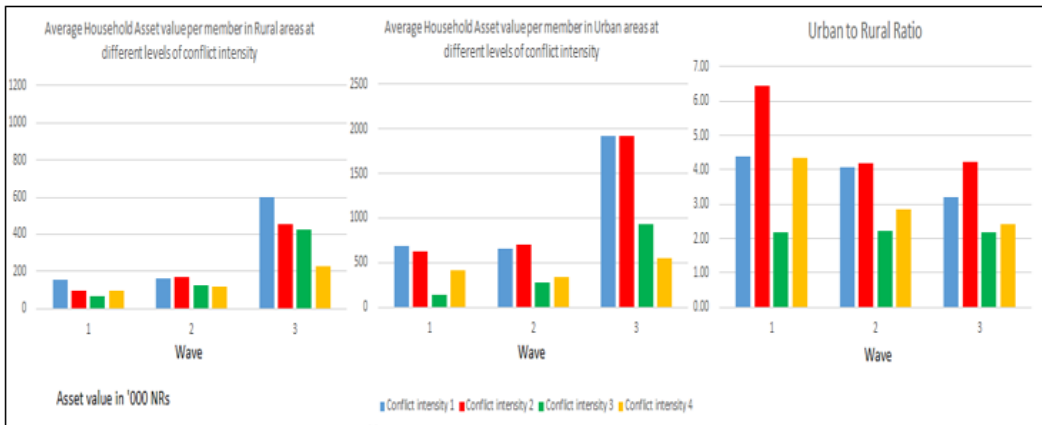
Source: Based on Author's calculation from NLSS

From Figure 10 we can see that generally asset value increases across the waves for both urban and rural households. But for urban households in very high conflict intensity districts there is a decline in asset value as we move from wave 1 to wave

2. As for the urban rural asset ratio we can see declining trend in all levels of conflict but ratio is extremely high in districts with medium level of conflict with urban households holding assets worth 6 times that of rural households. Even at low conflict and very high conflict districts the gap is very high with urban households have assets worth 4 times that of rural households. We can see a steady decline in the urban rural ratio across the waves in low conflict and very high conflict districts but in medium and high conflict districts there is decline in the urban rural ratio from wave 1 to wave 2 but as we move to wave 3 the ratio rises. From figure 11 we can see the trends at the per household member level look similar. So, significant urban rural divide still persists in terms of asset holdings.

3.4 Variables included in the model and their descriptions

The dependent or response variables used for empirical analysis in this study are household expenditure and value of assets held by household. Both these variables are also analyzed at per household member level. We will convert the dependent variables into logarithm form for the purpose of convenient interpretation.

Household expenditure has been chosen as the dependent variable to examine the socio-economic welfare of the household as it is preferred over household income especially in developing countries (Deaton 1997). Deaton (1997) argues expenditure is better measure than income as lack of formal employment in developing countries means changing jobs and differing wages. In addition to these reasons, some households in the data sets running enterprises even suffered losses so, negative income would alter the mean income so the decision to use expenditure as a dependent variable. Asset holdings of Household is another dependent variable. Various studies (Murshed and Gates 2005, Macours 2010) have claimed land inequality to be one of the causes of conflict in Nepal. But, not all households own land so to include but own various other assets we decided to use assets holdings to examine the socio-economic welfare of the households.

These socio economic indicators will help us to examine the urban-rural gap along with the conflict intensity variable. The explanatory variables used for this study are the demographic variables (region, urban or rural, household size, dependency ratio, and male to female ratio), characteristics of head of household (age, sex, marital status, and education level), remittance variable (whether receiving or not, amount if receiving) and conflict intensity variable.

Region variable defines the region in which the household belongs to among the 5 development regions (Eastern, Central, Western, Mid-Western, and Far-Western - regional dummies taking 1 if household in located in the region). The Central region being well off as compared to the other regions is expected to have a positive association with the dependent variables because the capital Kathmandu is situated in this region. But, for other regions the signs of the coefficient can be negative or positive. The Mid-Western and Far-Western regions are expected to have negative coefficients as these regions lag behind in terms of development and were im-

mensely affected by conflict. The urban variable defines the area which the household belongs to taking value 1 if the household is situated in the urban area and 0 if in rural area. It is an important variable in terms of analyzing the urban-rural gap in the dependent variables. It is expected that urban households are well off in terms of socio-economic indicators, in this case expenditure and asset holdings. Household size (no. of members in household), dependency ratio (no. of members in productive age group to no. of members in non-productive age group) and male to female ratio are expected to be positively associated with the dependent variables as we can expect that households with larger no. of members, more male members (male dominated workforce) and dependents would have higher expenditure and assets to provide for the household members.

Moving on to the characteristics of the household head, age of the head is likely to have positive relation with the dependent variables as with increase in age but may decline after working age. Male variable, defines sex of the head of household, takes value 1 if the head is male and 0 if female. The value of dependent variables are likely to be smaller if the head is female as most of the societies are male dominated and there is prevalence of bias against women in the labour market. Also, women on average tend to have lower level of education than men as they do not get equal opportunity for education. Marital status (dummy variable for single, married, divorced or separated and widowed) of head also has strong implications on determining the value of dependent variables where households with married head is expected to have the higher monetary value of all the dependent variables as compared to the others. But, for the purpose of analysis the reference category will be single.

Education variable has been divided into 4 categories (dummy variables taking 1 if household head belongs to the given category) no education, primary education (grade 1-5), secondary education (6-10) and tertiary (11 and above i.e. higher secondary and above) and the dependent variables are expected to take a higher value with increase in the education level of the head of household as with education is positively associated to income on average. The reference category here will be 'no education'. For remittance, remittance received variable takes value 1 if household receives remittance and 0 if it does not. In addition, another variable capture amount of remittance received by the household which is expected to have positive association with the dependent variables.

Below in Table 4 the variables used in the model have been defined and the summary statistics have been provided. The summary statistics have been provided for the overall and wave specific observations categorized into rural and urban to see differences between urban and rural households. The p-value of the differences in mean values between the urban and rural households show that for most of variables there is significant difference between these households. In terms of few characteristics of household head the difference is not significant. But as we look at the statistics combing all the waves and across each wave the urban and rural households are significantly different (statistically significant at 1% level) barring a few variables.

Table 4: Descriptive statistics

Variables	Variables Description	Overall			Wave 1			Wave 2			Wave 3		
		Rural	Urban	P-value	Rural	Urban	P-value	Rural	Urban	P-value	Rural	Urban	P-value
Total Observations	No. of households	9,305	3,968	-	2,657	716	-	2,748	1,164	-	3,900	2,088	-
Expenditure*	Household expenditure	11.73	12.27	0.000	11.25	11.88	0.000	11.64	12.05	0.000	12.12	12.52	0.000
Assets*	Household asset value	12.95	13.92	0.000	12.37	13.61	0.000	12.74	13.64	0.000	13.49	14.18	0.000
Conflict Intensity – 1	=1 if household from district with conflict level 1	0.36	0.64	0.000	0.35	0.70	0.000	0.38	0.60	0.000	0.36	0.65	0.000
Conflict Intensity – 2	=1 if household from district with conflict level 2	0.24	0.21	0.000	0.245	0.18	0.001	0.23	0.25	0.282	0.23	0.19	0.000
Conflict Intensity – 3	=1 if household from district with conflict level 3	0.24	0.11	0.000	0.245	0.10	0.000	0.24	0.11	0.000	0.23	0.12	0.000
Conflict Intensity – 4	=1 if household from district with conflict level 4	0.16	0.04	0.000	0.16	0.02	0.000	0.15	0.04	0.000	0.18	0.04	0.000
Household Demography:													
Household Size	No. of members	5.52	4.78	0.000	6.09	5.54	0.000	5.71	5.01	0.000	5.00	4.40	0.000
Share of male	Proportion of male members	0.48	0.50	0.000	0.50	0.52	0.029	0.49	0.52	0.000	0.45	0.48	0.000
Share of dependents	Proportion of Dependents (age 0-14 and 65+)	0.42	0.32	0.000	0.43	0.35	0.000	0.43	0.33	0.000	0.42	0.31	0.000
Household head Characteristics:													
Male	=1 if male, =0 if female	0.79	0.78	0.130	0.87	0.85	0.361	0.80	0.82	0.359	0.73	0.73	0.827
Age	Age of household head	45.85	44.73	0.000	44.73	44.58	0.797	45.69	45.01	0.174	46.73	44.62	0.000
Married	=1 if married	0.86	0.84	0.000	0.86	0.83	0.036	0.85	0.86	0.788	0.88	0.84	0.000
Divorced or Separated	=1 if divorced or separated	0.01	0.01	0.581	0.01	0.01	0.619	0.01	0.01	0.019	0.01	0.02	0.291
Widowed	=1 if widow/widower	0.11	0.09	0.025	0.12	0.11	0.879	0.12	0.09	0.016	0.09	0.09	0.542
Single	=1 if Single	0.01	0.05	0.000	0.01	0.05	0.000	0.01	0.04	0.000	0.02	0.06	0.000
No education	=1 if no education or less than primary	0.62	0.30	0.000	0.70	0.37	0.000	0.64	0.32	0.000	0.54	0.27	0.000
Primary education	=1 if educated at primary level (1-5 grade)	0.18	0.16	0.007	0.14	0.12	0.158	0.17	0.16	0.574	0.21	0.17	0.000
Secondary education	=1 if educated at secondary level (6-10 grade)	0.18	0.32	0.000	0.13	0.27	0.000	0.17	0.33	0.000	0.21	0.34	0.000
Tertiary education	=1 if educated at higher secondary or above	0.03	0.22	0.000	0.02	0.24	0.000	0.02	0.19	0.000	0.04	0.22	0.000
Remittance received	=1 if household receives remittance	0.41	0.34	0.000	0.23	0.19	0.014	0.33	0.26	0.000	0.58	0.45	0.000
Amount of Remittance *	Remittances received by household	3.83	3.49	0.000	1.97	1.72	0.099	3.08	2.54	0.001	5.62	4.63	0.000
Region:													
Eastern Region	=1 if household in Eastern region	0.24	0.15	0.000	0.25	0.08	0.000	0.25	0.19	0.000	0.24	0.16	0.000
Central Region	=1 if household in Central region	0.30	0.58	0.000	0.30	0.72	0.000	0.33	0.52	0.000	0.28	0.57	0.000
Western Region	=1 if household in Western region	0.21	0.16	0.000	0.20	0.12	0.000	0.21	0.19	0.159	0.21	0.16	0.000
Mid-Western Region	=1 if household in Mid-Western region	0.15	0.05	0.000	0.13	0.03	0.000	0.14	0.06	0.000	0.16	0.06	0.000
Far-Western Region	=1 if household in Far-Western region	0.10	0.05	0.000	0.12	0.04	0.000	0.08	0.05	0.003	0.11	0.05	0.000

Note: P-value of the difference between urban and rural households in the concerned sample. * represents variables are in logarithm form.

Source: Based on Stata output from NLSS data

3.5 Estimation methods and Specification of Econometric Model

As we have discussed above the dependent or outcome variables in this paper are expenditure and total asset value at both household and household member level. These variables were chosen as measures to analyze socio-economic welfare differences in the urban and rural areas. As for the explanatory variables regional effects (development regions), various household demographics and household head characteristics, conflict intensity variable, and remittances received (amount received by household) have been used.

Co-variates are listed below:

- Conflict intensity (district level)
- Interaction between urban and conflict intensity levels
- Household Demography (household size, share of males, share of dependents)
- Characteristics of head of household (sex, marital status and education level)
- Remittance received (whether household receives remittance or not)
- Remittances received by households
- Regional effects (development region – Eastern, Central, Western, Midwestern or Far-western)

The methodology used in order to analyze the urban-rural divide in the various time periods, and to attribute the underlying gap or changes in our outcome variables are Ordinary Least Square (OLS) estimation, Instrumental Variable – Two Stage Least Squares (IV-2SLS) and Oaxaca–Blinder (OB) Decomposition.

With the OLS regression we estimate the effect of conflict on logarithm of expenses and asset value in urban and rural areas. We are using logarithmic values of dependent variables as it is skewed distribution and also contains extreme values, so by using log values we get a distribution closer to a normal distribution and reduces variability in data. With the interaction variable between urban and conflict intensity level we look to examine the impact of certain conflict level on the urban and rural population. Since we drop the urban dummy variable the interaction term between the urban dummy and conflict intensity variable directly shows the urban rural gap in the dependent variable across households in the districts with corresponding conflict intensity. It is different from the traditional way in which we would add urban dummy to the equation and drop one of the interaction between urban and one conflict intensity (to avoid multicollinearity) and then we would add the coefficients of urban dummy and interaction term to find the urban rural gap. But by dropping urban dummy we can directly interpret the coefficient of the interaction terms as the urban rural gap in districts in specific conflict intensity level. We control for household demography, characteristics of household and regional effects. We also control for income from remittances in logarithm form.

$$LnY_{it} = \alpha + \theta_2 Conflict2 + \theta_3 Conflict3 + \theta_4 Conflict4$$
$$+ \beta_1 Urban.Conflictintesity1$$
$$+ \beta_2 Urban.Conflictintensity2$$
$$+ \beta_3 Urban.Conflictintensity3$$
$$+ \beta_4 Urban.Conflictintensity4 + \delta hhcharacteristics$$
$$+ \rho Remit + \mu lnRemit + \varphi_1 Eastern + \varphi_2 Western$$
$$+ \varphi_3 Midwestern + \varphi_4 Farwestern + \varepsilon \dots \dots (1)$$

In (1) LnY_{it} denotes logarithm form of the dependent variables (household expenditure or asset value) and 'i' denotes household while 't' denotes the wave of survey. θ coefficients represents of dummy variables for conflict intensity level (1-4), conflict1 is the reference category so it has been dropped to account for multi-collinearity. β coefficients represent the effect of interaction between urban and conflict intensity level. The coefficients shows the difference in outcome variables between urban and rural households in various levels of conflict intensity. δ is the coefficient for vector of household demography and characteristics of household head that have been controlled. ρ is the coefficient for the dummy variable for remittance received. Amount of remittance received has been transformed into log variables the μ coefficient of $lnRemit$ which represents a percentage change in the outcome variable as a result of change of one percent change in remittance received. φ coefficients are controls for regional effect.

In addition to the OLS approach we use the IV - 2SLS approach to address the potential endogeneity of remittance variables to the dependent variables, expenditure and assets. Remittances and household expenditure have endogenous relationship because there is high probability that some of the characteristics of the households (not included in our model) may affect both remittance inflow and how much households spend (Démurger and Wang 2016). Hence, there is possibility remittances is highly correlated to the error term of OLS regression leading to biased results. Similarly the same may be possible for remittances and household asset value. So IV approach is used to estimate the OLS regression to correct for the potential endogeneity. As an instrument for remittance received dummy variable we use the share of households receiving remittance belonging to the same 'group' (where group is defined as households belonging to same district and same area: either urban or rural). Whereas, for the logarithm of amount of remittances received we instrument the log of average amount of remittances received by households from the same group.

Equation for the first stage regressions:

$$Remit_{it} = \alpha + \theta_2 Conflict2 + \theta_3 Conflict3 + \theta_4 Conflict4$$
$$+ \beta_1 Urban.Conflictintesity1$$
$$+ \beta_2 Urban.Conflictintensity2$$
$$+ \beta_3 Urban.Conflictintensity3$$
$$+ \beta_4 Urban.Conflictintensity4 + \delta hhcharacteristics$$
$$+ \vartheta share + \pi lnAvg.remit + \varphi_1 Eastern + \varphi_2 Western$$
$$+ \varphi_3 Midwestern + \varphi_4 Farwestern + \varepsilon \dots \dots \dots (2)$$

$$LnRemit_{it} = \alpha + \theta_2 Conflict2 + \theta_3 Conflict3 + \theta_4 Conflict4$$
$$+ \beta_1 Urban.Conflictintesity1$$
$$+ \beta_2 Urban.Conflictintensity2$$
$$+ \beta_3 Urban.Conflictintensity3$$
$$+ \beta_4 Urban.Conflictintensity4 + \delta hhcharacteristics$$
$$+ \vartheta share + \pi lnAvg.remit + \varphi_1 Eastern + \varphi_2 Western$$
$$+ \varphi_3 Midwestern + \varphi_4 Farwestern + \varepsilon \ldots\ldots\ldots (3)$$

The first stage has two equations because of the two remittance variables being instrumented. Same instruments are used for both the dependent variables. We test the relationship between the instruments and the concerned endogenous variables. In equation (2), remittance dummy variable ($Remit_{it}$) is tested against its instrument i.e. the share of households in the same group receiving remittances ($share$). Similarly, in equation (3), Log of amount of remittances received ($LnRemit_{it}$) is tested against log of average remittances received by households belonging to the same group ($lnAvg.remit$). ϑ and π are the coefficients for the instruments of remittance dummy and log of amount of remittance received respectively. The second stage equation estimates the same relationship estimated by the OLS equation shown by equation (1) after instrumenting the endogenous variables. For IV-2SLS approach we will be using clustered standard errors where group will be used as the cluster.

To examine the factors that lead to changes in household expenditures and asset holdings between different waves, i.e. over time as conflict starts and ends, the OB decomposition method is used. We use the methodology to study the difference in our dependent variables between two waves of time and particularly, to examine how much of the observed difference in the dependent variable is contributed by differences in the covariates (Jann 2008). Specifically, this paper analyzes whether or not varying conflict intensity has impacted the urban-rural gap and how the gap contributes to the overall difference in the dependent variables between the different waves of the survey. The statistical decomposition of expenditure per household can be derived as follows:

$$Exp_{Wave2} - Exp_{Wave1} = \overline{X'}_{Wave2}\hat{\beta}_{Wave2} - \overline{X'}_{Wave1}\hat{\beta}_{Wave1} \qquad (4)$$

This difference or gap in the above equation is decomposed into an explained and unexplained part as can be seen below in equation (5):

$$Exp_{Wave2} - Exp_{Wave1} = \underbrace{(\overline{X'}_{Wave2} - \overline{X'}_{Wave1})\hat{\beta}_{pooled}}_{\text{Explained part}}$$

$$+$$

$$\underbrace{\overline{X'}_{Wave2}(\hat{\beta}_{pooled} - \hat{\beta}_{Wave2}) + \overline{X'}_{Wave1}(\hat{\beta}_{pooled} - \hat{\beta}_{Wave1})}_{\text{Unexplained part}} \quad (5)$$

The difference in expenditure between wave 2 and wave 1 (during and before civil war) helps to analyze the impact of civil war on the urban rural gap. The explained part provides the difference in the urban rural gap in wave 2 and 1 contributed by differences in observed characteristics. Whereas, the unexplained part is due to differences in various unobserved characteristics. We will repeat the same process for differences for wave 3 and wave 2 as well as wave 3 and wave 1. Comparison between wave 3 and wave 2 will show us the impact of end of the civil war whereas, the comparison between wave 3 and wave 1 shows the overall impact of civil war. Similarly, the OB decomposition will be done for asset value and for the dependent variables at per household member level. For the purpose of our analysis only the coefficients from the 'explained part' of the equation, derived from the OB decomposition of the dependent variables, will be examined.

In addition, we run an instrument variable approach for the OB Decomposition to see if the results present a different picture to that we have derived from the OB decomposition results with and without pooled model, this will be elaborated in the results section.

Chapter 4 | Results and Discussion

4.1 Results for OLS estimation

We estimate the OLS regression for both the dependent variables by the different waves of the survey and at household and household member level. Table 5 presents the estimates explaining the household expenditure in waves 1 to 3.

Table 5: Regression results for per household expenditure in all waves

Log of Expenditure	Per household		
	(1)	(2)	(3)
VARIABLES	wave 1	wave 2	wave 3
Conflict 2	0.0562	0.0518	-0.00710
	(0.100)	(0.0698)	(0.0488)
Conflict 3	-0.0814	-0.0489	-0.108*
	(0.142)	(0.0696)	(0.0548)
Conflict 4	-0.124	0.138*	-0.130**
	(0.106)	(0.0795)	(0.0596)
Urban * Conflict 1	0.324**	0.327***	0.189***
	(0.147)	(0.112)	(0.0633)
Urban * Conflict 2	0.578***	0.198	0.231**
	(0.105)	(0.120)	(0.0967)
Urban * Conflict 3	0.113	0.0597	0.0929
	(0.273)	(0.0948)	(0.0565)
Urban *Conflict 4	0.972***	0.101	0.141*
	(0.0628)	(0.0779)	(0.0736)
Household size	0.0825***	0.0923***	0.116***
	(0.00480)	(0.00596)	(0.00595)
Share of male	-0.0249	-0.0334	0.0194
	(0.0746)	(0.0540)	(0.0461)
Share of dependents	-0.306***	-0.278***	-0.428***
	(0.0637)	(0.0502)	(0.0305)
Male (head)	0.0728	-0.0384	-0.0694***
	(0.0444)	(0.0500)	(0.0230)
Age of head	0.00497***	0.00535***	0.00365***
	(0.00124)	(0.00130)	(0.000679)
Married	0.111	0.199***	0.353***
	(0.124)	(0.0741)	(0.0514)
Divorced	0.0112	-0.0704	0.147*
	(0.157)	(0.108)	(0.0782)
Widowed	-0.0328	0.105	0.262***
	(0.125)	(0.0797)	(0.0567)
Primary education	0.148***	0.167***	0.114***
	(0.0409)	(0.0303)	(0.0224)
Secondary education	0.250***	0.331***	0.388***
	(0.0455)	(0.0365)	(0.0258)
Tertiary education	0.665***	0.802***	0.711***
	(0.0578)	(0.0615)	(0.0300)
Remit received	-0.708***	-0.998***	-0.581***
	(0.205)	(0.126)	(0.0741)
Ln remit	0.0796***	0.111***	0.0674***
	(0.0249)	(0.0124)	(0.00679)
Eastern Region	-0.166	-0.0331	-0.149***
	(0.119)	(0.0697)	(0.0472)
Western Region	-0.178*	0.0568	-0.201***
	(0.0958)	(0.0689)	(0.0521)
Mid-western Region	-0.297**	-0.111	-0.169**
	(0.121)	(0.0727)	(0.0755)
Far-western Region	-0.257*	-0.0533	-0.156***
	(0.132)	(0.0936)	(0.0507)
Constant	10.63***	10.73***	11.25***
	(0.169)	(0.125)	(0.0749)
Observations	3,345	3,912	5,988
R-squared	0.311	0.369	0.361

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

In the table 5 the coefficients of conflict intensity level show that as compared to households in conflict 1, the household expenditure in conflict 2 is 5.6% more while in conflict 3 and 4 it is 8.1% and 12.4% lower respectively. We can see lower level of expenditure in areas which later were affected immensely by conflict. In wave 2, in conflict 4 the expenditure is 14% higher than conflict 1, this may be because of high intensity of conflict, as goods became expensive due to difficulty of transportation and security threats.

The main focus of the OLS regression is on coefficients of interaction term between urban and conflict intensity level. Since we do not include the urban variable in the model the interaction term shows the impact of being an urban household, as compared to rural household, in various levels of conflict. The interpretation of coefficient shows how well off the urban households are than rural households in terms of expenditure in the different levels of conflict.

From the coefficients for the interaction terms we can see initially, in wave 1 the urban households in Confilct1 (low) spend 32.4 percent more on household expenditure than rural households. In districts with Conflict2 (medium) it is almost 60%. Alarmingly in districts in Conflict4 (very high) the difference is 99%, pointing out that urban households spend double the amount on household expenditure than their rural counterparts. But in wave 2 (during conflict) there is drastic drop to 10 percent even though it is not statistically significant. This shows the urban rural gap on expenditure decreased by great magnitude during conflict but after conflict in wave 3 we can see a rise to 14.1 percent but looking at the decline from wave 1 to wave 3 we can say in districts with very high conflict the gap has been significantly narrowed. This result is contrary to our hypothesis as we expected conflict to further increase the divide. As for households in low and medium level of conflict there is a decreasing trend when we look at the overall picture from wave 1 to wave 3.

Other than these variables we can see that size of household, share of dependents in household and the education level of head of household has significant effect on household expenditure both in magnitude and statistical significance and the signs are as expected. While the negative signs of region coefficients show that central region is the most well off which is expected as well. In the regression, we also added a dummy variable for households receiving remittances, this captures the difference in expenditure between households who receive and do not receive remittance. Whereas the log of remittance received variable shows the impact of amount of remittance received on household expenditure of households which received remittances.

The Lnremit (log of remittance) has coefficients that are statistically significant in all waves. No specific trend can be seen but apart from that the remittance received was highest during conflict (wave 2) which shows increased importance during conflict. At wave 2 a 10% increase in remittance would lead to a 1% increase in household expenditure. The results from estimation of the same model but per household member has been presented in Appendix B Table 17. The coefficients are very similar in magnitude and statistical significance as of the estimation at per household level.

Table 6 presents the results from household asset value as the dependent variable to same set of covariates. Estimates from the regression of total asset value for waves 1 to 3 are provided for household in columns 1-3 respectively.

Table 6: Regression results for asset value per household in all waves

Log of Asset value	Per household		
	(1)	(2)	(3)
VARIABLES	wave 1	wave 2	wave 3
Conflict 2	-0.00402	-0.00275	-0.0413
	(0.173)	(0.138)	(0.123)
Conflict 3	-0.0478	0.189	-0.0534
	(0.190)	(0.127)	(0.108)
Conflict 4	0.236	-0.00437	-0.111
	(0.205)	(0.135)	(0.134)
Urban * Conflict 1	0.648**	0.397***	0.0680
	(0.295)	(0.133)	(0.162)
Urban * Conflict 2	1.119***	0.619***	0.596***
	(0.316)	(0.159)	(0.140)
Urban * Conflict 3	-0.127	0.0844	0.390***
	(0.222)	(0.162)	(0.133)
Urban * Conflict 4	0.706***	0.315	0.595***
	(0.124)	(0.204)	(0.169)
Household size	0.134***	0.128***	0.108***
	(0.0112)	(0.0121)	(0.0134)
Share of male	-0.274*	-0.222	-0.155
	(0.162)	(0.137)	(0.0967)
Share of dependents	-0.545***	-0.746***	-0.648***
	(0.117)	(0.0916)	(0.0614)
Male (head)	-0.200*	-0.524***	-0.307***
	(0.104)	(0.115)	(0.0769)
Age of head	0.0254***	0.0350***	0.0406***
	(0.00306)	(0.00384)	(0.00668)
Married	0.438*	0.892***	1.388***
	(0.241)	(0.217)	(0.334)
Divorced	0.410	0.622**	0.731***
	(0.270)	(0.308)	(0.208)
Widowed	0.353	0.559**	1.323***
	(0.283)	(0.224)	(0.321)
Primary education	0.667***	0.717***	0.525***
	(0.0890)	(0.0534)	(0.0692)
Secondary education	1.192***	1.293***	1.218***
	(0.109)	(0.0715)	(0.0719)
Tertiary education	1.770***	2.057***	1.807***
	(0.141)	(0.113)	(0.138)
Remit received	-1.358***	-1.800***	-1.082***
	(0.273)	(0.269)	(0.142)
Ln remit	0.150***	0.189***	0.123***
	(0.0311)	(0.0253)	(0.0148)
Eastern Region	-0.522**	-0.292***	-0.431***
	(0.204)	(0.105)	(0.107)
Western Region	0.0195	0.0965	-0.280**
	(0.188)	(0.119)	(0.124)
Mid-western Region	-0.285	0.104	-0.363***
	(0.203)	(0.126)	(0.110)
Far-western Region	-0.0412	0.351**	-0.375***
	(0.143)	(0.146)	(0.120)
Constant	-0.00402	-0.00275	-0.0413
	(0.173)	(0.138)	(0.123)
Observations	3,345	3,912	5,988
R-squared	0.310	0.362	0.292

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

In table 6 the coefficients of the conflict 2, 3 and 4 variables show difference in asset value as compared to households in district in conflict 1. Even, though statistically not significant the value of asset held by households in conflict 4 is 24% higher which shows that households here are the comparatively well off in terms of asset holdings than households in other districts before civil war. The household have lowest expenditure but most well of in terms of asset value. This indicates that there could have been significant land inequality, which Murshed and Gates (2005) point out as one of causes of the civil war.

Contrasting results can be seen in the coefficients of the interaction term (urban*conflict intensity) when compared to that of household expenditure. There is declining trend at low level of conflict which shows in terms of assets the urban rural gap is being closed in these districts. In districts with medium level of conflict there has been a substantial decline in the difference in asset holdings between urban and rural households from 112% in wave 1 to 62% in wave 2 but after the conflict the gap seems stable at 60%. In districts in very high level of conflict we can see initial decline in the urban-rural gap due to conflict as it declines from 71% to 31.5% but after conflict we can see a rise in the gap which moves to 61.5%. This could have been the result of the rebels seizing lands in rural areas which belonged to rich households during the war and most of it were returned after the war while many rich households were forced to sell the lands at lower prices (Carter Center 2012).

Similar to the results from the regression of household expenditure household size, share of dependents in the household and the education level of head of household have significant impact on the total asset value held by the household and the direction of the coefficients are as expected. In addition, share of male members in household, household head being male and the marital status of head of household also has significant effect the total value of assets owned by the household.

Also, the negative coefficient of household with male as head is expected as most of households where the female are head of households are those where the male counterpart has migrated for work and there is a consistent flow of income which means higher possibility for investing in assets. For log of remittance, remittance received, we see a statistically significant coefficient the over the waves. We can say that a 10% increase in remittance lead to 1 to 2% increase in asset value, highest during the civil war.

We can see there is not much difference in the results from asset value for per household member regression (presented in Appendix B Table 18). Only substantial difference in sign of coefficients is for household size which has negative coefficients implying with every increase in household size assets per household member declines. This is the case because normally household expenditure has linear relationship with household size (Deaton 1997) whereas, it is not the case with asset holding as they generally stay the same over long period of time as they are long term so increase in household size will lead to decrease of asset value per member.

In addition to the OLS regressions we ran the same model only including households of which the household head has never migrated as a robustness check

to exclude households who may have migrated as a result of the conflict. The observations are reduced in wave 1, 2 and 3 by 12.5%, 45% and 53% respectively which indicates that there has been an increase in internal migration across waves.

Table 7: Migration Robustness Check for OLS regression

	Household Expenditure			Household Asset Value		
VARIABLES	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Urban * Conflict 1	0.310**	0.283**	0.170***	0.797**	0.916***	-0.0320
	(0.149)	(0.141)	(0.0600)	(0.320)	(0.248)	(0.165)
Urban * Conflict 2	0.453***	0.189	0.188**	1.057***	0.900***	0.493***
	(0.104)	(0.153)	(0.0797)	(0.359)	(0.291)	(0.154)
Urban * Conflict 3	-0.0361	-0.0755	0.0420	-0.247	0.184	0.317**
	(0.202)	(0.106)	(0.0769)	(0.324)	(0.179)	(0.140)
Urban * Conflict 4	0.859***	0.0708	0.0508	0.724***	0.121	0.517**
	(0.0575)	(0.105)	(0.0692)	(0.126)	(0.294)	(0.208)

Note: Controlling for following covariates – Conflict 2-4, household size, share of dependent, share of males, married, divorced or separated, widowed, education: primary, secondary, tertiary, remittance (dummy), log of remittance, region: eastern, western, mid-western, far-western. Reference category: Conflict1, single, no education and central region

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

As results for all the other variables in the non-migrant regression are nominally higher or lower and in same direction only results for the interaction terms have been presented in Table 7. The full table is presented in the Appendix B Table 19 and per member non-migrant regression in Table 20 (Appendix B). Coefficients of the interaction terms when compared to that of full sample, the results are similar for expenditure. For conflict 1 we can see urban-rural divide which declines across waves, but still exists after the civil war. But in conflict 4, before civil war the urban rural divide in expenditure is extremely high while we cannot see the divide during and after the conflict. While, for asset holdings at conflict 4, the divide is present before and after the war but not during the war. Interestingly in conflict 1, as we move from wave 1 to 2, the urban-rural gap in asset value increases whereas, this declined in the full-sample regression. This points out that the result of decline in the gap in the full-sample regression may be due to the migration of poor households from high conflict areas to urban areas in the low conflict areas significantly lowering the urban average of asset holdings in the full sample regression.

4.2 Results from IV - 2SLS approach

To correct the endogeneity problem between remittance variables and the dependent variables we use IV approach. The results from the IV-2SLS approach are presented in tables 8-10. In Table 8 the first stage regression results with clustered standard errors are shown at household level. The cluster used is the 'group' (households from same district belonging to the same area: urban/rural). Only coefficients for the IVs have been reported in Table 8, the full results from the first stage regressions can be found in the Appendix C (Table 21-22) for both household and

household member level. Panel I presents the results from instrumenting share of households in the group receiving remittance for remittance received (dummy variable) and Panel II instrumenting log of average remittance received by household in group for log of remittance received at household level.

Table 8: IV 2SLS First Stage results at household level

(I)			
Remit (Dummy) [Instrumented]	Wave 1	Wave 2	Wave 3
Share of households in group receiving remittance (Instrument)	0.923*** (0.0285)	0.832*** (0.0316)	0.964*** (0.0196)
Observations	3,345	3,912	5,988
R-squared	0.162	0.204	0.198
(II)			
Ln remit (Amount)[Instrumented]	Wave 1	Wave 2	Wave 3
Log of average remittance received by households in group (Instrument)	0.00362 (0.0143)	0.0721** (0.0344)	0.0959** (0.0468)
Observations	3,345	3,912	5,988
R-squared	0.174	0.218	0.213

Clustered standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$ (clustered at group level)
Source: Based on stata output from NLSS data

Results from Table 8 Panel I shows the coefficients of the IV from the first stage regressions has positive sign, high magnitude and statistically significant in all waves. This shows that the instrument is highly correlated to the instrumented variable, which is wanted when this approach is used. Also, the R-squared in all waves are high which confirms that instruments used are not weak. Whereas, in Panel II the sign is positive but magnitude is low and the coefficients are statistically significant in waves 2 and 3 only. This shows that the correlation is low but, since we have an exactly identified model (one instrument for each endogenous variable) the weak instrument bias is not much of a problem unless the correlation is zero (Angrist and Pischke 2009). Also, the R-squared values are high which also suggests against the evidence of weak instruments. Overall, the instruments are positively associated and are statistically significant so we move ahead with the second stage regressions, by instrumenting the endogenous remittance variables. The results from the second stage regressions for expenditure and assets have been presented in Table 9 and 10 respectively.

Results from Table 9 show that after correcting for endogeneity, the magnitude of the remittance variables have increased significantly as compared to the full-sample OLS estimates. An increase of 10% of remittance inflow would lead to an 8% increase in expenditure in wave 2 (during war), whereas the increase just 1% increase in the full sample OLS estimates. While, the impact of remittance before and after the war is significantly low in the IV estimate. Showing that remittances were crucial for household expenditure during the war. This is very likely as migrants send back more money for the households to smooth regular expenditure which may have been hampered due to lack of economic activities during conflict (Regan and Frank 2014).

Table 9: 2nd stage regression results for household expenditure

Log of Expenditure	Per Household		
VARIABLES	Wave 1	Wave 2	Wave 3
Remit received	-2.796	-7.653**	-2.669***
	(5.064)	(3.503)	(0.842)
Ln remit	0.322	0.840**	0.302***
	(0.636)	(0.378)	(0.0894)
Conflict 2	0.0527	0.0267	-0.0479
	(0.104)	(0.0649)	(0.0543)
Conflict 3	-0.0863	-0.0479	-0.139**
	(0.147)	(0.0637)	(0.0590)
Conflict 4	-0.131	0.129	-0.141**
	(0.112)	(0.0970)	(0.0625)
Urban * Conflict 1	0.291**	0.288***	0.174***
	(0.138)	(0.0802)	(0.0626)
Urban * Conflict 2	0.547***	0.0852	0.198**
	(0.105)	(0.125)	(0.0990)
Urban * Conflict 3	0.118	-0.0910	0.132**
	(0.283)	(0.129)	(0.0627)
Urban * Conflict 4	0.935***	0.0463	0.0916
	(0.0941)	(0.0715)	(0.0790)
Household size	0.0730**	0.0615***	0.110***
	(0.0292)	(0.0159)	(0.00713)
Share of male	-0.0618	-0.182	0.0867
	(0.168)	(0.129)	(0.0540)
Share of	-0.277**	-0.244***	-0.399***
dependents	(0.113)	(0.0706)	(0.0356)
Male (head)	0.154	0.406*	0.227**
	(0.406)	(0.244)	(0.100)
Age of head	0.00444*	0.00137	-0.000235
	(0.00256)	(0.00261)	(0.00135)
Married	0.176	0.360**	0.544***
	(0.242)	(0.173)	(0.111)
Divorced	0.108	0.363	0.501***
	(0.373)	(0.284)	(0.181)
Widowed	0.0753	0.574*	0.625***
	(0.406)	(0.308)	(0.158)
Primary education	0.151***	0.147***	0.0790***
	(0.0450)	(0.0399)	(0.0244)
Secondary education	0.248***	0.231***	0.318***
	(0.0507)	(0.0555)	(0.0353)
Tertiary education	0.640***	0.609***	0.610***
	(0.108)	(0.107)	(0.0410)
Eastern Region	-0.190	-0.0321	-0.128**
	(0.122)	(0.0604)	(0.0498)
Western Region	-0.215*	-0.118	-0.247***
	(0.129)	(0.113)	(0.0567)
Mid-western Region	-0.275*	-0.0109	-0.127*
	(0.142)	(0.0897)	(0.0761)
Far-western Region	-0.263**	-0.0219	-0.0887
	(0.129)	(0.122)	(0.0634)
Constant	10.60***	10.60***	10.91***
	(0.390)	(0.219)	(0.193)
Observations	3,345	3,912	5,988
R-squared	0.257	.	0.154

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

Coefficients of interaction term between urban and conflict intensity show similar results to that of full-sample OLS. The urban rural divide exists in very high conflict districts as well as in low and medium conflict districts before civil war. But after, the divide exists in low conflict and medium conflict districts with coefficients fairly similar to than in full-sample OLS whereas, in very high conflict districts the

divide disappears after the civil war even though the coefficients are not statistically significant.

Table 10 shows results from instrumenting the endogenous remittance variables for asset value as the dependent variable.

Table 10: 2nd stage regression results for household asset value

Log of Asset Value	Per Household		
VARIABLES	Wave 1	Wave 2	Wave 3
Remit received	-16.96*	-15.10***	-6.464***
	(8.902)	(4.741)	(1.796)
Ln remit	2.045*	1.579***	0.699***
	(1.094)	(0.494)	(0.198)
Conflict 2	-0.0233	-0.0418	-0.148
	(0.171)	(0.157)	(0.121)
Conflict 3	-0.0197	0.171	-0.134
	(0.219)	(0.124)	(0.110)
Conflict 4	0.236	-0.0212	-0.154
	(0.217)	(0.159)	(0.124)
Urban * Conflict 1	0.487	0.261**	-0.0118
	(0.339)	(0.128)	(0.163)
Urban * Conflict 2	0.928***	0.393*	0.487***
	(0.218)	(0.209)	(0.157)
Urban * Conflict 3	-0.0253	-0.205	0.477***
	(0.263)	(0.207)	(0.106)
Urban * Conflict 4	0.539**	0.220	0.476***
	(0.225)	(0.156)	(0.179)
Household size	0.0533	0.0740***	0.0927***
	(0.0524)	(0.0239)	(0.0180)
Share of male	-0.647**	-0.447**	-0.00958
	(0.324)	(0.216)	(0.134)
Share of dependents	-0.286	-0.682***	-0.568***
	(0.235)	(0.134)	(0.0732)
Male (head)	0.742	0.0219	0.331
	(0.699)	(0.315)	(0.279)
Age of head	0.0199***	0.0299***	0.0322***
	(0.00493)	(0.00452)	(0.00885)
Married	1.049	1.086***	1.814***
	(0.794)	(0.287)	(0.389)
Divorced	1.351	1.224***	1.528***
	(1.013)	(0.416)	(0.387)
Widowed	1.389	1.228***	2.133***
	(1.045)	(0.429)	(0.439)
Primary education	0.706***	0.640***	0.442***
	(0.117)	(0.0775)	(0.0925)
Secondary education	1.157***	1.083***	1.053***
	(0.159)	(0.101)	(0.123)
Tertiary education	1.518***	1.680***	1.581***
	(0.220)	(0.194)	(0.194)
Eastern Region	-0.626***	-0.249**	-0.364***
	(0.228)	(0.110)	(0.0942)
Western Region	-0.272	-0.192	-0.357***
	(0.237)	(0.148)	(0.130)
Mid-western Region	-0.128	0.310*	-0.249**
	(0.208)	(0.163)	(0.101)
Far-western Region	-0.107	0.495***	-0.192
	(0.164)	(0.189)	(0.131)
Constant	9.758***	10.16***	9.437***
	(1.133)	(0.448)	(0.747)
Observations	3,345	3,912	5,988
R-squared	.	.	0.068

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 (clustered at group level)
Source: Based on stata output from NLSS data

Results show greater impact of remittance on asset value in terms of the magnitude. But the impact declines as we move across the waves but still the impact is highly significant. Before the civil war we can see a 1% increase in remittance leads to a 2% increase in asset value, this reduces to 1.6% during the civil war whereas, after civil war the increase 1% increase in remittance leads to 0.7% percent increase in asset value. This is different than the full-sample OLS estimates which show an overall decline from wave 1 to wave 3 but in full-sample OLS, the impact of remittance is higher during the civil war. Whereas the impact is reduced in the IV estimates of asset value. The coefficients indicate that less and less of remittance have been invested on assets. While the interaction term shows similar results to the full-sample OLS where urban rural divide even though decreasing across wave still persists even after the war. As for per member regression the magnitude are quite similar except for wave 2 where the difference is of 0.6 percent. Results have been presented it Annex C Table 23 for both expenditure and assets.

4.3 Results for Oaxaca Blinder Decomposition

The main focus of the OB decomposition is on the contribution of interaction term between urban and conflict intensity on change in total gap in expenditure and asset value between different waves:

Wave 2 vs Wave 1 – difference in the urban-rural gap before and during conflict

Wave 3 vs Wave 2 – difference in the urban-rural gap during and after conflict

Wave 3 vs Wave 1 – difference in the urban-rural gap before and after conflict

Full results from the OB decomposition of log of household expenditure is presented in Table 11 between wave 2 vs 1, 3 vs 2 and 3 vs 1 in columns 1, 2 and 3 respectively. The explained part of the difference shows difference in the covariates between various waves and their contribution to overall difference. While, unexplained part focuses on the difference in the unobserved variables across waves (Jann 2008). Hence, we provide the coefficients only of the explained part of the difference for the covariates.

Table 12 shows contribution of interaction term (urban and conflict intensity) as percentage of explained part of the difference and total difference between the compared waves, as these results are of primary interest, the overall explanatory power of the model is determined by what portion of the total difference is the explained part. The greater the explained part the higher the explanatory power.

Table 11: OB decomposition of log of expenditure per household

Log of HH expenditure	(1)	(2)	(3)
VARIABLES	Wave 2 vs 1	Wave 3 vs 2	Wave 3 vs 1
Wave 3 (2010-11)	-	12.26***	12.26***
Wave 2 (2003-04)	11.76***	11.76***	-
Wave 1 (1995-96)	11.39***	-	11.39***
Difference between waves	0.373***	0.500***	0.873***
Explained part of the difference	0.0447***	0.0186**	0.0420***
Unexplained part of the difference	0.328***	0.482***	0.831***
Conflict Intensity 1: Low	-2.32e-05	0.000325	0.00176**
Conflict Intensity 2: Medium	0.000126	-0.000708*	-0.00109
Conflict Intensity 3: High	0.000394	0.000684	0.000787*
Conflict Intensity 4: Very high	-5.62e-05	3.12e-05	-9.86e-05
Interaction CONF1 and urban	0.00964***	0.0122***	0.0176***
Interaction CONF2 and urban	0.0108***	-0.00164	0.00841***
Interaction CONF3 and urban	0.00127*	0.000768*	0.00230**
Interaction CONF4 and urban	0.00332***	0.000229	0.00302***
Household size	-0.0412***	-0.0754***	-0.120***
Share of males in household	0.000214	-4.70e-05	0.000414
Share of dependents in household	0.00426**	0.00495***	0.0105***
Male as head of household	-0.000426	0.00420***	0.00271
Age of the head of household	0.00375**	0.00217*	0.00494***
Household head married	0.000572	0.00129	0.00192*
Household head divorced	0.000124	-0.000244	-4.31e-05
Household head widowed	2.82e-05	-0.00123**	-0.000641
Household head single	-2.80e-05	-0.00109**	-0.00113**
Household head no education	0.0264***	0.0314***	0.0550***
Household head primary education	-0.00414***	-0.00546***	-0.0102***
Household head secondary education	-8.28e-05	0.00211***	0.00527***
Household head tertiary education	0.00130	0.0151***	0.0153***
Remittance received or not	-0.0781***	-0.148***	-0.189***
Log of remittance received by household	0.105***	0.178***	0.236***
Eastern Region	0.000113	0.000132	-1.03e-05
Central Region	-0.000821	-0.000245	-0.00165
Western Region	0.000821	-2.66e-05	-0.000298
Mid-Western Region	-0.000826	-0.000592	-0.00104**
Far-Western Region	0.00246***	-0.000471	0.000783*
Observations Overall	7,257	9,900	9,333
Observations in wave 1	3345	-	3345
Observations in wave 2	3912	3912	
Observations in wave 3	-	5988	

*** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

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Table 12: Interaction term as percentage of difference (Expenditure)

	Wave 2 vs 1		Wave 3 vs 2		Wave 3 vs 1	
Contributions as a percentage of	Explained Part	Total Difference	Explained Part	Total Difference	Explained Part	Total Difference
Explained Part	100%	11.98%	100%	3.72%	100%	4.81%
Interaction CONF1 and urban	21.6%	2.58%	65.6%	2.44%	41.9%	2.02%
Interaction CONF2 and urban	24.2%	2.90%	-	-	20%	0.96%
Interaction CONF3 and urban	2.8%	0.34%	4.1%	0.15%	5.5%	0.26%
Interaction CONF4 and urban	7.4%	0.89%	-	-	7.2%	0.35%

Source: Based on author's calculation from table 11

The focus is on the contributions of interaction term between urban and conflict intensity. From Table 12, we can see that explained part is difference 12% comparing wave 2 vs 1. This indicates that the explanatory power of the model as it can explain only 12% of the difference in expenditure between waves. Out of the explained part of the difference, 21.6% can be contributed to the urban-rural gap in districts with low level of conflict and 24.2% to districts with medium level of conflict, whereas only 2.8% to high level conflict zone and around 7.4% to districts to with very high conflict. This shows explained differences in the expenditure of households in wave 2 and wave 1 is significantly due to urban-rural gap in expenditure in low and medium level of conflict districts. But out of the total difference in expenditure between wave 2 and wave 1 only 2.6%, 2.9%, 0.3% and 0.9% of the difference can be explained the urban-rural gap in low, medium, high and very high conflict intensity districts respectively.

The explained difference between wave 3 and 2 is 4% of total difference (showing low explanatory power of the model) of which 65.6% can be contributed to urban-rural gap in areas with low level of conflict. This shows large portion of the urban rural gap in Nepal is contributed by urban-rural gap persisting and increasing in low conflict districts. Even though the contribution as compared to the that between wave 2 and 1 it looks to have increase but when we look at the coefficient as a percentage of the total difference the contribution is smaller at 2.4%.

Looking at the overall picture before and after conflict i.e. wave 3 vs 1, out of the difference 0.0420 (5% of total difference), 62 percent can be attributed to difference in urban-rural expenditure in districts with low and medium level of conflict but it only amounts to 3% of the total difference indicating the weak explanatory power. Whereas the contribution of districts high and very high levels of conflict in the urban-rural gap in expenditure is around 13% percent of explained differences which is around only 0.6% of the total difference.

As we see the explained differences in household expenditure while comparing the waves, significant contribution is due to urban-rural expenditure difference in districts with low and medium level of conflict. The contribution from districts in high and very high level of conflict is comparatively very low which shows conflict may have had significant impact on decreasing the urban-rural gap in household expenditure in highly affected districts.

Table 13: OB decomposition of log asset value per household

Log of household asset value VARIABLES	(1) Wave 2 vs 1	(2) Wave 3 vs 2	(3) Wave 3 vs 1
Wave 3 (2010-11)	-	13.73***	13.73***
Wave 2 (2003-04)	13.01***	13.01***	-
Wave 1 (1995-96)	12.63***	-	12.63***
Difference between waves	0.375***	0.725***	1.101***
Explained part of the difference	0.162***	0.157***	0.302***
Unexplained part of the difference	0.213***	0.569***	0.799***
Conflict Intensity 1: Low	-0.000628	0.000112	0.000303
Conflict Intensity 2: Medium	-0.000115	0.000253	0.000121
Conflict Intensity 3: High	-0.000240	-0.000728	0.000734
Conflict Intensity 4: Very high	-0.000578	-0.000674	4.67e-05
Interaction CONF1 and urban	0.0148***	0.0103***	0.0197***
Interaction CONF2 and urban	0.0266***	-0.00449	0.0196***
Interaction CONF3 and urban	0.00106	0.00246*	0.00694***
Interaction CONF4 and urban	0.00355**	0.000870	0.00547***
Household size	-0.0624***	-0.0844***	-0.139***
Share of males in household	0.00122	0.00657**	0.00973**
Share of dependents in household	0.00968***	0.00933***	0.0167***
Male as head of household	0.0210***	0.0273***	0.0309***
Age of the head of household	0.0224**	0.0194*	0.0435***
Household head married	0.00135	0.00392	0.00551*
Household head divorced	-0.000238	-9.74e-05	-2.75e-05
Household head widowed	-0.000206	-0.00577**	-0.00729***
Household head single	-0.000314	-0.00555**	-0.00575**
Household head no education	0.0861***	0.0947***	0.169***
Household head primary education	-0.00801***	-0.0102***	-0.0190***
Household head secondary education	0.0157***	0.0113***	0.0289***
Household head tertiary education	0.00285	0.0334***	0.0339***
Remittance received or not	-0.139***	-0.277***	-0.350***
Log of remittance received by household	0.180***	0.322***	0.437***
Eastern Region	-0.00678*	0.00383**	-0.000374
Central Region	-0.000436	-0.000399	-0.00268
Western Region	0.00161	-0.000295	0.000460
Mid-Western Region	-0.000113	-0.000167	-0.00166*
Far-Western Region	-0.00668***	0.000754	-4.35e-05
Observations Overall	7,257	9,900	9,333
Observations in wave 1	3345	-	3345
Observations in wave 2	3912	3912	-
Observations in wave 3	-	5988	5988

*** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

Table 14: Interaction term as percentage of difference (Asset Value)

Coefficients as a percentage of	Wave 2 vs 1		Wave 3 vs 2		Wave 3 vs 1	
	Explained Part	Total Difference	Explained Part	Total Difference	Explained Part	Total Difference
Explained Part	100%	43.2%	100%	21.6%	100%	27.4%
Interaction CONF1 and urban	9.1%	3.95%	6.6%	1.42%	6.5%	1.79%
Interaction CONF2 and urban	16.4%	7.09%	-	-	6.5%	1.78%
Interaction CONF3 and urban	-	-	1.5%	0.22%	2.3%	0.63%
Interaction CONF4 and urban	2.2%	0.95%	-	-	1.8%	0.50%

Source: Based on author's calculation from table 13

Table 13 presents the OB decomposition of difference in log of household asset value between wave 2 vs 1, wave 3 vs 2 and wave 3 vs 1 in columns 1, 2 and 3 respectively. Here too we focus on the interaction term between urban and conflict intensity. In contrast to household expenditure, here the explained part of the difference makes up substantial part of the difference in household asset value across the comparison of various waves. The explanatory power is 43%, 21% and 27% in column 1, 2, and 3 respectively. The results from decomposition of wave 2 vs 1 (column 1) show that out of the difference in asset value between wave 1 and wave 2, 9.1% can be contributed to the urban-rural gap in districts with low level of conflict and 16.4% to districts with medium level of conflict, whereas only 2.2% to districts in high level conflict zone very high conflict.

Similar to the trends in household expenditure decomposition, this shows that significant contribution to the explained differences in the expenditure of households in wave 2 and 1 is due to urban-rural gap areas with low and medium level of conflict. As a percentage of the total difference the coefficients are greater in magnitude as compared to household expenditure. Table 14 shows, 11% of the total difference in asset value between the wave 2 and 1 is contributed by the urban-rural gap in low and medium level of conflict intensity districts.

When we compare wave 3 vs 2, 6.6% of the explained part is contributed by urban-rural gap in low conflict intensity districts i.e. 1.4% of the total difference. Overall, comparing asset value before and after conflict (wave3 vs wave1), out of explained difference of 4.1 percent can be attributed to difference in urban-rural asset value owned by households in high levels of conflict. Out of the overall gap in assets between households before and after the civil war the 13% of the gap is contributed by urban-rural gap in low and medium conflict level districts while only 4% is contributed by high conflict districts. Which further stresses that conflict may have played a significant role in bridging the divide in high conflict level districts even though the magnitude may be less in terms of asset value than expenditure.

The results from per household as unit of assessment is presented in the Appendix D in Table 24 and 25 for expenditure and asset value respectively. The coefficients point out to similar interpretations even though the magnitudes differ especially for expenditure which is comparatively lower. In addition, results from OB decomposition using IV with clustered standard errors have been presented in the appendix for both assets and expenditure for Wave 3 vs 2 as instruments were statistically significant only for these waves. For, this we have followed the syntax provided by Jann (2008), but there is a possibility that the procedure can lead to biased standard errors. The results have been presented in the appendix D Table 26 as the explained part are not statistically significant for interpretation and because the contribution of the instrumental variables have been dropped. Further, we carried out OB decomposition without using pooled model and clustered standard errors to avoid biased standard error as well for the empirical completeness presented in Appendix D Table 27.

4.4 Discussion of the Results

Looking at the results from the household expenditure first, the full-sample OLS shows that for urban-rural divide in expenditure, before the conflict was extremely high in areas which were immensely affected by the conflict later on (conflict 4), urban households spending almost double of what rural households did. But in districts which were slightly affected there is considerable gap but not as much as in the districts in very highly affected by conflict. During the conflict we see small decline in the urban-rural gap among districts in low and medium conflict intensity and this trend of decline continues after the war as well. Looking at the overall picture after conflict, the urban-rural gap seems to be significantly low but still persisting with urban households spending around 19 to 23 percent more than rural households in low and medium conflict intensity. Whereas, in districts highly and very highly affected by conflict we can see significantly lower divide i.e. urban households spend just around 9 to 14% more.

We cannot make a causal inference, but conflict may have led to the decline in the urban-rural divide because in districts which were immensely affected by conflict there is a significant drop in the urban rural divide before and after the conflict. As for impact of remittances we can see statistically significant results but in terms of magnitude the coefficients are small. But the results show that the impact of remittances is highest during the civil war, which points out to decline of economic activity during the war. As for the results from the model using per household member as the unit of analysis, the results are almost similar barring nominal changes in the coefficient values and this provides confirmation to the previous results. The non-migrant sample regressions showed similar results to full sample.

When we use IV to correct endogeneity between expenditure and remittances, the results show similar trends for the urban rural divide but impact of remittance significantly increases especially during conflict where a 10% increase in remittance led to 8% increase in household expenditure (close to 1:1 ratio) as compared to before conflict (3% increase). This show remittances were very important during civil war for household to regularize their expenditure. But after conflict the impact is similar to that before conflict. The results are in line to findings of Yang and Choi (2007). They argue that the migrant remittances increase when households face negative income shock, which happened during the civil war as lots of household were forced to sit home due to lack of economic activity especially in high conflict areas.

The OB decomposition shows that much of the gap in the expenditure across waves is contributed by the urban rural divide in low and medium conflict intensity districts. When we look at Expenditure before and during civil war (Wave 2 vs 1), the results show the difference in expenditure between the two waves is mainly due to the urban rural gap in the areas with low and medium level of conflict. Whereas, comparing during and after civil war we also see the same trend. The results from Wave 3 vs 1 (before and after the civil war) only confirms what the first two comparisons showed. The difference in the household expenditure before and after civil war is due to the persisting urban-rural gap in the districts with low and medium level of conflict intensity. In all the comparisons the urban rural gap in districts in

low and medium level of conflict contribute to around 60% of the difference in household expenditure across waves indicating that urban rural gap is prominent in those districts. This results incline to that of the full-sample OLS, that conflict may have led to reducing the urban-rural gap in areas affected highly by conflict but the gaps persist in less affected areas. Overall, analyzing the results from all the models we can conclude that civil war has closed the urban-rural gap in terms of household expenditure, while remittances increase during the war.

Moving on to results for asset value of household, the full sample OLS in conflict intensity levels (1, 2 and 4) where the results are statistically significant we can see there is great divide between the urban and rural households, ranging from 65%to 112 %. But in the long run, there seems to be a declining trend in the areas where the impact of conflict was comparatively lower. But in districts with very high conflict intensity we can see during conflict there seems to be a decline in the urban-rural gap but the gap widens again after the conflict, even though still smaller in comparison to that in the initial level. Even though the rural households may have covered up the gap in terms of household expenditure which may be due to the increase in the average amount of remittance received by rural households across the waves, the urban-rural gap in terms of asset holdings still persists even though there is a small decline in the gap. The results paint a confusing picture as the highly conflict affected area shows a decline in during civil war but increases after the civil war. The decline may have resulted from seizure of land by Maoists in highly affected areas. Majority of districts with high conflict intensity are in the hilly and mountainous regions of the country, terai (flatlands) being the least affected. The Carter Center (2012) report that the Maoists had given back the seized land in the hilly and mountainous regions but the still had not returned the land seized in the terai districts in Far-Western and Mid-Western regions.

But, in conflict intensity 1, we can see that the divide decreases and after conflict the divide seems to have disappeared. This may be due to large no. of households migrating to the low conflict intensity districts during as well as after the conflict bringing down the overall average of asset holdings in urban areas in conflict intensity 1. The results from non-migrant regression show that the urban rural divide in conflict intensity 1 the urban-rural divide increased during conflict which is contrary to the full sample regression, indicating that there was great magnitude of internal migration of poor households to low conflict intensity urban areas. For conflict intensity 2 as well we can see a general trend of decline as seen for household expenditure but the divide persists. The coefficients of remittance show that remittances have highest impact during conflict.

Continuing further, the results from IV-2SLS model, show the coefficients of the interaction terms point out to similar trends to the full-sample OLS across the waves, only nominal decline in the coefficients. While, remittance inflow has significant contribution on asset value, the magnitude of the coefficients show significant increase from that of the full-sample OLS estimates. Interestingly, there is a decline in impact of remittances on asset value held by households as we move across the waves. Before, the civil war remittances seem to have huge impact on asset value.

This indicates that before conflict, members of household that migrated may have been from asset rich households as they had the means to send their family members abroad to work. Whereas, asset-poor families may not have resorted to sending family members abroad as the conflict had not yet begun. There is significant decline in the coefficient of remittances received from before war to after war, from a 2% increase in asset value to 0.6% increase with every 1% increase in remittance received. This decline may be due to rise of migration of the rural population during and after the civil war to provide for the livelihood of their family. During civil war remittance still have a highly significant impact on asset value of households but it has declined compared to that before civil war. The results from the IV regressions point out that remittances have significant positive impact asset holdings of households.

Lastly, we discuss the results from the OB decomposition of asset value across the waves. The OB decomposition of asset value shows similar results while comparing asset value before and during civil war, with urban-rural gap in districts with low and medium level of conflict intensity contributing a higher share. But, in the comparison between during and after the civil war its shows a much improved picture showing decline in contribution of urban-rural gap in the total difference. While, overall impact of civil war can be seen by comparing wave 3 vs 1, which shows that the contribution of urban rural gap in areas less affected by conflict is more than 3 times of the gap in highly affected areas.

The results from analyzing asset value point out to similar interpretation that conflict may have led to reducing the urban rural divide to a certain extent but it still persists. But in low conflict intensity areas the divide seems to have disappeared, and this may be due to the migration of poor households in highly conflict affected areas to the urban areas where conflict did not have much impact. The results are not as conclusive as those shown by expenditure but overall, conflict may have led to a decline in the urban-rural gap in asset holdings but the gap still persists in majority of districts.

Chapter 5 | Conclusion

This study attempts to combine urban-rural divide and civil war and study their relationship in different direction to than what the literature provides us with. It examines the impact of civil war on the urban rural divide instead of looking at what caused the civil war. Through a within country analysis of Nepal and also analyzes how the urban-rural gap has contributed to the overall gap in expenditure and asset value across various time periods. In addition, we look at the contribution of remittances on household expenditure and asset holdings. The availability of datasets with favourable time frame, i.e. before, during and after civil war, makes it possible to analyze the urban-rural gap across these time periods. We have used various specifications (OLS, IV-2SLS and OB decomposition) to assist us with this analysis.

The findings from the study show that conflict has led to decline in the urban rural gap of the socio-economic indicators (expenditure and asset value) used in our analysis. But, the most significant impact of conflict is on bringing down the urban rural divide in expenditure in areas immensely affected by conflict, from urban households spending almost double of what their rural counterparts did before war to just around 15% more after the war. While, in other areas the divide has declined but still persist. We can see decline in terms the urban-rural divide of asset value during and after conflict but the gap still is highly significant. Migration of poor rural households to urban areas may have led to fall in the gap rather that rural households really closing in the gap. The results are contrary to the findings of Bircan et al (2017), as their findings show that conflict causes vertical inequality to increase, while the inequality increases further after the conflict.

Looking at it other way around, the prominence of urban-rural divide in very high conflict intensity districts both in terms of expenditure and asset value indicates that the inequality may have been a factor in causing the civil war. This echoes the findings from various studies (Deraniyagala 2005, Sharma 2006a, Sharma 2006b, Hattlebak 2009, Nepal et al 2011) which argue inequality was one of the reasons that caused the conflict. Another interesting finding is that, before conflict the districts in very high conflict intensity are comparatively worst of in terms of household expenditure but are the comparatively best in terms of asset value which also points out to the possible land inequality before the civil war pointed out by Murshed and Gates (2005) as one of the causes of the war. Therefore, land reform measures for equitable distribution of land is necessary before any closure in the urban-rural gap can be expected

The OB decomposition of expenditure and assets indicates that the contribution of urban-rural divide from low conflict areas are significantly higher in the total difference of the welfare indicators across waves showing that conflict may have played a role in decreasing the divide in areas highly affected by conflict, while the divide persists in low conflict districts.

The importance of remittances during crises/conflict is reiterated by the findings in this study. The lack of economic activities and employment opportunities, especially for non-formal labour, during conflict can lead to negative income shocks. Our findings suggest that the inflow of remittances increase during negative income shock (in our case is conflict) to smooth out the daily household expenditure and this is line to the findings of Yang and Choi (2007).

This study has examined the impact of civil war on the urban rural divide in Nepal. Firstly, the study is important as it extends the existing literature of urban-rural divide and civil war, two important areas of development economics, as it attempts to link them and examines the impact of civil war on the divide. Secondly, the study, substantiates the findings of the previous literature on the Nepalese civil war which argue that inequality was a major factor leading to the war. Thirdly, it shows that conflict can have strong impact in reducing urban-rural gap in the socio-economic welfare indicators, especially in those that can change in the short term i.e. expenditure but has lesser impact on long term indicators like assets. Fourthly, it shows that the low contribution of urban-rural divide in high conflict intensity areas to the total difference in the welfare indicators across waves indicates to a decline in urban-rural divide in these areas due to conflict. Finally, the study with its findings also supports the argument that remittances to households increase during civil war (crises) to support regular household expenses. Overall, the results suggest that the urban-rural divide could significantly decrease as a consequence of civil war in areas where the conflict intensity was very high but there is a need to address asset inequality which can be done by effective land reform polices and, it also reiterates the importance of remittances during the war.

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Appendix

A. Summary Statistics

Table 15: Summary Statistics for Household Expenditure

	Household			Per member of household		
Wave	**1**	**2**	**3**	**1**	**2**	**3**
Overall	124 (161)	166 (175)	287 (406)	24 (35)	35 (40)	68 (92)
By Urban / Rural						
Rural	101(101)	135(104)	239(379)	19 (21)	27 (21)	54 (83)
Urban	208 (275)	241 (264)	378 (438)	44 (62)	53 (61)	94 (103)
By Conflict intensity Level						
1	146 (200)	192 (224)	343 (515)	30 (44)	41 (50)	82 (115)
2	131 (150)	168 (155)	286 (347)	25 (36)	35 (36)	67 (77)
3	98 (104)	124 (79)	223 (239)	18 (19)	25 (20)	54 (64)
4	82 (79)	139 (87)	190 (136)	14 (14)	29 (23)	44 (36)
By Urban Rural and Conflict intensity Level						
Rural – 1	111 (111)	137 (112)	278 (569)	21 (26)	27 (21)	62 (118)
Urban – 1	210 (292)	275 (307)	408 (442)	45 (63)	60 (70)	103 (108)
Rural – 2	111 (106)	148 (127)	243 (204)	20 (20)	29 (23)	55 (52)
Urban – 2	231 (257)	214 (196)	385 (538)	47 (71)	50 (51)	93 (113)
Rural – 3	94 (102)	119 (74)	213 (241)	17 (17)	23 (19)	51 (66)
Urban – 3	136 (124)	147 (99)	258 (229)	26 (33)	31 (21)	63 (53)
Rural – 4	76 (56)	134 (83)	185 (134)	13 (9)	28 (23)	42 (34)
Urban – 4	286 (271)	173 (112)	225 (145)	57 (51)	36 (20)	55 (47)
Note: The data in '000 NRs. Normalized to 2010 NRs. Mean values given with Standard Deviation in parenthesis.						

Source: Based on stata output using NLSS data

Table 16: Summary Statistics for dependent variables for Asset value

Wave	Household			Per member of household		
	1	2	3	1	2	3
Overall	1165 (3439)	1362 (3574)	3604 (11500)	218 (658)	283 (743)	907 (2862)
By Urban / Rural						
Rural	612 (1714)	747 (1614)	1877 (7109)	110 (338)	146 (320)	459 (1688)
Urban	3219 (6285)	2812 (5815)	6828 (16400)	620 (1189)	606 (1210)	1743 (4135)
By Conflict intensity Level						
1	1778 (4735)	1715 (4250)	4919 (12100)	164 (919)	357 (870)	1249 (3272)
2	1073 (2732)	1573 (4217)	3636 (13400)	133 (455)	333 (884)	895 (2986)
3	409 (657)	745 (932)	2134 (10900)	107 (131)	146 (241)	536 (2456)
4	544 886)	684 (1403)	1069 (1555)	87 (246)	144 (316)	264 (448)
By Urban Rural and Conflict intensity Level						
Rural – 1	858 (2485)	809 (1745)	2395 (4799)	157 (506)	160 (363)	599 (1520)
Urban – 1	3488 (6940)	3058 (6110)	7510 (16100)	690 (1326)	649 (1242)	1917 (4296)
Rural – 2	576 (1513)	878 (2251)	2011 (8548)	97 (220)	167 (390)	452 (1337)
Urban – 2	3526 (5092)	3107 (6522)	7380 (20200)	621 (877)	701 (1408)	1915 (4888)
Rural – 3	369 (563)	634 (722)	1662 (10300)	65 (93)	122 (187)	427 (2586)
Urban – 3	797 (1175)	1305 (1507)	3843 (12900)	140 (308)	268 (399)	933 (1861)
Rural – 4	495 (744)	573 (1003)	934 (1303)	95 (235)	120 (247)	229 (393)
Urban – 4	2256 (2516)	1627 (3052)	2171 (2646)	413 (400)	341 (628)	551 (700)

Note: Data in '000 NRs., Normalized to 2010 NRs. Mean values given with Standard deviation in parenthesis.

Source: Based on stata output using NLSS data

B. Results from OLS Regressions

Table 17: Regression results for household expenditure per member

Log of Expenditure	Per Household member		
	(1)	(2)	(3)
VARIABLES	wave 1	wave 2	wave 3
Conflict 2	0.0326	0.0516	-0.00569
	(0.0994)	(0.0695)	(0.0514)
Conflict 3	-0.0895	-0.0407	-0.118**
	(0.141)	(0.0709)	(0.0571)
Conflict 4	-0.147	0.127	-0.138**
	(0.106)	(0.0816)	(0.0597)
Urban *	0.310**	0.337***	0.175***
Conflict 1	(0.146)	(0.108)	(0.0661)
Urban *	0.593***	0.204*	0.229**
Conflict 2	(0.103)	(0.122)	(0.0918)
Urban *	0.165	0.0554	0.0920
Conflict 3	(0.268)	(0.0881)	(0.0592)
Urban *	0.987***	0.0952	0.130*
Conflict 4	(0.0660)	(0.0714)	(0.0761)
Household size	-0.0681***	-0.0740***	-0.0715***
	(0.00573)	(0.00553)	(0.00423)
Share of male	-0.105	0.00943	-0.00515
	(0.0728)	(0.0493)	(0.0410)
Share of	-0.456***	-0.346***	-0.512***
dependents	(0.0615)	(0.0496)	(0.0296)
Male (head)	0.0232	-0.0665	-0.108***
	(0.0459)	(0.0451)	(0.0218)
Age of head	0.00618***	0.00760***	0.00587***
	(0.00130)	(0.00110)	(0.000637)
Married	-0.0813	-0.0486	0.102**
	(0.110)	(0.0867)	(0.0409)
Divorced	0.0735	-0.156	0.0455
	(0.149)	(0.102)	(0.0595)
Widowed	-0.122	-0.0704	0.0750
	(0.122)	(0.0871)	(0.0495)
Primary	0.140***	0.169***	0.111***
education	(0.0400)	(0.0288)	(0.0230)
Secondary	0.241***	0.339***	0.393***
education	(0.0445)	(0.0338)	(0.0256)
Tertiary	0.646***	0.786***	0.720***
education	(0.0565)	(0.0685)	(0.0305)
Remit received	-0.612***	-0.796***	-0.441***
	(0.169)	(0.110)	(0.0648)
Ln remit	0.0865***	0.109***	0.0645***
	(0.0257)	(0.0129)	(0.00664)
Eastern Region	-0.158	-0.0443	-0.159***
	(0.119)	(0.0690)	(0.0505)
Western	-0.159*	0.0714	-0.192***
Region	(0.0944)	(0.0686)	(0.0515)
Mid-western	-0.296**	-0.0948	-0.178**
Region	(0.122)	(0.0769)	(0.0758)
Far-western	-0.236*	-0.0434	-0.157***
Region	(0.130)	(0.0869)	(0.0508)
Constant	10.13***	10.21***	10.90***
	(0.159)	(0.128)	(0.0659)
Observations	3,345	3,912	5,988
R-squared	0.330	0.404	0.394

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

Table 18: Regression results for asset value per member in all waves

Log of Asset value	Per household member		
	(1)	(2)	(3)
VARIABLES	wave 1	wave 2	wave 3
Conflict 2	–0.0263	–0.00232	–0.0416
	(0.172)	(0.135)	(0.123)
Conflict 3	–0.0567	0.198	–0.0653
	(0.192)	(0.128)	(0.109)
Conflict 4	0.215	–0.0137	–0.123
	(0.207)	(0.132)	(0.135)
Urban *	0.635**	0.407***	0.0535
Conflict 1	(0.295)	(0.128)	(0.160)
Urban *	1.135***	0.627***	0.593***
Conflict 2	(0.315)	(0.161)	(0.136)
Urban *	–0.0800	0.0857	0.390***
Conflict 3	(0.230)	(0.164)	(0.137)
Urban *	0.719***	0.307	0.586***
Conflict 4	(0.125)	(0.196)	(0.167)
Household size	–0.0135	–0.0334***	–0.0734***
	(0.00932)	(0.00911)	(0.0113)
Share of male	–0.345**	–0.172	–0.173*
	(0.147)	(0.134)	(0.0919)
Share of	–0.701***	–0.818***	–0.730***
dependents	(0.112)	(0.0882)	(0.0641)
Male (head)	–0.254**	–0.555***	–0.342***
	(0.105)	(0.111)	(0.0748)
Age of head	0.0267***	0.0373***	0.0428***
	(0.00301)	(0.00357)	(0.00644)
Married	0.245	0.649***	1.142***
	(0.246)	(0.208)	(0.311)
Divorced	0.467	0.533*	0.632***
	(0.293)	(0.286)	(0.193)
Widowed	0.257	0.382*	1.141***
	(0.285)	(0.212)	(0.302)
Primary	0.658***	0.718***	0.522***
education	(0.0870)	(0.0529)	(0.0683)
Secondary	1.183***	1.303***	1.223***
education	(0.106)	(0.0676)	(0.0681)
Tertiary	1.750***	2.045***	1.815***
education	(0.140)	(0.117)	(0.132)
Remit received	–1.031***	–1.373***	–0.868***
	(0.228)	(0.224)	(0.122)
Ln remit	0.140***	0.174***	0.121***
	(0.0368)	(0.0250)	(0.0148)
Eastern Region	–0.514**	–0.303***	–0.441***
	(0.204)	(0.103)	(0.107)
Western	0.0404	0.113	–0.271**
Region	(0.188)	(0.117)	(0.125)
Mid-western	–0.283	0.118	–0.370***
Region	(0.201)	(0.127)	(0.110)
Far-western	–0.0223	0.359**	–0.374***
Region	(0.146)	(0.144)	(0.123)
Constant	–0.0263	–0.00232	–0.0416
	(0.172)	(0.135)	(0.123)
Observations	3,345	3,912	5,988
R-squared	0.282	0.356	0.305

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Based on stata output from NLSS data

Table 19: Migration robustness check (per household)

	Household Expenditure			Household Asset Value		
VARIABLES	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Conflict 2	0.0739	0.0137	-0.0514	0.0469	0.0688	0.00986
	(0.108)	(0.0709)	(0.0514)	(0.187)	(0.190)	(0.125)
Conflict 3	-0.0866	-0.0247	-0.0911	-0.0157	0.323**	-0.0633
	(0.147)	(0.0712)	(0.0661)	(0.200)	(0.154)	(0.123)
Conflict 4	-0.118	0.104	-0.240***	0.306	0.0358	-0.133
Urban *	0.310**	0.283**	0.170***	0.797**	0.916***	-0.0320
Conflict 1	(0.149)	(0.141)	(0.0600)	(0.320)	(0.248)	(0.165)
Urban *	0.453***	0.189	0.188**	1.057***	0.900***	0.493***
Conflict 2	(0.104)	(0.153)	(0.0797)	(0.359)	(0.291)	(0.154)
Urban *	-0.0361	-0.0755	0.0420	-0.247	0.184	0.317**
Conflict 3	(0.202)	(0.106)	(0.0769)	(0.324)	(0.179)	(0.140)
Urban *	0.859***	0.0708	0.0508	0.724***	0.121	0.517**
Conflict 4	(0.0575)	(0.105)	(0.0692)	(0.126)	(0.294)	(0.208)
Household size	0.0830***	0.0857***	0.132***	0.140***	0.100***	0.141***
	(0.00481)	(0.00530)	(0.00932)	(0.0122)	(0.0105)	(0.0205)
Share of male	0.0212	0.0285	0.0887	-0.157	0.0414	0.0785
	(0.0865)	(0.0735)	(0.0651)	(0.167)	(0.182)	(0.153)
Share of	-0.316***	-0.270***	-0.379***	-0.567***	-0.725***	-0.527***
dependents	(0.0712)	(0.0607)	(0.0430)	(0.131)	(0.126)	(0.0949)
Male (head)	0.0782	-0.0372	-0.0101	-0.274**	-0.340*	-0.504***
	(0.0488)	(0.0789)	(0.0346)	(0.110)	(0.176)	(0.114)
Age of head	0.00503***	0.00562***	0.00316**	0.0254***	0.0288***	0.0550***
	(0.00135)	(0.00128)	(0.00129)	(0.00290)	(0.00259)	(0.00696)
Married	0.101	0.106	0.362***	0.289	-0.0196	1.799***
	(0.114)	(0.116)	(0.0383)	(0.232)	(0.193)	(0.286)
Divorced	0.0348	-0.125	0.168**	0.261	-0.199	0.973***
	(0.148)	(0.154)	(0.0796)	(0.266)	(0.283)	(0.241)
Widowed	-0.0376	-0.00878	0.309***	0.154	-0.390	1.623***
	(0.115)	(0.129)	(0.0579)	(0.269)	(0.239)	(0.293)
Primary	0.148***	0.164***	0.0893***	0.653***	0.740***	0.603***
education	(0.0441)	(0.0372)	(0.0303)	(0.0931)	(0.0780)	(0.0934)
Secondary	0.231***	0.339***	0.391***	1.172***	1.302***	1.347***
education	(0.0490)	(0.0491)	(0.0360)	(0.128)	(0.0890)	(0.0816)
Tertiary	0.627***	0.812***	0.705***	1.668***	2.070***	1.927***
education	(0.0576)	(0.0610)	(0.0391)	(0.155)	(0.126)	(0.144)
Remit received	-0.593***	-0.749***	-0.731***	-0.975***	-1.080***	-1.475***
	(0.213)	(0.125)	(0.105)	(0.303)	(0.356)	(0.235)
Ln remit	0.0624**	0.0808***	0.0823***	0.0966**	0.117***	0.168***
	(0.0262)	(0.0138)	(0.00970)	(0.0373)	(0.0393)	(0.0229)
Eastern	-0.186	0.0250	-0.133**	-0.580***	-0.398***	-0.289**
Region	(0.125)	(0.0674)	(0.0550)	(0.216)	(0.149)	(0.123)
Western	-0.217**	0.0452	-0.108*	-0.00129	0.132	-0.0279
Region	(0.101)	(0.0781)	(0.0552)	(0.199)	(0.177)	(0.146)
Mid-western	-0.331***	-0.106	-0.00514	-0.331	0.106	-0.118
Region	(0.123)	(0.0755)	(0.0666)	(0.239)	(0.146)	(0.136)
Far-western	-0.325**	0.00567	-0.152**	-0.117	0.195	-0.135
Region	(0.134)	(0.0968)	(0.0650)	(0.164)	(0.166)	(0.126)
Constant	10.63***	10.81***	11.14***	10.54***	10.99***	8.593***
	(0.158)	(0.153)	(0.0864)	(0.398)	(0.315)	(0.615)
Observations	2,935	2,158	2,804	2,935	2,158	2,804
R-squared	0.304	0.358	0.379	0.321	0.428	0.313

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

Table 20: Migration Robustness check (per household member)

VARIABLES	Household Expenditure			Household Asset Value		
	wave 1	wave 2	wave 3	wave 1	wave 2	wave 3
CONF2	0.0466	-0.00216	-0.0406	0.0209	0.0538	0.0173
	(0.0359)	(0.0341)	(0.0400)	(0.0737)	(0.0731)	(0.106)
CONF3	-0.0984**	-0.0155	-0.0842*	-0.0272	0.332***	-0.0611
	(0.0383)	(0.0339)	(0.0484)	(0.0785)	(0.0727)	(0.129)
CONF4	-0.140***	0.0737	-0.243***	0.284**	0.00636	-0.138
	(0.0537)	(0.0491)	(0.0616)	(0.110)	(0.105)	(0.164)
URB_CONF1	0.293***	0.263***	0.159***	0.782***	0.896***	-0.0461
	(0.0450)	(0.0413)	(0.0338)	(0.0923)	(0.0886)	(0.0898)
URB_CONF2	0.489***	0.182***	0.181***	1.091***	0.894***	0.482***
	(0.0748)	(0.0581)	(0.0492)	(0.153)	(0.124)	(0.131)
URB_CONF3	0.0353	-0.101	0.0319	-0.177	0.159	0.310**
	(0.0939)	(0.0752)	(0.0555)	(0.193)	(0.161)	(0.148)
URB_CONF4	0.835***	0.0220	0.0583	0.703	0.0724	0.519**
	(0.210)	(0.137)	(0.0932)	(0.431)	(0.294)	(0.248)
hhsize	-0.0694***	-0.0672***	-0.0758***	-0.0108	-0.0510***	-0.0547***
	(0.00451)	(0.00422)	(0.00560)	(0.00925)	(0.00904)	(0.0149)
share_male_hh	-0.0728	0.0179	0.0314	-0.245*	0.0325	0.0384
	(0.0704)	(0.0685)	(0.0526)	(0.144)	(0.147)	(0.140)
share_depen_hh	-0.457***	-0.323***	-0.502***	-0.711***	-0.780***	-0.641***
	(0.0576)	(0.0518)	(0.0460)	(0.118)	(0.111)	(0.122)
male	0.0283	-0.0970**	-0.0306	-0.333***	-0.397***	-0.516***
	(0.0454)	(0.0487)	(0.0326)	(0.0930)	(0.104)	(0.0867)
head_age	0.00631***	0.00809***	0.00519***	0.0268***	0.0313***	0.0568***
	(0.00100)	(0.000929)	(0.00100)	(0.00206)	(0.00199)	(0.00267)
married	-0.0843	-0.0599	0.134**	0.100	-0.188	1.586***
	(0.0883)	(0.0866)	(0.0598)	(0.181)	(0.186)	(0.159)
divorced	0.0849	-0.116	0.0560	0.305	-0.192	0.877***
	(0.136)	(0.141)	(0.0975)	(0.279)	(0.303)	(0.259)
widowed	-0.118	-0.118	0.145**	0.0661	-0.502**	1.477***
	(0.100)	(0.0959)	(0.0733)	(0.206)	(0.206)	(0.195)
primary_edu	0.132***	0.176***	0.0891***	0.638***	0.752***	0.602***
	(0.0373)	(0.0325)	(0.0333)	(0.0765)	(0.0697)	(0.0885)
secondary_edu	0.222***	0.349***	0.380***	1.164***	1.313***	1.332***
	(0.0368)	(0.0316)	(0.0311)	(0.0754)	(0.0677)	(0.0828)
tertiary_edu	0.611***	0.774***	0.696***	1.655***	2.034***	1.916***
	(0.0570)	(0.0571)	(0.0405)	(0.117)	(0.122)	(0.108)
remit_rec	-0.537***	-0.625***	-0.596***	-0.725***	-0.837***	-1.293***
	(0.117)	(0.114)	(0.0750)	(0.239)	(0.245)	(0.199)
lnremit_per_mem	0.0716***	0.0839***	0.0800***	0.0852**	0.112***	0.174***
	(0.0168)	(0.0149)	(0.00805)	(0.0345)	(0.0320)	(0.0214)
REG1	-0.175***	0.0183	-0.140***	-0.568***	-0.404***	-0.295***
	(0.0343)	(0.0293)	(0.0311)	(0.0703)	(0.0629)	(0.0826)
REG3	-0.200***	0.0629*	-0.0956***	0.0186	0.150**	-0.0180
	(0.0381)	(0.0348)	(0.0337)	(0.0781)	(0.0745)	(0.0897)
REG4	-0.329***	-0.0704	-0.0320	-0.331***	0.142	-0.139
	(0.0564)	(0.0464)	(0.0548)	(0.116)	(0.0994)	(0.146)
REG5	-0.308***	0.0292	-0.142***	-0.1000	0.218**	-0.117
	(0.0493)	(0.0507)	(0.0497)	(0.101)	(0.109)	(0.132)
Constant	10.14***	10.17***	10.90***	10.05***	10.33***	8.280***
	(0.107)	(0.103)	(0.0808)	(0.219)	(0.221)	(0.215)
Observations	2,935	2,158	2,804	2,935	2,158	2,804
R-squared	0.321	0.335	0.385	0.290	0.421	0.298

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output from NLSS data

C. Results from IV 1ˢᵗ Stage Regressions and 2ⁿᵈ stage per member regression
Table 21: IV stage I regressions per household as unit of analysis

	Remit (Dummy) [Instrumented] = Share of households in group receiving remittance (Instrument)			Ln remit (Amount)[Instrumented]= Log of average remittance received by households in group (Instrument)		
VARIABLES	wave 1	wave 2	wave 3	wave 1	wave 2	wave 3
CONF2	-0.0169**	-0.00754	-0.0131	-0.0961*	-0.0348	0.0262
	(0.00669)	(0.00881)	(0.00799)	(0.0504)	(0.113)	(0.0972)
CONF3	-0.0201**	-0.0108	-0.0220***	-0.165**	-0.0884	-0.0739
	(0.00845)	(0.00894)	(0.00832)	(0.0742)	(0.0956)	(0.102)
CONF4	-0.00580	-0.0185	-0.0174*	-0.0482	-0.132	0.0151
	(0.00924)	(0.0144)	(0.0101)	(0.0955)	(0.143)	(0.125)
URB_CONF1	-0.0468***	-0.0251*	-0.0282**	-0.343***	-0.204*	-0.301**
	(0.0124)	(0.0127)	(0.0125)	(0.112)	(0.121)	(0.116)
URB_CONF2	-0.0182*	0.0126	-0.0161*	-0.107	0.237	-0.100
	(0.0108)	(0.0157)	(0.00865)	(0.0905)	(0.156)	(0.117)
URB_CONF3	-0.0262	0.0200	-0.0123	-0.263	0.456***	-0.177
	(0.0201)	(0.0153)	(0.0124)	(0.176)	(0.156)	(0.183)
URB_CONF4	-0.0239*	0.00669	-0.0308***	-0.136	0.107	-0.207*
	(0.0131)	(0.0147)	(0.0105)	(0.136)	(0.140)	(0.118)
hhsize	0.00875**	0.00754*	-9.21e-05	0.115***	0.112***	0.0300
	(0.00340)	(0.00422)	(0.00462)	(0.0322)	(0.0411)	(0.0485)
share_male_hh	0.103***	0.100**	-0.0799**	1.054***	1.119**	-1.003***
	(0.0349)	(0.0449)	(0.0337)	(0.295)	(0.434)	(0.365)
share_depen_hh	-0.0331	0.00830	0.0318	-0.398	0.0391	0.186
	(0.0352)	(0.0399)	(0.0262)	(0.304)	(0.386)	(0.290)
male	-0.380***	-0.459***	-0.345***	-3.618***	-4.782***	-4.299***
	(0.0277)	(0.0358)	(0.0176)	(0.228)	(0.351)	(0.183)
head_age	0.00184**	0.00382***	0.00408***	0.0180***	0.0400***	0.0526***
	(0.000701)	(0.000855)	(0.000688)	(0.00600)	(0.00838)	(0.00773)
married	-0.140*	-0.173***	-0.194***	-1.466*	-1.805***	-2.515***
	(0.0710)	(0.0548)	(0.0369)	(0.790)	(0.568)	(0.389)
divorced	-0.237**	-0.342***	-0.326***	-2.438**	-3.719***	-4.391***
	(0.0978)	(0.0738)	(0.0592)	(0.969)	(0.742)	(0.624)
widowed	-0.252***	-0.347***	-0.346***	-2.619***	-3.799***	-4.572***
	(0.0746)	(0.0586)	(0.0437)	(0.837)	(0.603)	(0.455)
primary_edu	-0.0120	-0.0495**	0.00461	-0.122	-0.437**	0.170
	(0.0197)	(0.0205)	(0.0190)	(0.173)	(0.202)	(0.193)
secondary_edu	0.0185	-0.0325	0.0323*	0.166	-0.181	0.555***
	(0.0180)	(0.0203)	(0.0169)	(0.155)	(0.201)	(0.200)
tertiary_edu	0.0684*	-0.00339	0.0983***	0.686*	0.190	1.265***
	(0.0374)	(0.0246)	(0.0209)	(0.351)	(0.255)	(0.203)
share_rem_rec_dist_ur	0.923***	0.832***	0.964***	7.164***	7.362***	8.189***
	(0.0285)	(0.0316)	(0.0196)	(0.280)	(0.302)	(0.243)
ln_avg_dist_ur_	-0.00453***	0.000461	-0.0149***	0.00362	0.0721**	0.0959**
rem_rec	(0.00141)	(0.00243)	(0.00456)	(0.0143)	(0.0344)	(0.0468)
REG1	-0.0137*	0.00576	-0.00603	-0.0485	0.0451	-0.0858
	(0.00709)	(0.00790)	(0.00770)	(0.0592)	(0.0826)	(0.0835)
REG3	-0.0227***	-0.0293***	-0.0290***	-0.0481	-0.0529	-0.103
	(0.00852)	(0.0103)	(0.00875)	(0.0586)	(0.113)	(0.110)
REG4	-0.0137	0.0102	-0.00633	-0.154	0.0119	-0.193*
	(0.0109)	(0.0136)	(0.00923)	(0.110)	(0.147)	(0.109)
REG5	-0.00604	0.0236*	-0.0196*	-0.0122	0.181	-0.456***
	(0.0107)	(0.0123)	(0.0115)	(0.101)	(0.115)	(0.124)
Constant	0.372***	0.367***	0.478***	3.173***	2.992***	3.447***
	(0.0826)	(0.0759)	(0.0696)	(0.878)	(0.801)	(0.753)
Observations	3,345	3,912	5,988	3,345	3,912	5,988
R-squared	0.162	0.204	0.198	0.174	0.218	0.213

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Based on stata output using NLSS data

Table 22: IV stage I regressions per household member as unit of analysis

VARIABLES	Remit (Dummy) [Instrumented] = Share of households in group receiving remittance (Instrument)			Ln remit (Amount)[Instrumented]= Log of average remittance received by households in group (Instrument)		
	wave 1	wave 2	wave 3	wave 1	wave 2	wave 3
CONF2	-0.0161**	-0.00753	-0.0114	-0.0905**	-0.0220	0.0755
	(0.00633)	(0.00883)	(0.00746)	(0.0431)	(0.102)	(0.0932)
CONF3	-0.0184**	-0.0109	-0.0181**	-0.134**	-0.0712	-0.0169
	(0.00785)	(0.00895)	(0.00818)	(0.0619)	(0.0805)	(0.0978)
CONF4	-0.00453	-0.0186	-0.0150	-0.0421	-0.124	0.0552
	(0.00901)	(0.0144)	(0.00957)	(0.0859)	(0.120)	(0.118)
URB_CONF1	-0.0422***	-0.0250*	-0.0229**	-0.274***	-0.171	-0.258**
	(0.0120)	(0.0129)	(0.0105)	(0.100)	(0.104)	(0.101)
URB_CONF2	-0.0142	0.0127	-0.0130	-0.0903	0.211	-0.0509
	(0.0102)	(0.0157)	(0.00813)	(0.0850)	(0.133)	(0.114)
URB_CONF3	-0.0252	0.0198	-0.0126	-0.155	0.366***	-0.201
	(0.0207)	(0.0151)	(0.0126)	(0.173)	(0.134)	(0.177)
URB_CONF4	-0.0237*	0.00676	-0.0280**	-0.142	0.142	-0.179*
	(0.0131)	(0.0146)	(0.0111)	(0.115)	(0.108)	(0.102)
hhsize	0.00864**	0.00754*	-0.000353	0.0556**	0.0386	-0.0832**
	(0.00340)	(0.00424)	(0.00465)	(0.0242)	(0.0331)	(0.0393)
share_male_hh	0.103***	0.100**	-0.0801**	0.777***	0.888**	-0.982***
	(0.0348)	(0.0449)	(0.0337)	(0.249)	(0.383)	(0.342)
share_depen_hh	-0.0336	0.00828	0.0309	-0.299	0.0706	0.0983
	(0.0352)	(0.0398)	(0.0262)	(0.248)	(0.335)	(0.262)
male	-0.380***	-0.459***	-0.346***	-3.042***	-4.100***	-3.852***
	(0.0277)	(0.0358)	(0.0176)	(0.184)	(0.297)	(0.155)
head_age	0.00186***	0.00382***	0.00409***	0.0162***	0.0352***	0.0473***
	(0.000701)	(0.000856)	(0.000688)	(0.00483)	(0.00714)	(0.00662)
married	-0.140*	-0.173***	-0.195***	-1.314*	-1.634***	-2.376***
	(0.0710)	(0.0548)	(0.0370)	(0.742)	(0.508)	(0.354)
divorced	-0.237**	-0.342***	-0.326***	-2.129**	-3.232***	-4.006***
	(0.0978)	(0.0738)	(0.0592)	(0.871)	(0.667)	(0.566)
widowed	-0.253***	-0.347***	-0.348***	-2.288***	-3.349***	-4.196***
	(0.0746)	(0.0587)	(0.0438)	(0.784)	(0.539)	(0.411)
primary_edu	-0.0116	-0.0494**	0.00547	-0.0995	-0.343**	0.159
	(0.0197)	(0.0205)	(0.0190)	(0.138)	(0.168)	(0.166)
secondary_edu	0.0189	-0.0324	0.0333*	0.132	-0.124	0.511***
	(0.0180)	(0.0204)	(0.0168)	(0.124)	(0.168)	(0.176)
tertiary_edu	0.0692*	-0.00325	0.100***	0.613**	0.204	1.135***
	(0.0373)	(0.0245)	(0.0212)	(0.288)	(0.219)	(0.181)
share_rem_rec_dist_ur	0.934***	0.833***	0.973***	5.490***	6.041***	6.791***
	(0.0273)	(0.0312)	(0.0187)	(0.250)	(0.259)	(0.232)
ln_avg_dist_ur_rem_rec _per_mem	-0.00643***	0.000284	-0.0187***	0.0200	0.0754**	0.0768*
	(0.00164)	(0.00269)	(0.00439)	(0.0163)	(0.0307)	(0.0419)
REG1	-0.0129*	0.00575	-0.00619	-0.0210	0.0267	-0.0895
	(0.00664)	(0.00789)	(0.00703)	(0.0492)	(0.0728)	(0.0798)
REG3	-0.0226***	-0.0293***	-0.0269***	0.00176	-0.00772	-0.0429
	(0.00809)	(0.0102)	(0.00821)	(0.0479)	(0.0989)	(0.106)
REG4	-0.0153	0.01000	-0.00916	-0.109	-0.00673	-0.191*
	(0.0106)	(0.0135)	(0.00897)	(0.101)	(0.121)	(0.105)
REG5	-0.00651	0.0236*	-0.0239**	0.0442	0.170*	-0.445***
	(0.0108)	(0.0122)	(0.0113)	(0.0895)	(0.0936)	(0.115)
Constant	0.372***	0.368***	0.488***	2.924***	2.939***	4.046***
	(0.0823)	(0.0765)	(0.0652)	(0.812)	(0.697)	(0.635)
Observations	3,345	3,912	5,988	3,345	3,912	5,988
R-squared	0.162	0.204	0.198	0.176	0.224	0.226

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Based on stata output using NLSS data

Table 23: 2ⁿᵈ Stage IV regression results per household member

VARIABLES	Expenditure			Asset Value		
	wave 1	wave 2	wave 3	wave 1	wave 2	wave 3
remit_rec	-2.194	-8.082**	-2.524**	-14.84***	-17.88***	-5.411***
	(2.326)	(3.582)	(0.983)	(5.288)	(4.689)	(1.942)
lnremit_per_mem	0.284	1.044**	0.341***	2.258***	2.237***	0.698***
	(0.368)	(0.468)	(0.127)	(0.779)	(0.597)	(0.263)
CONF2	0.0319	0.0258	-0.0628	0.000932	-0.0531	-0.166
	(0.101)	(0.0730)	(0.0640)	(0.171)	(0.178)	(0.136)
CONF3	-0.113	-0.0480	-0.165**	-0.0324	0.168	-0.168
	(0.146)	(0.0716)	(0.0656)	(0.214)	(0.136)	(0.126)
CONF4	-0.168	0.133	-0.169***	0.209	-0.00126	-0.198
	(0.112)	(0.112)	(0.0650)	(0.222)	(0.190)	(0.133)
URB_CONF1	0.255*	0.249***	0.152**	0.437	0.170	-0.0278
	(0.135)	(0.0792)	(0.0644)	(0.352)	(0.142)	(0.162)
URB_CONF2	0.553***	0.0542	0.182*	0.913***	0.288	0.472***
	(0.107)	(0.146)	(0.0949)	(0.218)	(0.245)	(0.160)
URB_CONF3	0.137	-0.0974	0.142**	-0.112	-0.253	0.487***
	(0.279)	(0.132)	(0.0684)	(0.258)	(0.209)	(0.118)
URB_CONF4	0.931***	-0.0178	0.0837	0.616***	0.0639	0.492***
	(0.0974)	(0.0938)	(0.0825)	(0.220)	(0.157)	(0.180)
hhsize	-0.0650***	-0.0533***	-0.0473***	-0.00915	0.0153	-0.0234
	(0.00711)	(0.0139)	(0.0125)	(0.0146)	(0.0210)	(0.0232)
share_male_hh	-0.0908	-0.0869	0.0995	-0.546**	-0.344	0.0290
	(0.102)	(0.122)	(0.0684)	(0.262)	(0.233)	(0.173)
share_depen_hh	-0.447***	-0.343***	-0.466***	-0.497***	-0.811***	-0.628***
	(0.0791)	(0.0856)	(0.0384)	(0.180)	(0.168)	(0.0855)
male	0.0160	0.431	0.248	0.957*	0.334	0.326
	(0.302)	(0.328)	(0.157)	(0.528)	(0.443)	(0.394)
head_age	0.00589**	0.00221	0.00120	0.0177***	0.0271***	0.0340***
	(0.00232)	(0.00354)	(0.00199)	(0.00478)	(0.00545)	(0.0102)
married	-0.0403	0.213	0.363**	1.115	1.148**	1.651***
	(0.181)	(0.277)	(0.146)	(0.939)	(0.446)	(0.354)
divorced	0.120	0.365	0.481**	1.723	1.528**	1.481***
	(0.278)	(0.392)	(0.232)	(1.080)	(0.614)	(0.459)
widowed	-0.0681	0.541	0.530**	1.633	1.575**	2.023***
	(0.289)	(0.451)	(0.226)	(1.118)	(0.647)	(0.462)
primary_edu	0.139***	0.112**	0.0713**	0.695***	0.567***	0.442***
	(0.0416)	(0.0473)	(0.0278)	(0.118)	(0.0939)	(0.101)
secondary_edu	0.243***	0.197***	0.311***	1.145***	0.976***	1.057***
	(0.0480)	(0.0701)	(0.0419)	(0.155)	(0.120)	(0.145)
tertiary_edu	0.630***	0.529***	0.599***	1.368***	1.469***	1.583***
	(0.0895)	(0.131)	(0.0591)	(0.209)	(0.238)	(0.225)
REG1	-0.203	-0.0173	-0.132**	-0.651***	-0.214*	-0.372***
	(0.124)	(0.0652)	(0.0556)	(0.239)	(0.121)	(0.0889)
REG3	-0.189*	-0.151	-0.244***	-0.310	-0.347*	-0.352**
	(0.105)	(0.140)	(0.0613)	(0.251)	(0.187)	(0.143)
REG4	-0.278**	0.0403	-0.124	-0.135	0.427**	-0.250**
	(0.136)	(0.109)	(0.0800)	(0.200)	(0.187)	(0.103)
REG5	-0.245*	0.0157	-0.0655	-0.187	0.548***	-0.168
	(0.128)	(0.130)	(0.0743)	(0.174)	(0.196)	(0.146)
Constant	10.16***	9.772***	10.31***	8.326***	8.770***	8.611***
	(0.422)	(0.427)	(0.314)	(1.238)	(0.713)	(0.701)
Observations	3,345	3,912	5,988	3,345	3,912	5,988
R-squared	0.281		0.106			0.075

Clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Based on stata output using NLSS data

D. Results from additional Oaxaca Blinder Decomposition
Table 24: OB decomposition household expenditure per member

Log of expenditure	(1)		(2)		(3)	
VARIABLES	wave 2 vs 1		wave 3 vs 2		wave 3 vs 1	
Wave 3 (2010-11)	-		10.81***		10.81***	
Wave 2 (2003-04)	10.17***		10.17***		-	
Wave 1 (1995-96)	9.717***		-		9.717***	
Difference between waves	0.454***		0.642***		1.097***	
Explained part of the difference	0.129***		0.161***		0.270***	
Unexplained part of the difference	0.326***		0.481***		0.827***	
Conflict Intensity 1: Low	6.87e-05		0.000360		0.00193**	
Conflict Intensity 2: Medium	0.000117		-0.000772*		-0.00105	
Conflict Intensity 3: High	0.000343		0.000654		0.000770*	
Conflict Intensity 4: Very high	4.31e-05		-6.52e-05		-0.000103	
Interaction CONF1 and urban	0.00964***	7.5%	0.0120***	7.5%	0.0167***	6.2%
Interaction CONF2 and urban	0.0112***	8.7%	-0.00164	-	0.00855***	3.2%
Interaction CONF3 and urban	0.00146*	1.1%	0.000736*	0.5%	0.00258***	1%
Interaction CONF4 and urban	0.00337***	2.6%	0.000214	-	0.00297***	1.1%
Household size	0.0341***		0.0522***		0.0831***	
Share of males in household	0.000249		5.39e-05		0.00203	
Share of dependents in household	0.00575***		0.00605***		0.0136***	
Male as head of household	0.00173		0.00716***		0.00946***	
Age of the head of household	0.00513**		0.00333*		0.00756***	
Household head married	-9.57e-05		0.000323		0.000241	
Household head divorced	-2.48e-05		-0.000133		3.77e-05	
Household head widowed	0.000208		-0.000207		0.000555	
Household head single	4.16e-05		-7.42e-05		-0.000169	
Household head no education	0.0261***		0.0316***		0.0552***	
Household head primary education	-0.00409***		-0.00554***		-0.0104***	
Household head secondary education	0.000256		0.00227***		0.00532***	
Household head tertiary education	0.00126		0.0151***		0.0155***	
Remittance received or not	-0.0631***		-0.115***		-0.149***	
Log of remittance received by household	0.0933***		0.153***		0.208***	
Eastern Region	-0.000109		0.000336		-2.14e-05	
Central Region	-0.000751		-0.000243		-0.00162	
Western Region	0.000984		-9.11e-05		-0.000210	
Mid-Western Region	-0.000816		-0.000584		-0.00121**	
Far-Western Region	0.00221***		-0.000434		0.000683*	
Observations Overall	7,257		9,900		9,333	
Observations in wave 1	3345		-		3345	
Observations in wave 2	3912		3912		-	
Observations in wave 3	-		5988		5988	

*** p<0.01, ** p<0.05, * p<0.1

Source: Based on stata output using NLSS data

Table 25: OB decomposition household asset value per member

Log of asset value VARIABLES	(1) wave 2 vs 1		(2) wave 3 vs 2		(3) wave 3 vs 1	
Wave 3 (2010-11)	-		12.28***		12.28***	
Wave 2 (2003-04)	11.42***		11.42***		-	
Wave 1 (1995-96)	10.96***		-		10.96***	
Difference between waves	0.457***		0.868***		1.324***	
Explained part of the difference	0.242***		0.298***		0.528***	
Unexplained part of the difference	0.214***		0.569***		0.796***	
Conflict Intensity 1: Low	-0.000546		0.000164		0.000517	
Conflict Intensity 2: Medium	-0.000124		0.000187		0.000146	
Conflict Intensity 3: High	-0.000286		-0.000749		0.000738	
Conflict Intensity 4: Very high	-0.000490		-0.000775		4.10e-05	
Interaction CONF1 and urban	0.0148***	6.1%	0.0101***	3.4%	0.0187***	3.4%
Interaction CONF2 and urban	0.0272***	11.2%	-0.00449	-	0.0197***	3.7%
Interaction CONF3 and urban	0.00128	-	0.00244*	0.8%	0.00719***	1.4%
Interaction CONF4 and urban	0.00358**	1.4%	0.000856	-	0.00542***	1.0%
Household size	0.0112***		0.0393***		0.0580***	
Share of males in household	0.00121		0.00640*		0.0110***	
Share of dependents in household	0.0112***		0.0104***		0.0197***	
Male as head of household	0.0234***		0.0301***		0.0371***	
Age of the head of household	0.0238**		0.0206*		0.0461***	
Household head married	0.000698		0.00298		0.00386*	
Household head divorced	-0.000381		1.12e-05		5.35e-05	
Household head widowed	-1.89e-05		-0.00479**		-0.00614***	
Household head single	-0.000243		-0.00456**		-0.00482**	
Household head no education	0.0858***		0.0949***		0.169***	
Household head primary education	-0.00798***		-0.0102***		-0.0193***	
Household head secondary education	0.0160***		0.0114***		0.0289***	
Household head tertiary education	0.00282		0.0334***		0.0341***	
Remittance received or not	-0.104***		-0.222***		-0.283***	
Log of remittance received by household	0.146***		0.279***		0.386***	
Eastern Region	-0.00699*		0.00403**		-0.000387	
Central Region	-0.000365		-0.000397		-0.00265	
Western Region	0.00180		-0.000356		0.000542	
Mid-Western Region	-0.000108		-0.000159		-0.00180*	
Far-Western Region	-0.00686***		0.000804		-0.000145	
Observations Overall	7,257		9,900		9,333	
Observations in wave 1	3345		-		3345	
Observations in wave 2	3912		3912		-	
Observations in wave 3	-		5988		5988	

*** p<0.01, ** p<0.05, * p<0.1

Source: Based on stata output using NLSS data

Table 26: OB decomposition with IV with pooled model (Wave 3 vs 2)

VARIABLES	Per Household		Per Household Member	
	Expenditure	Asset Value	Expenditure	Asset Value
Wave 3	12.26***	13.73***	10.81***	12.28***
Wave 2	11.76***	13.01***	10.17***	11.42***
difference	0.500***	0.725***	0.642***	0.868***
explained	-0.00366	0.125	0.136	0.265**
unexplained	0.504***	0.601***	0.506***	0.603***
CONF1	0.000261	-1.64e-05	0.000282	3.59e-06
CONF2	-0.000791	0.000108	-0.000854	4.46e-05
CONF3	0.000662	-0.000770	0.000625	-0.000808
CONF4	-2.71e-06	-0.000727	-9.70e-05	-0.000821
URB_CONF1	0.0123	0.0109	0.0120	0.0105
URB_CONF2	-0.00172	-0.00466	-0.00171	-0.00465
URB_CONF3	0.000749	0.00243	0.000698	0.00238
URB_CONF4	0.000252	0.000911	0.000236	0.000895
hhsize	-0.0771***	-0.0874***	0.0552***	0.0449***
share_male_hh	0.000360	0.00729**	0.000759	0.00766**
share_depen_hh	0.00506	0.00953	0.00616	0.0106
male	0.0104***	0.0372***	0.0140***	0.0408***
head_age	0.00265	0.0202	0.00387	0.0214
married	0.00139	0.00409	0.000395	0.00309
divorced	-0.000360	-0.000291	-0.000252	-0.000185
widowed	-0.000502	-0.00457**	0.000600	-0.00346**
single	-0.000638	-0.00480	0.000442	-0.00371
no_edu	0.0327**	0.0970**	0.0330**	0.0972**
primary_edu	-0.00563***	-0.0104***	-0.00572***	-0.0105***
secondary_edu	0.00225*	0.0115*	0.00240*	0.0117*
tertiary_edu	0.0156	0.0342	0.0156	0.0343
REG1	0.000152	0.00387	0.000356	0.00407
REG2	-0.000250	-0.000416	-0.000247	-0.000413
REG3	-0.000157	-0.000514	-0.000230	-0.000587
REG4	-0.000677	-0.000309	-0.000671	-0.000302
REG5	-0.000661	0.000388	-0.000630	0.000419
remit_rec	0	0	0	0
lnremit	0	0	0	0
Observations	9,900	9,900	9,900	9,900

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Source: Based on stata output using NLSS data

Table 27: OB decomposition with IV without pooled model (Wave 3 vs 2)

VARIABLES	Per Household		Per Household Member	
	Expenditure	Asset Value	Expenditure	Asset Value
Wave 3	12.26***	13.73***	10.81***	12.28***
Wave 2	11.76***	13.01***	10.17***	11.42***
difference	0.500***	0.725***	0.642***	0.868***
endowments	0.260***	0.485***	0.368***	0.593***
coefficients	0.436***	0.487***	0.426***	0.505***
interaction	-0.195***	-0.247*	-0.152**	-0.231*
CONF1	-0.000463	-0.000465	-0.000454	-0.000457
CONF2	4.38e-06	0.00122	-3.90e-05	0.00118
CONF3	0.000833	-0.00161	0.000739	-0.00170
CONF4	0.00119	-0.000565	0.00106	-0.000697
URB_CONF1	0.0140***	0.0127**	0.0146***	0.0134**
URB_CONF2	-0.000638	-0.00294	-0.000762	-0.00307
URB_CONF3	-0.000759	-0.00171	-0.000720	-0.00167
URB_CONF4	8.15e-05	0.000387	8.97e-05	0.000395
hhsize	-0.0441***	-0.0530***	0.0778***	0.0689***
share_male_hh	0.00714**	0.0176**	0.00521	0.0156**
share_depen_hh	0.00325**	0.00905**	0.00413**	0.00993**
male	-0.0301***	-0.00163	-0.0242**	0.00430
head_age	0.000696	0.0152*	0.00212	0.0166*
married	0.000292	0.00164	-0.000646	0.000706
divorced	0.000128	0.00111	0.000212	0.00120
widowed	-0.00468**	-0.00644*	-0.00333*	-0.00508
single	-0.00237*	-0.00647**	-0.00119	-0.00529*
no_edu	0.0249***	0.0859***	0.0255***	0.0865***
primary_edu	-0.00306**	-0.00644**	-0.00312**	-0.00651**
secondary_edu	-0.000563	0.00820***	-0.000141	0.00862***
tertiary_edu	0.0127***	0.0291***	0.0126***	0.0290***
REG1	-7.78e-05	0.00567*	0.000265	0.00602*
REG2	-9.76e-05	0.000195	-7.68e-05	0.000216
REG3	0.000568	0.00185	0.000389	0.00168
REG4	0.000248	0.00230	0.000240	0.00229
REG5	0.000258	0.00745**	0.000300	0.00749***
remit_rec	-1.700***	-3.355***	-1.560***	-3.215***
lnremit	1.981***	3.722***	0	0
Observations	9,900	9,900	9,900	9,900

*** p<0.01, ** p<0.05, * p<0.1
Source: Based on stata output using NLSS data