

# Assessing the Impacts and Costs of Forced Displacement

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Volume I

A Mixed Methods Approach

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# INTRODUCTION AND OVERVIEW

Globally, over 40 million people have been forced to leave or flee their homes due to conflict, violence, and human rights violations either as refugees outside their country of origin or internally displaced persons (IDPs). A substantial number live in protracted displacement where return has not been possible.

Forced displacement is a humanitarian crisis: but it also produces developmental impacts – short and longer term, negative and positive - affecting human and social capital, economic growth, poverty reduction efforts, environmental sustainability and societal fragility. A prevailing view is that refugees are a burden on the development aspirations of host countries and populations and that negative socio-economic and environmental impacts and costs outweigh the positive contributions (actual or potential) that forcibly displaced people might make. The losses incurred by the displaced populations themselves reinforce perceptions of vulnerability and dependency and thus assumptions of the burden they might impose.

Accordingly, finding sustainable solutions to displacement situations constitutes a significant development challenge for the countries with refugees and IDPs, and for the international community including the World Bank. A related challenge concerns ways in which the agency of both displaced and host populations can be identified and facilitated to support developmental objectives. In recent years, the secondary migration by refugees and IDPs from camps and their spontaneous self-settlement in rural areas to urban locations – more than half the world's refugee population is now urban based – raises a novel set of challenges for humanitarian and development actors seeking to address the costs and impacts of displacement. Yet, given the lack of systematic evaluation, it is by no means clear what the overall costs and impacts of displacement are and how they might compare, for example, with the costs of programmes which provide sustainable integration of those affected by forced displacement.

Given these considerations, academics, practitioners and policy-makers from across the humanitarian and development fields have increasingly recognised the importance of recording and evaluating the multifaceted impacts and costs of forced displacement on diverse stakeholders including the refugees and internally-displaced people on the one hand,

and on host populations and countries on the other. Analysing the costs and impacts of different approaches by donors and aid agencies to address and mitigate forced displacement situations constitute an additional dimension of this aspiration. However, despite a wealth of theoretical and conceptual discussion of the importance of such measurement, and indeed the wealth of country and population specific evaluations, the subject lacks systematic and rigorous methodologies; and the potential for comparable evaluation across data sets is limited. Such research as exists is largely qualitative, case specific, limited to a small array of indicators and neglects comparative methodology. The paucity of quantitative and economic analysis is notable.

These perspectives and the evident methodological and knowledge gaps, motivate this study which both recognises, but also seeks to transcend, the predominantly subjective orientation and negative assumptions which typify most assessments of the impacts of forcibly displaced populations.

Understanding the impacts and costs of displacement is essential in order to identify and evaluate policy responses which can minimise the negative impacts of displacement, and maximise the positive opportunities arising from such contexts. A methodology which elucidates these factors in a systematic and coherent fashion is extremely important to demonstrate to donors and host governments that investing in displaced populations has legitimate and important development goals and can have positive social and economic returns.

This study provides such a methodology. The project is a collaborative effort between the Refugee Studies Centre at the University of Oxford, PRIO (Norway), FAFO (Norway) and the World Bank. The development and drafting of the methodology and the State of the Art Literature Review was conducted by the Refugee Studies Centre, with valuable and constructive inputs from the partner organisations.

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## Setting the context – the ‘State of the Art’ and principal challenges

From an initially extensive trawl of over 3,000 on-line and catalogue-based bibliographic sources (academic and agency), the literature review was refined down to nearly 500 reference works which provide the backcloth to this study. The escalating volume of this research – over half the 500 core reference works have been produced in the last decade - indicates, amongst other factors: the increasing demands for humanitarian accountability; donor concern at the significantly expanding costs of humanitarian assistance and the wish to increase the efficiency with which assistance is targeted; and growing awareness of the conceptual and operational overlap between developmental and humanitarian agendas and the profound implications this has for funding. The methodology proposed in this study will help to address these demands in a more rigorous and systematic way than has been the case to date.

Extant research is predominantly qualitative and draws on a combination of methods and disciplines to analyse and understand the lived experiences, priorities, contributions and stated goals of displaced and hosting populations. The literature review usefully points to the distinction, but also the methodological gap in extant studies, between measuring the impacts **of** displacement **on** displaced people (accounting for over two thirds of the literature surveyed), and the impacts **of** displaced people on a range of stakeholders. This distinction motivates the study, underlining the value of the fourfold typology (discussed below) which is used to structure the approach and thus to deal, in part, with the question of assessing the costs and impacts for whom.

Yet, despite the unexpectedly large volume of research literature, and whilst noting the extensive array of potential socio-economic impacts identified in current research, the review highlights a number of significant limitations and gaps. To date, there has been no comprehensive or systematic analysis of the overarching costs (or benefits) of displacement across all levels. Most studies focus on specific stakeholders in relation to specific contexts of displacement; they deploy case-specific sets of selected indicators which rarely provide quantitative measurement of impacts. In much of the current literature the dichotomy between qualitative and quantitative methods is readily apparent and mixed methods approaches are notably absent. Moreover there is a methodological tendency to associate ‘impact studies’ (which are usually qualitative or cost-indexed) with general situation reports outlining the living conditions of displaced and host populations on the one hand, and largely

qualitative evaluations of humanitarian/development programmes on the other. It is these major gaps and limitations which the current study seeks to fill.

Amongst more specific limitations the literature review reveals the following methodological and analytical challenges. Data sets are very limited and rely on non-random, small population samples. The primary focus is on the impacts of displacement on displaced populations and, to a lesser extent, hosting communities at local (often ‘closed’ socio-economic systems such as refugee camps and settlements and villages but more recently in urban contexts) and national levels (host countries from the global South and global North). Only a few studies attempt to assess the costs (and benefits) of displacement on the host population and the host state; typically these are ‘accounting exercises’ which attempt to calculate the direct costs incurred by states which host refugees. There is an absence of research literature assessing the impact of displacement on the country of origin and the stayee population.

In summary, despite the array of studies which purport to assess the impact and cost (and/or benefits) of displacement, currently lacking are systematic methodological frameworks to enable such measurement to be undertaken, which draw on a comprehensive and meaningful array of cost indicators and which incorporate the principal stakeholders. The literature review thus points to the urgency and the necessity of developing a methodological framework to assess the impacts of displacement at interconnected levels and across a range of interconnected actors.

### **Objectives, approach and scope of work**

With these considerations in mind and given the evident methodological gaps, the principal objective of this study has been to establish a systematic methodology which includes a comprehensive range of economic and social indicators, which covers a range of key stakeholders, and which lends itself to comparative analysis. Underlying the methodological approach adopted here, is the premise that it applies to mass displacement situations largely in the developing world.

To measure the complex array of the costs and the economic and social impacts of forced displacement, this study develops a methodology, tools and indicators to assess these phenomena. A mixed methods approach is proposed. The emphasis is on quantitative, mainly econometric, methods of measuring the impacts and costs of displacement, since this is where



the more significant methodological gaps clearly lie. This is complemented by qualitative methods which support and reinforce the quantitative methodology. The particular value of qualitative analysis lies in a) *assessing* variables that are less susceptible to quantitative and econometric analysis such as perceptions of security, the impacts of social change on livelihoods and political factors; and b) in *explaining* the incidence of the impacts and costs. The mixed methods approach is a significant innovation. Neither the econometric method nor this combination of quantitative and qualitative methods has been deployed to date in the rigorous and comprehensive way proposed here.

Four contexts for analysing the impacts and costs are considered:

- (i) refugees and IDPs;
- (ii) host population and state;
- (iii) area and country of origin; and,
- (iv) type of assistance provided to the displaced.

What is proposed is an ‘ideal type’ methodology, but not a ‘one size fits all’ strategy since no two situations of displacement are completely alike. The methodology is capable of adaptation to different settings according to data and resource constraints. Acknowledging the many statistical limitations of collecting reliable and rigorous time series data sets on costs and impacts which cover all the stakeholders – limitations which largely account for the currently fragmented ‘state of the art’ - the approach taken here has been inductively conceived. In other words, rather than start from the questions of what is feasible or what data are available, the objective governing the approach has been to take into account a range of variables that, normatively, might enable us to construct a meaningful measurement of impacts and costs. The approach adopted is to provide a general framework that can be modified and applied to different scenarios and available data. In this respect, the value of the methodology lies as much in identifying a standardised set of core phenomena by which to evaluate the costs and impacts of displacement across four sets of stakeholders, as it does in producing an aggregate ‘bottom line’ cost – which although technically possible is likely to produce very crude comparisons.

An important caveat is to note what the methodology does not do. It does not indicate how the choice of policies and programmes should be made – the political economy of decision making. Nevertheless, a precautionary note is needed on how the methodology

might be applied to shape policy responses based on empirical measurement of costs and impacts of displacement. Measuring these phenomena begs the question of whose perspective and priorities are represented in policy recommendations which may be made based on impact evaluations. The methodology does not, therefore, attempt to weigh different stakeholder interests in measurement, nor does it make explicit the value judgements that might subsequently inform policy decisions.

Irrespective of the type of methodology to assess costs and impacts and also how it is applied, empirically-informed policy responses aiming to maximise socio-economic outcomes for affected stakeholders must uphold international obligations for the protection of displaced people's rights and needs. At the same time, the approach must also adhere to complementary protection of human rights of displaced people and broader rights related to development which are upheld in relevant international conventions and covenants.

The study identifies researchable country cases for a second phase which could involve an in-depth analysis of selected country cases to test the methodology and draw operational lessons on cost-effective interventions and to recommend approaches for mitigating the negative impacts of displacement. Additional primary data collection may be required for this phase. However, the methodology assumes that most of the analysis will be conducted using existing data and recommends a selection of "ideal" case studies that have a minimum level of data available.

Finally, the outcome of a one-data-set pilot testing by FAFO and PRIO is reported.<sup>1</sup> Overall the pilot endorses the methodology, notably its value in indicating the types of challenges and methodological or conceptual adjustments required when costing forced displacement using existing data, how we conceptualise and measure costs, and how we might value them. It highlights the important interplay between monetary and non-monetary indicators. It advises on the problems of data collection and how these might be addressed in field testing – allowing different aspects of the methodology to be tested in different locations rather than a comprehensive approach in each case study.

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<sup>1</sup> Important caveats to note are that: the testing retrofitted existing data sets collected by other methods and for other purposes, rather than a field testing which is proposed for Phase II of the study. The survey data available for the pilot testing is somewhat limited.

## Structure of the report

The report is in three volumes.

This volume, Volume I comprises the main study which provides a conceptual model and the technical description of the methodological approach to measure the Impacts and Costs of Forced Displacement in the four different contexts. It is in three chapters. The first and main chapter presents the mixed methodology to study the costs and impacts of displacement comprising both quantitative and qualitative methodologies. This approach is considered most appropriate to the overall objectives of the project. A second chapter indicates the potential scope of Phase II of the study whilst the third chapter outlines the preliminary testing of the quantitative model.

Volume II, which is a Guideline for the Use of a Mixed Methods Methodology, operationalises and implements the methodology by providing a set of analytical tools and indicators to analyse and evaluate the economic impacts and cost of forced migration. Volume II is designed for a) users of the analytical methodology (humanitarian and development practitioners in governments as well as international bilateral and multilateral development institutions and NGOs), and b) users of the analytical results (policy makers in governments and in international bilateral and multilateral development institutions, as well as humanitarian actors).

Volume III provides the backcloth to the study. It comprises the State of the Art Literature Review which documents extant research literature on the economic, social, political and cultural costs and impacts of forced displacement.

# CHAPTER ONE: MEASURING THE ECONOMIC AND SOCIAL IMPACTS OF DISPLACEMENT

This chapter outlines a methodological framework to study the economic and social impacts of forced displacement on different contexts. The emphasis is on the quantifiable economic impact of displacement. However, alongside the largely econometric analysis, the methodological approach also incorporates qualitative methods to support and inform the estimation and the outcomes across the range of factors noted above. It is the explanatory capacity of qualitative methods and the focus on social and non-monetary impacts, such as protection and security, which add particular value to the metrics of the quantitative methodology. Qualitative methods also enhances the depth of analysis by elaborating the causes and consequences of impacts in different situations, and by more readily disaggregating the heterogeneous experiences of different social groups and the impacts of programme interventions. Moreover, these methods can also facilitate the exploration of impacts over time, especially given the significant gaps in base line and time series data related to population displacement on which quantitative methods rely.

The methodology developed and explained in this Volume is comprehensive and the analytical methods provide a ‘model’ approach to the challenge of measuring impacts and costs. However it is recognised that in most cases, it is unlikely that existing data will perfectly match the situations to be analysed in each of the different sections and that there will be data available to explore only some of the impacts of displacement and the topics to needed to provide a comprehensive analysis.

Yet, the lack of a complete set of indicators or the perfect data should not discourage researchers and humanitarian policy makers from exploring some of the impacts of displacement. Volume II, takes these constraints into account by operationalising the methodology with a reduced set of indicators and consideration of fewer conditions. Analysis of a particular case study will still yield important information on the impacts and costs of displacement and contributions by the displaced population. Given the importance of data for

the rest of the methodological discussion and given that data is likely to be a key limitation in most studies, the section below starts by providing a discussion of data issues.

## 1. Data needs and availability

Measuring the impact of violence-induced displacement is a challenging process for several reasons including, in particular, the extent to which adequate data are available. Whilst the proposed methodological approach seeks to address these and other difficulties, data challenges are unlikely to disappear. The methodology proposed in this volume is based on

The data needs and availability will be contingent on:

- the data that are already available
- the resources that may be available to collect new data
- the specific needs and objectives of the agencies involved; and
- the extent to which the agencies can share data and assessments of the impact and cost of displacement.

In terms of data availability, the methodology is comprehensive and thus has potentially data-rich requirements. It also explores indicators and topics which, although familiar to policy makers and humanitarian actors – for example individual or household incomes and livelihoods - require data that are not generally available in sufficient quantity or quality in most cases. It is also likely that in many cases, the data available permit only a partial exploration of the impacts of displacement.

Ideally, one would have pre-, during (including the increasingly prevalent phenomenon of protracted displacement) and post- displacement (ie after return or permanent resettlement in a new community) data on the displaced and non-displaced groups. This would facilitate the exploration of the impact of displacement overtime. However, it is likely that the data only provide information on the *pre-* and *during*-displacement situation or just the *during-* and *post*-displacement situation. In some cases, the displacement process is still ongoing, while in other cases the data may not exist. Moreover, even in the cases in which there is data on *pre-* and *post*-displacement factors, there may not be observations over a long period and, hence, it may not be possible to study long-term outcomes. It is likely that the data only exist for a few years after the displacement process. Nevertheless, it is still possible to obtain valuable information about the impact of displacement in these cases.

Given these constraints, the scope for choosing indicators will be determined by the quality and scope of extant data, or the resources on hand to collect new data to measure impacts and costs. The limitations of extant data and constraints of time and resources to collect new data, will almost certainly reduce the scope of the analysis proposed in the 'ideal' methodology.

Where extant data are used they will have been collected by different agencies for different purposes and over different time periods. This poses methodological problems in reconciling data sets and for these reasons, only approximate impacts and costs might be assessed.

These are significant caveats. Nevertheless, even where data are limited, or where a reduced set of indicators is used, or where consideration is given to fewer conditions affecting a particular case study, assessment will still yield important outcomes in terms of identifying where impacts and costs are most pronounced, and therefore some of the key issues for policy makers to address. At the same time these approximations will also point to where new data sets might be needed to yield more precise analysis. Therefore, the lack of a complete set of indicators should not stop those interested in exploring the impacts of displacement from doing so.

A key point is to map extant sources of data early on in the evaluation process in order to establish the potential utility of the data and critical gaps where new data will need to be collected.

The following table indicates the potential range of sources, methods and types of data availability that could be investigated as part of the preliminary mapping exercise.

The key data sources are likely to be:

- Governments – at both national and regional/local levels and urban authorities
- NGOs – humanitarian organisations delivering assistance programmes for forcibly displaced populations; and developmental NGOs supporting local (i.e. host) populations and populations in countries of origin
- International and Intergovernmental organisations in key humanitarian and developmental sectors, including Humanitarian Clusters and Cluster Leads

## 2. Measuring the Economic and Social Impacts of Displacement on the Displaced Population

### 2.1 Parameters and indicators

Table 1 reports as series of variables for which the impact of displacement could be explored. These variables are grouped in four broad categories: income related, employment related, asset related, poverty related and natural resources related. It is possible that the variables available in some instances, do not quite represent these outcomes, but may fit into one of the broad categories.

Some of these outcomes include factors that are measurable in monetary terms such as wages, income, value of real estate assets, value of livestock, value of agricultural equipment (e.g. tractors), value of other assets, consumption level and savings. Other outcomes may provide interesting insights about the economic impact of displacement even if not measurable in monetary terms. These include employment status, type of job, labour force participation status and number of hours worked. Some of these non-monetary variables also lend themselves to assessment using qualitative methods. Finally, Table 1 presents a series of poverty indicators. These indicators include poverty status and the poverty gap.

**Table 1 - List of possible economic outcomes to explore**

<i>Parameters</i>	<i>Income Related</i>	<i>Employment Related</i>	<i>Asset Related</i>	<i>Poverty Related</i>	<i>Access to Natural resources</i>
<b>Main indicators</b>	Income	<i>Wages</i>	<i>Real Estate Assets with title</i>	<i>Poverty Status National Level</i>	<i>Fuel wood</i>
	<i>Disposable Income</i>	<i>Employment Status</i>	<i>Real Estate Assets without title</i>	<i>Poverty Gap National Level</i>	<i>Building Materials</i>
	<i>Consumption Level</i>	<i>Type of Job</i>	<i>Livestock</i>	<i>Poverty Status International Level</i>	<i>Water</i>
	<i>Savings</i>	<i>Labour Force Participation</i>	<i>Agricultural Equipment</i>	<i>Poverty Gap International Level</i>	
		<i>Hours Worked</i>	<i>Other Assets</i>		

Note: Real Estate includes land property and housing

## 2.2 Interactions

It is likely that the economic impact of displacement is not the same for individuals with different characteristics. For example, the impact of displacement on income could be different for displaced men and displaced women. As such, it is useful to explore interactions between being displaced and certain individual characteristics. Gender, age, family size and composition, physical ability, educational levels, pre-displacement skills and assets and ethnic group are amongst the characteristics which may condition the extent to which different displaced populations and, members of the displaced population (i.e. men, women, children), cope in exile. Table 2 provides a list of possible interaction terms to explore in the estimation, although it is possible to expand the list to accommodate the specific features of the displacement event.

**Table 2- Possible interaction terms**

<i>Age</i>	<i>Education</i>
<i>Marital status</i>	<i>Disability status</i>
<i>Household status</i>	<i>Pre-displacement variables</i>
<i>Gender</i>	<i>Refugee/IDP status</i>
<i>Ethnicity</i>	<i>Time since displacement</i>
<i>Religion</i>	<i>Family composition</i>

Qualitative methods – household and attitudinal surveys via interview questionnaires and participant observation, for example - are particularly valuable in examining interactional variables discussed below. These methods can be used to elucidate intra-household dynamics and how the interplay between socio-economic, gender and demographic variables shapes survival and self-reliance and associated coping and livelihood strategies under conditions of displacement and at different phases of displacement.

## 2.3 Analytical tools

In order to analyse the impact of displaced on those who are displaced it is possible to estimate a regression in which the dependent variable is the economic outcome of interest for individuals in the sample (which is ideally composed of both displaced and non-displaced individuals) and the independent variables consist of a series of exogenous



characteristics and a dummy variable indicating displacement status. In its simplest form the regression equation is:

$$y_{it} = \alpha + x'_{it}\beta + \delta D_i + u_{it} \quad (1)$$

Where  $y_{it}$  is the economic outcome of interest for individual  $i$  at time  $t$ ,  $x_{it}$  is a vector of exogenous and observable control variables (it is possible to use those variables in Table 3),  $D_i$  is an indicator of displacement status (i.e. displaced = 1; otherwise = 0) and  $u_{it}$  is the error term.<sup>2</sup>

The indicator  $D_i$  may indicate different things in different situations. If the data provide information on *during*-displacement periods, then  $D_i$  indicates current displacement. On the other hand, if the data provide information on the *post*-displacement periods, then  $D_i$  could indicate displacement at some point in the past. It is possible to have different combinations of these two. Notice also that there is no time subscript for  $D_i$  suggesting that this is a time-invariant indicator. In some situations it would be advisable to change this assumption.

The coefficient  $\delta$  provides information on the impact of displacement on the economic outcome of interest. It is common to include the monetary economic outcomes in natural logarithms in the estimation. The interpretation of  $\delta$  in that case is ‘the percentage change in the economic outcome (e.g. wages) for being in displacement (either presently or in the past)’. It is also common to use a probit or a logit model to estimate the impact on those indicators in which the dependent variable is a dummy.<sup>3</sup> In this case, the estimation provides information on the impact of displacement on the probability of a certain event (e.g. being unemployed).

There are several statistical difficulties related to estimating (1) in the context of displacement. The discussion below reviews some of these difficulties and provides options to deal with potential problems. However, it is not possible to provide an

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<sup>2</sup> The error term captures all other factors that influence the dependent variable ( $y_{it}$ ) other than the regressors.

<sup>3</sup> The probit and logit models are both used to model dichotomous or binary outcome variables (i.e. cases in which there are only two possible outcomes, typically expressed as 1 and 0). The probit model assumes a normal distribution, while the logit model assumes a log distribution of the data. Results are often similar with a large sample, but may differ with smaller samples.

exhaustive list of possible challenges, as these will change with datasets and displacement situations.

## 2.4 Important considerations for the estimation

### 2.4.1 Previous differences between the displaced and the non-displaced

It is important to explore if those who are displaced are different from those who are not displaced as regards previous characteristics that may make them more (or less) successful in terms of future economic outcomes. If that is the case, then the estimated impact of displacement could simply reflect previous differences between individuals and not the actual impact of displacement.

The simplest way to test for *pre*-displacement differences is to conduct a regression in which the dependent variable is the *pre*-displacement outcome of interest ( $y_{pre_{it}}$ ) and the independent variables control for *pre*-displacement individual characteristics ( $x_{pre_{it}}$ ) and a dummy indicating future displacement status. The regression equation is:

$$y_{pre_{it}} = \alpha + x_{pre_{it}}\beta + \delta D_i + u_{it} \quad (2)$$

If there is no connection between displacement and the *pre*-displacement outcome of interest, the coefficient  $\delta$  should not be significantly different from zero.

If there are no reliable pre-conflict data, it is possible to use government reports or other sources of information which corroborate the non-systematic nature of the displacement with regards to factors that may affect future economic outcomes.<sup>4,5</sup> Qualitative research can be also very useful in determining the nature of displacement.

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<sup>4</sup>Even without reliable individual-level data, there may still be macro-level data available, with which one can show that the displaced population is not a random sample from the larger population. For example, specific ethnic groups could be over- or underrepresented.

<sup>5</sup>The existing literature suggests that in some conflicts in which the objective is territorial acquisition there is no a priori difference between the displaced and non-displaced groups. For example, Sarvimäki et al. (2009) argue that this was the case in the displacement which resulted after Finland ceded a portion of its territory to the Soviet Union after World War II and resettled the population living in that area in other part of the country. Fiala (2009) argues that in the context of displacement arising in Northern Uganda, the Ugandan military decided in many cases whom to displace without considering economic factors.

Yet, it is very likely that in cases in which there is the option of staying in the home community (even with the increased risk of violence), individuals who choose to move have different characteristics from those who choose to stay. It is possible to control for many of these characteristics in the estimation, but it is very likely that some of these characteristics are unobserved (e.g. entrepreneurial attitude). This will lead to bias estimates of the impact of displacement (downward or upward depending on the specific situation).

A possible solution is to use an “instrument” for displacement. A good instrument relates strongly with the instrumented variable, but not with the dependent variable. Therefore, the key is to find a variable that relates strongly with displacement, but not with the economic outcome of interest. Kondylis (2010) suggests that a possible instrument for displacement could be the level of violence in the region of residence before displacement. Possible proxies for the level of violence include the number of casualties, confrontations or raids, among others. If there is no relationship between the levels of violence and economic factors, then this is likely to be a good instrument, as the level of violence suffered should relate to the probability of displacement. However, in order to verify the potential for violence to be a good instrument it is important to look at the nature of the conflict. It is necessary to show that the intensity of the conflict that led to displacement in different regions of the country does not depend on specific factors that may affect the future economic outcomes of the displaced individuals. If there was a systematic targeting of those areas with lower (or greater) wealth levels, the after-displacement differences between the displaced and non-displaced may be due to differences in characteristics between the two groups and not on displacement status.

The simplest way to test for the separation of violence from pre-displacement economic characteristics is to conduct a regression in which the dependent variable is the level of violence experienced by the individual ( $vio_{it}$ ) and the independent variables control for pre-displacement individual characteristics ( $xpre_{it}$ ) and the pre-displacement economic outcome of interest ( $ypre_{it}$ ). The regression equation is:

$$vio_{it} = \alpha + xpre'_{it}\beta + \theta ypre_{it} + u_{it} \quad (3)$$

If there is no connection between violence and the pre-displacement economic outcome of interest, the coefficient  $\theta$  should not be statistically significant. In the absence of quantitative pre-displacement data, it is possible to use other sources of information such as a government or NGO reports that provide details of the nature of the conflict.<sup>6</sup>

### 2.4.2 Dealing with assets

There are several ways of thinking about the nature of assets. For instance, it is possible to focus only on the existence of an asset. However, the existence of an asset does not provide information about the quality of the asset. This creates a difficulty because asset quality can have important consequences. For example, there could be a great quality difference between two animals of the same species.

A possible way of capturing asset quality is to use the value of the assets. Yet, the valuation of assets (e.g. livestock, agricultural equipment and others) may differ across the displaced and non-displaced groups. This difference in valuation may come from two sources. First, two assets of the same quality may be valued differently because the displaced (or non-displaced) group has a tendency to overstate or understate the true value of the asset. Second, the most common way to assign values to assets is to establish how much money an individual could receive from selling the asset. Therefore, the question depends on access to markets for these assets and this access may differ significantly for the displaced and non-displaced groups (and within these groups). One way of addressing this issue is to look for two assets which are comparable in general and verify that the valuations do not differ systematically between the displaced and non-displaced groups (Fiala, 2009). There will be a bias in the estimated impact of displacement on assets if there are systematic differences in the valuation of the assets.

On the other hand, the change in the value of assets as a result of displacement because of reduced (or increased) access to markets is one of the consequences of

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<sup>6</sup>The research literature suggests that even in some cases in which the conflict relates to ethnic cleansing, if there is no targeting of individuals based on economic differences, it is possible to argue that the level of violence is not related with unobserved characteristics that may also affect future economic outcomes. Kondylis (2010) argues, for instance, that this is the case for Bosnians in pre-war Bosnia and Herzegovina. In another paper, Kondylis (2008) suggests that this is also the case for the 1994 Rwandan conflict given that the genocide perpetrators targeted all Tutsis. On the other hand, Ibañez and Velez (2007) argue that this is not the case in Colombia.

displacement that could be explored in detail. This would imply an exploration of how much access the displaced and non-displaced have to markets as well as the role of asset retention or disposal in relation to household livelihood strategies, an area where qualitative methods such as interviews, participant observation and focus groups could inform the analysis in detail.

It is also possible to use qualitative methods to explore in detail the extent to which there was a need to sell undervalued assets. In certain cases, assets could regain most of the pre-displacement value after the displacement process was over. However, the precarious displacement situation may force the sale of assets at much lower value which may have very serious welfare effects.

In the case of real estate assets, it is important to make a distinction between those cases in which the individual holds a title and those in which s/he does not. Holding a title may facilitate a claim over the asset at a later point even if the individual is away from the home community for a long period.

#### **2.4.3 When displacement affects everyone in a certain area**

In the discussion above, the control group is composed of those that stayed behind (i.e. non-displaced or stayers). Yet, in some cases displacement affects everyone in a certain area. In such cases, it is possible to use as a comparison group, individuals in a different violence-affected region, in which there was no displacement. It remains important, however, for both communities to have faced somewhat similar levels of violence and, if possible, to have an exogenous reason for which there was no displacement in one of the communities. If two communities experienced similar levels of violence, but in one community there was no major movement of people whilst in the second community, there was a large displacement and if that displacement was voluntary, then the communities could be inherently different and not comparable. If there was an exogenous reason for displacement (e.g. geographical), then the communities could be comparable. Qualitative analysis can play a significant role in determining if the level of violence and

the perception of danger in the two areas were similar. Geographic distance may play a key role in creating a control group in this situation.<sup>7</sup>

If it is not possible to have a counter-factual group, looking at differences between displaced groups can result in valuable information about the factors which increase the overall cost of displacement. It is also possible to focus on differences within displaced groups if the data are just limited to a specific group. For instance, it is possible to analyze the impact of participation on a certain program at two different levels for a displaced group and compare outcomes. It is also possible to separate the displaced group according to certain characteristics such as religion or ethnicity.

#### 2.4.4 Urban settlement and camps

Increasingly, migration to, and self-settlement in urban locations is the prevailing destination of displaced refugees and IDPs populations (and Zetter and Deikun 2010:6). There are several ways of emphasizing the impact of displacement on an urban destination versus a rural destination. One way is to emphasize those indicators which are better fitted to provide insights in the urban context. Among others, it is possible to think about labour market indicators such as wages and types of jobs, where the differentiation in urban areas could be bigger. Urban areas also tend to have deficits in the supply of land, housing and infrastructure. Therefore, the impact in regards to changes in the holding of assets (especially real estate assets) could provide another insightful comparison.

The second way of highlighting the impact of living in an urban area is to include this fact in the estimation. In order to test for the differences in outcomes between those that have an urban area as a destination versus those that have other destinations it is possible to include a dummy variable indicating urban area status ( $U$ ). It is possible to estimate something like:

$$y_{it} = \alpha + x'_{it}\beta + \varphi U_i + u_{it} \quad (4)$$

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<sup>7</sup>Fiala (2009), for instance, uses as a control group those households that were close to the 'line of displacement' in Northern Uganda. That is, those households that did not experience displacement, but that were living close to the areas from which the Ugandan military was displacing all households. Sarvimäki et al. (2009) conduct some of the estimations using as a control group only those individuals that lived close to the line of displacement in Finland, before displacement took place.

If there is a reason to believe that urban/rural status relates to unobserved characteristics that may also affect outcomes it would be necessary to conduct an instrumental variable estimation as the ones explained above.

Although the majority of refugees now live in urban areas we know little about the motivations, the experience and the impacts of this locational preference. Thus qualitative methods provide important tools for exploring these characteristics and for assessing the economic and livelihood strategies of urban refugee and IDP populations. Despite the difficulties in locating displaced populations in urban impacts – since they tend to be self-settled and widely dispersed – qualitative methods such as household surveys and semi-structured interviews offer valuable tools to determine how social variables might condition urban settlement preferences and mobility patterns of IDPs and refugees. In turn this understanding will provide considerable insight into how the survival and livelihood strategies of people displaced to urban locations are determined by critical factors such as access to employment, land and housing, and perceptions of security.

In other cases the destination of the displaced is a camp. Exploring the differences in outcomes between those refugees that have a camp as a destination and those that have other destinations is relatively similar to exploring the outcomes of those that have an urban area as a destination (i.e. include a dummy variable indicating camp status).

Yet, in many situations there is only information about those individuals who are in camps. It is still possible to compare across individuals in different camps according to camp characteristics in these cases. Table 3 contains a list of potential characteristics of camp settings to explore.<sup>8</sup> Qualitative methods are valuable in assessing the economic impacts on encamped populations - in terms of the characteristics listed in Table 4. In this context, qualitative methods, such household questionnaire surveys, will help to determine how social factors such as ethnic, kinship and extended family variables

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<sup>8</sup>In order for the estimation to work the characteristics of the households should not determine camp selection. There is evidence that this has been the case in previous displacement episodes. As previously mentioned, Lehrer (2010) reports that the general perception in Northern Uganda was that relocation to a camp was a short-term solution. As such, individuals relocated to the nearest camp. At the same time, camp formation resulted from the intensity of a conflict that was generally random.

condition the experience of encamped populations and the livelihood strategies they adopt in camps, including responses to income generating projects by humanitarian agencies. Qualitative methods will also help to elucidate perceptions of security – an important determinant of settlement preferences – as well as the mobility patterns of IDPs and refugees in and out of camps.

**Table 3 - Camp situation/characteristics to explore**

<i>Nature of the camp</i>	<i>Freedom of movement</i>	<i>Rights</i>
<i>How long it has been in existence</i>	<i>Closed camp</i>	<i>Right of refugees to work in camp</i>
<i>Self-settled camp</i>	<i>Open camp</i>	<i>Right of refugees to work outside of camp</i>
<i>Government-designated camp</i>		<i>Right to property ownership</i>
<i>Size</i>		<i>Right to establish a small business</i>
<i>Population density</i>		
<i>Distance from conflict border</i>		
<i>Ethnic differences with local pop.</i>		
<i>Availability of natural resources</i>		
<i>Connectedness to markets</i>		

#### **2.4.5 Displacement patterns and processes – qualitative measures**

In relation to the differential patterns and processes of displacement discussed above – self-selection into displacement - qualitative analysis can help to refine the accuracy of the variables and enrich an understanding of the type and nature of the displacement characteristics. Of the methods available, oral histories, testimonies and different forms of individual and household/community questionnaires can be particularly valuable in revealing and accounting for:

- the motivations for flight in the context of violence and other factors such as livelihood strategies
- why and how the form, level and geography of violence impelled displacement and its timing; the phases and stages of displacement, in other words displacement ‘routes’
- the ‘demographics’ of the displacement process (different groups in flight - gender, individual or household or collective)
- how and the extent to which destinations were chosen; and the patterns and reasons for subsequent mobility between different displacement settings.



Documentary sources available from humanitarian agencies and host governments will shed further light on the choice of destinations, the location of camps and the extent to which government policies on self-settlement and urban settlement mediate the choice of destination by displaced populations.

## 2.5 Other social factors

The impact of displacement is not limited to the mostly economic outcomes discussed above. Table 4 provides a list of some other factors, related to individuals' (or households') wellbeing, that displacement could affect. Other possible impacts of displacement include a change in the level of security, the adoption coping mechanisms and the increased exposure to income shocks that may affect consumption. Most of these factors have economic related implications, but also have broader consequences than income, wealth or working conditions. Therefore, instead of having an economic/non-economic split, the outcomes and impacts that have strong social implications in addition to potentially having an economic impact on individuals are presented separately. Qualitative analysis is an essential tool to provide insights and understanding of many of these non-monetary variables and socio-economic impacts. The next sub-sections provide options to estimate some of these impacts.

**Table 4- Other outcomes which displacement may affect**

<b><i>Risk Related</i></b>	<b><i>Coping Mechanisms</i></b>	<b><i>Others</i></b>
<i>Security level</i>	<i>Child labour</i>	<i>Psychological health</i>
<i>Perception of security</i>	<i>Early marriage</i>	<i>Political rights</i>
<i>Exposure to income shocks</i>	<i>Education interruption</i>	<i>Social change</i>
<i>Consumption disruptions</i>	<i>Prostitution</i>	
	<i>Transactional sex</i>	
	<i>Other culturally-unacceptable activities</i> <i>(e.g. divorce, substance abuse).</i>	
	<i>Criminal activities</i>	
	<i>Household separation</i>	
	<i>Selling food rations</i>	
	<i>Shelter creation</i>	
	<i>Reducing meals</i>	
	<i>Experiencing hunger</i>	
	<i>Learning new languages</i>	
	<i>Learning a new skill</i>	
	<i>Secondary migration</i>	
	<i>Changing gender roles</i>	

### 2.5.1. Risk related

Households may experience a decrease or increase in security because of displacement. Yet protection and human security are amongst the most fundamental pre-requisites for the survival, dignity and socio-economic wellbeing of displaced people. Food insecurity, sexual and gender-based violence (SGBV), fear of repatriation, targeted violence perpetrated by host populations, are some of the varied facets of this phenomenon – and the substantial limitations in provision - which condition the lives of displaced people. In order to estimate the impact of displacement on perceived security it is possible to estimate:

$$s_{it} = \alpha + x'_{it}\beta + \delta D_i + u_{it} \quad (5)$$

$s_{it}$  is a measure of the security level,  $x_{it}$  a set of control variables and  $D_i$  is the displacement indicator. The coefficient  $\delta$  provides information on the impact of displacement on security levels.

The information provided by (5) is very valuable in providing insights about the impact of displacement (i.e. direction and significance) on perceived security. However, the interpretation of the information provided by  $\delta$  in (5) may not be straightforward (i.e. size of the coefficient). The significance and sign of the coefficient provides information, but not the fact that the coefficient is equal to a certain value. It is possible to go a step forward and approximate the value of this change in security in monetary terms. One possible way of doing this is using the compensating variation concept.

Ibañez and Velez (2008) proposed the use of compensating variation as a way to account for losses from displacement, which are not explicitly defined in monetary terms. In this case, compensating variation refers to the amount of money that is necessary for the individual to be indifferent between two locations. For instance, it is possible to estimate compensating variation as the willingness to accept (pay or give up) a given amount of money in exchange for an increase (decrease) in the exposure to violence. Using the compensating variation concept, it would be possible to estimate a money amount value for differences in security across regions.

### 2.5.2 Consumption smoothing

Consumption smoothing refers to an individual balancing out spending and saving over time to attain and maintain the highest possible living standard over his/her lifetime. One way to protect consumption levels is to borrow money at some times and use insurance mechanisms to deal with unanticipated shocks. Displacement may affect the typical mechanisms used for consumption smoothing such as selling assets, using savings, accessing formal or informal credit markets and formal or informal risk-sharing mechanisms (Ibañez and Moya, 2010). Any limitations to receiving and sending remittances that may result from the displacement process will impose a further disruption of the consumption smoothing strategies.

In order to test the impact of displacement on consumption smoothing it is possible to estimate:

$$\Delta G_i = \tau \Delta T_i + \rho \Delta P_i + x_i' \beta + u_i \quad (6)$$

Where  $\Delta G_i$  is the change in consumption between period  $t$  and  $t + 1$ , where at least,  $t + 1$  is after displacement ( $t$  could be a pre-displacement observation),  $\Delta T_i$  is the change in transitory income,  $\Delta P_i$  is the change in permanent income and  $x_i$  are other household characteristics. Transitory income could be proxied by a variable such as labour income, while permanent income could be proxied with the value of assets (Ibañez and Moya, 2010). If it is not possible to reject the hypothesis  $\tau = 0$ , the evidence suggests that fluctuations in transitory income do not affect consumption paths and there is evidence of consumption smoothing. If  $\tau > 0$ , there is no complete consumption smoothing. It is possible to estimate (6) for displaced households and for those that are not and compare the coefficient estimates. Another possibility is to include a displacement dummy in the estimation and an interaction between this dummy and the transitory income variable.

### 2.5.3 Coping mechanisms

Coping mechanisms are the ways in which individuals deal with difficult situations. In economic terms, it refers to the ways in which individuals deal with a decrease in income. Often the displaced population needs to recur to coping mechanisms that have short-term as well as long-term consequences. These mechanisms include child labour, transactional sex, early marriages, education interruptions, household separation and reducing meals.

Other coping mechanisms such as shelter creation (self-build shelter is the main process of shelter creation by refugees) imply a shadow cost of labour and therefore an opportunity cost. However, some coping mechanisms may have potential benefits in the future, including learning a new language and learning a new skill.

In most of these cases, the variable of interest (dependent variable) is a dummy variable (binary response model), indicating that the individual has adopted the strategy and it is possible to estimate a probit model such as:

$$p_i(\text{strategy adoption}) = f(\delta D_i, x_i' \beta) \quad (7)$$

Therefore, it is possible to observe if displaced individuals have a higher tendency to adopt certain strategies, compared to the non-displaced individuals (*ceteris paribus*). If the data allows, it is possible to compare the adoption of coping strategies over the short-term and long-term.

Beyond the assessing econometric impacts, qualitative methods facilitate a fuller explanation of the livelihood and coping strategies that displaced individuals and households adopt. Household surveys, in-depth interviews, participant observation and project and programme evaluations by humanitarian agencies are the orthodox qualitative methods deployed to explore these strategies. These methods will inform an understanding:

- of the rationale for the livelihood and coping strategies
- how the changing dynamics of displacement shape the experience and responses of the displaced
- strategies adopted in different locations (e.g. closed or open camps or urban settlement)
- strategies in different phases of displacement

At the same time, these methods can also help to explain, as well as measure:

- how and why different forms of employment are accessed
- how and why labour market participation (e.g. gender roles, long and short term household needs, perceptions of security) varies through time

- the role of the informal economy in supporting livelihoods
- how and why households trade off different assets and locations in their survival and livelihood strategies.

There is compelling evidence, highlighted in the literature review (see Volume II of this study), that displacement produces dramatic social change. Changing gender roles, age-related responsibilities and expectations complement changes in the structure and function of social networks, the agency of displaced people, their social empowerment and new forms of leadership and power structures. Social mobility, changes in cultural identity as well as societal loss and resilience are amongst other significant aspects of societal change. These changes profoundly condition how displaced people negotiate and respond to the challenges of displacement at different phases, the livelihood and coping strategies that they adopt and the differential impacts and costs of displacement they experience. Qualitative analysis will help to provide a nuanced understanding and explanation of how displacement impacts and mediates these processes of social change and how, in turn, these social changes condition economic outcomes.

### **3. Measuring the Economic and Social Impacts of Displacement on the Host Population and Host Country**

This second part of the chapter presents a mixed methods approach to examine the impact of displacement on host populations and, as an extension, the host country. Again, quantitative methods are supported by qualitative methods, but it is important to emphasize the recurring gap in quantitative methods.

This part of the methodology is significant in order to measure the burden which displaced populations may exert on host communities. It is usually contended that, despite assistance programmes, displaced populations burden local communities in various ways, for example by: placing additional demands on ill-equipped welfare and public services (notably health, education and water supply); increasing demand for food and other commodities which consequently destabilize local markets and force up prices for hosts; commanding lower wage rates which potentially enable the displaced to crowd out local labour markets. To the extent that these outcomes occur, they reinforce host governments' resistance to accommodating refugee and other displaced populations. Whilst intuitively these negative effects might be assumed, the lack of a rigorous methodology has prevented an objective assessment of the 'winners' and 'losers'. The methodology proposed here responds to these assertions by measuring some of these impacts and by isolating the 'displacement' impacts from wider changes in the economy.

The discussion in this part of the chapter refers frequently to the impact of refugees on the outcomes of the 'local population' (e.g. locals' unemployment rate). The composition of the 'local' group may change from situation to situation. In some cases, 'locals' could refer to the resident population that may include previous refugees and other previous immigrants. In other cases, 'locals' may just refer to native-born individuals or long-time residents of the host community. The nature of the data available and the specific contexts of the displacement situation will determine the composition of the 'locals' group.

This section discusses first impacts in the receiving community as a whole and then makes a distinction of impacts across members of the receiving communities (i.e. winners and losers).

## 3.1 Aggregate level impacts

### 3.1.1 Parameters and indicators

The methodology explained in this section discusses how to find a comparison case for a population affected by displacement in order to explore the actual impact of the presence of refugees. The methodology is applicable to many factors such as the economic, health and educational outcomes listed in Table 5 but it is not limited to these factors.

## 3.2 Analytical tools

In order to estimate the impact of displacement on the host population it is possible to compare certain key indicators for the host population before and after displacement occurred. For instance, it is possible to compare the pre- and post-displacement unemployment ( $U$ ) rate of local workers in a certain location ( $D$ ). In this case the comparison is:

$$(U_{D,post} - U_{D,pre}) \quad (9)$$

However, it is possible that many other things have also occurred between those two periods and that these other factors are responsible for a significant portion of the change in the unemployment rate during the period. For instance, imagine a hypothetical situation in which the pre-displacement data is for 2006 and the post-displacement data is for 2009. In the empirical exercise, the researcher compares unemployment rates for those two years and attributes any difference to the presence of the displaced population in the host location. A comparison of the two periods would wrongly attribute all the impact of the global financial crisis on the local economy to the displaced population.

To analyze such a relationship, one needs to compare the labour market outcomes with an exogenous shock in the number of displaced individuals, and without the shock. However, it is not possible to observe the latter case. Another possibility is to use a difference-in-difference estimator. In this case, the comparison is with another location (N) that, overall, was similar during the pre-displacement period, but which was not affected by the displacement shock. The new comparison is:

$$(U_{D,post} - U_{D,pre}) - (U_{N,post} - U_{N,pre}) \tag{9}$$

**Table 5 - List of possible outcomes for which the methodology could be applied**

Parameters	Economic Outcomes	Health Outcomes	Educational Outcomes	Security
<b>Main indicators</b>	<u>Labour Market</u>	<u>Children</u>	<u>Children</u>	<u>Crime</u>
	Wages	Height for age	School attainment	Crime rates
	Employment status	Weight for height	<u>General</u>	Homicides
	Type of job	Infant mortality	Literacy rates	Thefts
	Labour force participation	<u>Diseases</u>	Educational attainment	Other violent incidents
	Hours worked	Diarrhoea prevalence		Prostitution
	<u>Prices</u>	Fever prevalence		<u>Human Security</u>
	Food	Acute respiratory infections		Sex trade rates
	Services	Malaria prevalence		Domestic violence rates
	Houses	HIV Rates		Perceptions of security
	Rents	<u>Others</u>		
	Land	General nutrition		
	<u>Others</u>	Mental health		
	Income	Maternal health		
	Consumption level			
	Real Estate Assets: with title			
	Real Estate Assets: without title			
Livestock				
Savings				



Hence, it is important to emphasize the difference in location (i.e. affected and not-affected by displacement) and the difference in time periods (i.e. pre-displacement and post displacement). This idea can be expressed in a regression framework for individual level data, using a time indicator ( $\tau_t$ ) and a location indicator ( $\delta_i$ ). The regression equation is:

$$y_{it} = \alpha + \mu_1 \delta_i + \mu_2 \tau_t + \theta(\tau_t * \delta_i) + x'_{it} \beta + u_{it} \quad (10)$$

Where  $y_{it}$  is the outcome of interest (e.g. employment status) for individual  $i$ , at time  $t$ ,  $\delta_i$  indicates if the individual is in a location that experienced the displacement shock,  $\tau_t$  indicates the periods after the displacement shock,  $x_{it}$  are a series of control variables and  $u_{it}$  is the error term. The coefficient of interest is  $\theta$  as it provides information over time on the location(s) that experienced the displacement shock.

### 3.3 Important considerations for the estimation

#### 3.3.1 An exogenous displacement shock

It would be convenient in terms of the estimation if the displacement shock (the arrival of a displaced group or sudden increase in the displaced population) is exogenous to the variable of interest. For instance, if the specific outcome of interest is the impact of displacement on wages of locals, there should be not a causal relation of wages in the host location to displacement.

It is possible to argue that many displacement situations (certainly not all), have a strong ‘push’ component (e.g. violence) that is the key reason for displacement, overriding other considerations such as economic ones.<sup>9</sup> However, it remains important to explore this fact in every specific situation. Qualitative methods such as household and individual interviews or focus groups can help to ascertain in more detail, the factors which drive the exogenous displacement shocks.

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<sup>9</sup>For example, it is argued that the timing and level of displacement from Burundi and Rwanda to Tanzania in 1993 and 1994 were largely unexpected at the time and driven by events in these countries (Baez, 2010; Maystadt and Verwimp, 2010). Escaping the civil conflict was the main reason for moving to Tanzania, a fact unrelated to the specific circumstances (e.g. economic conditions) of Tanzania at the time.

### 3.3.2. The host location

The estimation suggested in (10) relies on having at least two locations which are similar but one which received a group of refugees and another which did not. The main assumption of the difference-in-difference estimator is that conditional on the controlled characteristics, the indicators for both locations would have followed parallel paths over time. Hence, it is important to verify that the locations were similar in pre-displacement general characteristics. These include similarities in the main outcomes of interest of individuals in both locations. If the data allow (i.e. more than one observation before displacement) it is also possible to compare pre-displacement trends on key variables in the two locations.

However, in cases in which refugees are not specifically allocated to a location, and if locations are similar in characteristics (that is, no differences in any relevant aspects including accessibility), they are likely to attract a similar number of refugees as there is little incentive to select one location over another. It is likely that those areas receiving refugees are not very similar to those not receiving refugees and this may have further implications for the estimation. For instance, if poorer areas are the ones with high refugee intensity, the comparison of locations that experienced the refugee shock with locations that did not, may just reflect unobservable disadvantages of the poorer regions. Therefore, it is necessary to have some exogenous factor that affects the location of refugees. Again, qualitative methods provide a valuable way of exploring the extent of variation between reception and non-reception locations: government and other surveys may provide data from which variations in conditions between different administrative districts can be extrapolated.<sup>10</sup>

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<sup>10</sup>In many developed countries (e.g. UK and Sweden), asylum seekers in need of accommodation are allocated to specific locations, without much consideration of their specific characteristics (Bell et al., 2010; Edin et al., 2010). Previous evidence suggests that the same argument could be made for some situations in which refugees are located in camps. For instance, Maystadt and Verwimp (2010) argue that the location of refugee camps in Tanzania was random in regards to the economic characteristics of close-by villages. They indicate that given that the refugee inflow was massive and unexpected, cost was the main factor taken into account to decide the location of camps and there was no strategic matching process with certain community characteristics.

### 3.3.3 Finding comparable locations and dealing with the lack of data

As explained above, there is a need for a random selection of the location of refugees in regards to the outcomes of interest. Moreover, often there is lack of precise figures on the number of refugees in each location, making the distinction between locations with high and low refugee intensity very difficult. One possibility to overcome these two difficulties that may work for some events is to rely on cases in which the characteristics of one location make it more difficult for refugees to reach that location. These characteristics may include geographical barriers (Baez, 2011) or specific policies enforced by the state, such as designating particular areas as ‘refugee reception zones’ beyond which refugees cannot move.<sup>11</sup>

Figure 1 provides a simplified example of such a case. The colour red indicates a high proportion of refugees, while white indicate no refugees. Region **A** is close to the region of conflict, therefore, receives many refugees. Meanwhile there is a barrier (the bold black line in the middle of the figure) that dissuades refugees from going to region **B**. If the blue locations are, overall, similar to the green locations in pre-displacement shock characteristics, it is possible to use the information on the barrier to estimate the impact of refugees even if there is no perfect information on the number of refugees in each location.

The regression equation is something like:

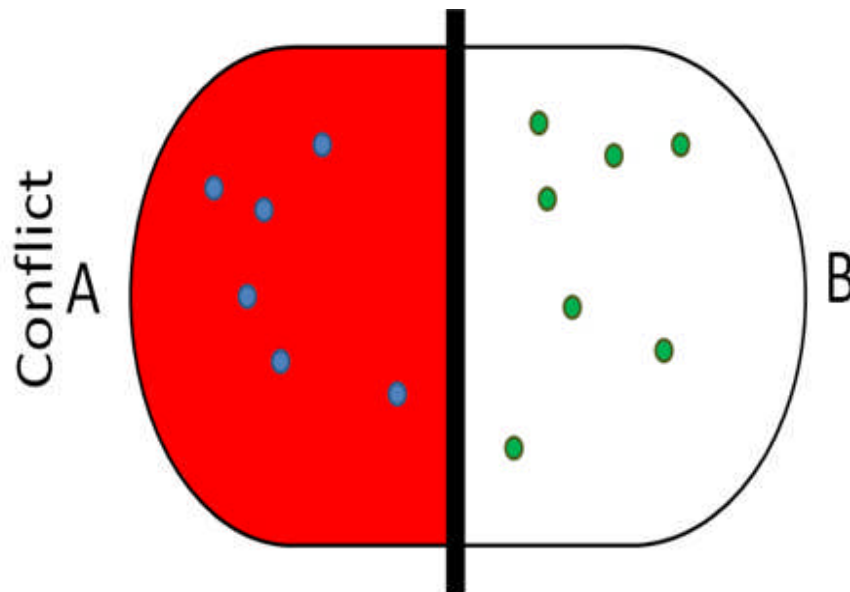
$$y_{itr} = \alpha + \mu_1 \sigma_i + \mu_2 \tau_t + \mu_3 D_r + \theta(\tau_t * D_r) + x'_{itr} \beta + u_{itr} \quad (11)$$

Where  $y_{itr}$  is the outcome of interest for individual  $i$ , at time  $t$ , in region  $r$ ,  $\sigma_i$  is a location fixed effect,  $\tau_t$  indicates the period,  $D_r$  is an indicator variable that is equal to one if there are refugees in that region (i.e. equal to one if the region is accessible for refugees and zero if not),  $x_{itr}$  are a series of control variables and  $u_{itr}$  is the error term.

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<sup>11</sup> For example, Baez (2011) provides a case in which natural topographic barriers (chains of mountains, swamps, lakes, large forest and game reserves) in Tanzania limit the number of refugees from Burundi and Rwanda in certain regions. For instance, there was a high intensity of refugees in the western part of the Kagera region (which borders Rwanda and Burundi), but not in the eastern part, that was separated from the western part by a series of geographic barriers. However, pre-1993 (the year of the Burundi displacement) there were no major differences between the key indicators of individuals in both regions.

**Figure 1 - Location of refugees resulting from a barrier**



In practice, it is likely that some refugees will be able to cross the barrier and locate on region **B** of Figure 1. Therefore, it is possible to have a situation in which there is a displaced population in both regions but the intensity (i.e. number of refugees) is significantly different. In that case, it is possible to compare locations with high refugee intensity to locations with low refugee intensity. Qualitative analysis, for example government and humanitarian agency population estimates, as well as examination of government settlement/encampment policies (e.g. camp locations, resettlement of refugees, restrictions on mobility) can be of assistance in exploring and verifying the difference in refugee intensity between two regions.

Another possibility is to use the distance of the locations from the border of the home country (or region) of the refugees. It is expected that the greater the distance between the two locations (everything else constant), the smaller the flow of refugees. This should especially be the case in areas with poor roads and transportation systems.

### **3.3.4 Responses of host populations**

Another potential difficulty is that the arrival of a displaced group to a certain location may result in an outflow of locals. The ones leaving are unlikely to be equal to those

staying. If, for instance, refugees have a greater effect on the wages of low skilled local workers and these decide to leave, the estimation may not reflect any impact of refugees on wages even if that would potentially have been the case. That is, only those more equipped to deal with the refugee shock (or that could even potentially gain from the shock) would stay.

On the other hand, it is possible that the new business opportunities created by refugees attract local entrepreneurs. The relatively higher salaries offered by international organizations may also incentivise locals with more human capital to migrate to the refugee-affected area. It is even possible that locals move in the hope of accessing aid and humanitarian programmes in refugee-hosting areas. In all these cases, the population compared across time is not the same. Therefore, it is important to explore if there is a significant out-migration or in-migration of locals in response to the displacement shock. There is large literature on the migration of locals in response to an influx of migrants (see Card, 2001).

If the results shows that there is a high level of migration of locals in response to the refugee influx, then it is necessary to explore the direction of the bias and identify in which way this fact affects the results. It is possible, for instance, for the migration of locals to have important and different implications for certain subgroups of locals (e.g. low skill, agricultural workers, etc.), but not for others.

Qualitative methods are significant in determining the impacts of displacement on and responses of host populations. Questionnaire surveys of individuals, households, government officials, local traders and business representatives can help to elucidate, *inter alia*, impacts on local employment conditions, the pressure on local resources, changing market prices for goods and services, the development of new forms of economic activity or substitution effects, and the impacts on social infrastructure (e.g. schools, hospitals). These methods also help to assess the extent to which different sectors of the local economy are stimulated or dampened both by overall increases in economic activity, and also by the intervention of humanitarian and development agencies.

Impacts on host populations vary significantly through time as local economies adapt, positively and negatively to the ‘shock’ of refugees. Assistance programmes mediate these economic impacts and they may compensate for example by providing shared services to the host as well as the displaced population. Time series data required for quantitative analysis of these changing impacts on the host population are unlikely to be available. However, qualitative methods using various types of interview surveys, oral histories, and secondary data from project and programme evaluations of humanitarian agencies and government agencies (e.g. education or health ministries) can help to analyze and shape an understanding of the impacts on the host population economy, their health and wellbeing and the extent to which their vulnerability has increased or decreased through time. These methods may also highlight the extent to which host populations and host government policies (for example in relation to status determination, settlement and employment rights) may mediate the impact of displaced populations on the host communities. For instance surveys of social attitudes and perceptions can reveal the presence and extent of xenophobia and discrimination towards the displaced populations which will have impact effects by, for example, restricting access to certain kinds of employment or housing markets.

Qualitative methods used to measure these impacts invariably focus on rural populations, agrarian and nomadic livelihoods and common property resources. But this over-reductionist approach to analysis of rural impacts should not detract from their utility in exploring where and how impacts on other systems are experienced. Moreover, whilst the socio-economic complexity of urban settings renders it more difficult to elucidate the impacts of displacement on urban hosts, in principle these disadvantages are offset by the greater availability of extant survey data in urban areas and the easier accessibility to urban households for conducting surveys.

### **3.3.5 Price impacts in the context of camps**

In camp settings, the impact of refugees on the prices of a certain local market will depend on the proximity of these camps to the market. Therefore, it is important to weight the number of refugees by the distance to the market.

Let  $R_{cjt}$  represent the number of refugees in the closest camp and  $dis_c$  be some scale reflecting the distance to the camp, the weighted number of refugees ( $R_{jt}$ ) is:

$$R_{jt} = R_{cjt} * dis_c \quad (12)$$

Another possibility is to create  $R_{jt}$  as a weighted average of the population in all camps, where the weights are the distance to each camp. This assumes that more than one camp may have an impact on local prices. If there are  $n$  camps, the weighted variable is:

$$R_{jt} = \sum_{c=1}^n R_{cjt} * dis_c \quad (13)$$

In addition to distance, it is also possible to weight  $R_{jt}$  for other camp variables such as closed camp versus open camp. Qualitative research can be used to determine the relative degree of openness of each camp, including through participant observation and semi-structured interviews. Then it is possible to assign a value for openness to each camp for the weighting process.

Another possibility is to adjust the distance indicator by differences in transportation infrastructure between two locations. Distance to the refugee camp may not mean much if there are poor roads. For example, 100 kilometres of distance with good quality roads could be equivalent to 20 kilometres with poor roads. Data on the quality of transportation infrastructure may not be available in many cases, but if these data are available, the adjustment can provide a better measure of the ‘proximity’ of a refugee camp.

Finally, it is possible to argue that the existence of other population centres in the area is also important. There is a difference between being the only population centre at which the camp population can have access and a case in which the pressure is distributed between several population centres.

### 3.3.6 Housing demand and housing supply issues

The determinants of the impacts of a refugee inflow on housing include refugees’ characteristics and preferences in regards to: household formation, renting versus owning, ethnic-specific amenities, the minimum acceptable level of quality of accommodations, the long-run adjustment of the housing market, and the presence of humanitarian

workers. There is also the possibility of restrictions imposed by host governments on refugees, which might prevent them from renting or buying properties.

It is useful to distinguish between refugees' impacts on house prices and rents. Refugees/IDPs demand for housing is likely to concentrate in the renting sector at least in the short-run.<sup>12</sup> There are several reasons for this. Refugees may be uncertain about their length of stay in a specific host location, especially in their first location. Even in those cases in which refugees plan to stay for an extended period, they may not be able to afford the purchase of a house. In addition, they may not have savings for a down payment and may lack any assets to use as collateral, in addition to a lack of credit history.

A possibility is to estimate a separate regression for the impact of refugees on rents. It is necessary to compare rents with a location unaffected by displacement to control for other factors that may affect rents. The main difference is that the unit of analysis is not an individual but a rented property. That is:<sup>13</sup>

$$r_{it} = \mu_1 \alpha_i + \mu_2 \tau_t + \theta(\tau_t * \delta_i) + x'_{it} \beta + u_{it} \quad (14)$$

Where  $r_{it}$  is the rent of property  $i$ , in year  $t$ ,  $\alpha_i$  is a property fixed effect,  $\tau_t$  is the year indicator,  $x_{it}$  are a series of control variables and  $u_{it}$  is the error term.<sup>14</sup>

It is possible that the data about rents per property across time required by (14) does not exist. In such a case, it is possible to use community or city level information and estimate a regression such as:

$$r_{kt} = \mu_1 \alpha_k + \mu_2 \tau_t + \theta R_{kt} + z'_{kt-1} \pi + x'_k \beta + u_{kt} \quad (15)$$

Where  $r_{kt}$  is the median rent in location  $k$ ,  $R_{kt}$  stands for the share of refugees in the population in the location,  $z_{kt-1}$  are a series of lag characteristics of the location (e.g. distance to market) and  $x_k$  are the initial location attributes.

Refugee-induced increases in rent levels penalise the renting sector of the host populations by forcing up prices, but may generate additional income for landlords,

<sup>12</sup> For example, according to Bailey and Rachel Atkinson (2008) in 2008, 58% of those internally displaced in Iraq were renting. Also, it is reported that the settlement of large numbers of Iraqi refugees in Syrian cities has increased rents by 150% (Al-Miqdad, 2008).

<sup>13</sup> It is recommendable to use the natural log of rent as the dependent variable.

<sup>14</sup> In some cases it may make sense to refer to the property-fixed effect as "location-fixed effect".



builders and building materials suppliers. The demand for additional services in the renting sector represented by refugees may also encourage more investors to enter the buy-to-let market, which in turn could increase house prices. Finally, in those countries which provide free or cheap housing to locals who cannot afford rents in the regular housing market (i.e. social housing), the increase in rents represented by refugees may increase the demand for this type of government provided housing benefits by pushing out the local (and eligible) population from the rented housing market.

One necessary adjustment relates to the quality of the houses on the market. At any point in time, it is only possible to observe the price of houses which are offered in the market. If, as hypothesized above, refugees concentrate on the low-quality housing sector, the houses sold in response to an influx of refugees would be of relatively lower quality. Hence, it is possible to observe lower housing prices in a community with high refugee intensity which do not reflect a decrease in the price of houses, but just a change in the mix of houses that are offered for sale.

As was the case with housing demand, it is possible that housing supply also adjusts over time to the presence of refugees. Hence, it is important to explore the impact of refugees on housing supply in the short-term and in the long-term. Finally, the impact of refugees on building materials mentioned above may also have important implications for the response of housing supply.

In some cases, the adjustment in the housing market could relate to development programs that aim to provide refugees with housing and start new construction initiatives. For instance, Zetter (1992) describes a government led housing project in Cyprus to provide accommodation for the Greek-Cypriot refugees of 1974. In order to investigate the impact of these types of programs, it is possible to separate those regions that participated from the housing program, from those that did not (refugees should be present in both regions) and evaluate the impact of the program on the number of houses and the price of housing services.

### **3.3.7 Environmental costs**

As the State of the Art Literature Review emphasises, the environmental impacts of displacement, such as depletion of water and fuelwood supplies, loss of farmland, and

long term degradation of environmental resources, are well documented. It is possible to quantify some of these environmental costs and impacts in relation to different environmental characteristics and land use economies where displaced populations settle.

It is possible to estimate:

$$env_{it} = \alpha + \mu_1 \delta_i + \mu_2 \tau_t + \theta(\tau_t * \delta_i) + x'_{it} \beta + u_{it} \quad (16)$$

Where  $env_{it}$  is the environmental outcome of interest as experience by individual  $i$  (e.g. access to farm land), for at time  $t$ ,  $\delta_i$  indicates if the individual is in a location that experienced the displacement shock,  $\tau_t$  indicates the period after the displacement shock,  $x_{it}$  are a series of control variables and  $u_{it}$  is the error term. Again, the coefficient of interest is  $\theta$  as it provides information over time on the locations that experienced the displacement shock.

Given the likely data limitations and the complexity of the issues, qualitative methods provide a much fuller account of some of the impacts of these variables and how they are managed. For example, environmental degradation is often assumed to add to tension, and potentially lead to violence, between host and displaced populations, arising as a result of increased competition over limited agricultural and natural resources. A qualitative assessment of these potential or actual outcomes will help to verify such factors as the extent of causality, how the social and economic environmental costs are 'valued' by the communities, and the means by which competition is mediated (or not) by government settlement policies, resource development strategies and the policies of humanitarian and development actors.

### 3.4 Winners and losers

Until now, the estimation has been comparing the impact on the key indicators of the whole host community. However, it is possible, and very likely, that the impact of the increase in the number of refugees is not the same across all sectors of the host population (Chambers, 1986).

For instance, for the labour market, the degree of substitution between refugees and locals in the labour market is one of the key determinants of the effect of

displacement on locals' wages. An increase in the labour supply due to displacement should lower wages if refugees and locals are 'substitutes', while if refugees 'complement' locals in terms of production, displacement may increase locals' wages. The degree of substitution between refugees and locals will vary for different types of local workers.

**Figure 2 - Different impacts of refugees**

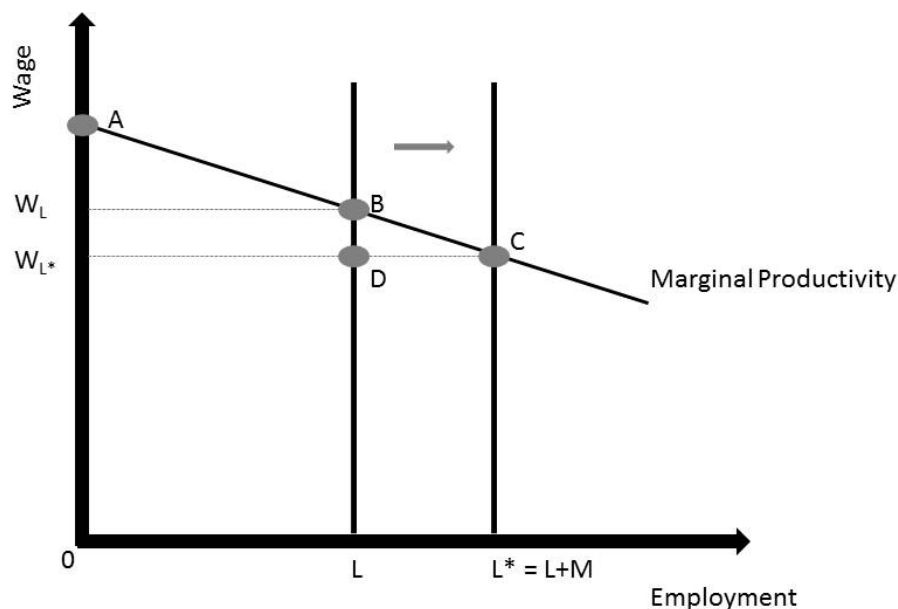


Figure 2 shows a very simple labour market model with standard economic assumptions, assuming that refugees and locals are *perfect* substitutes in production (i.e. no skill differentials between the two groups) and that there is just one type of worker. It is possible to estimate that the increase in the labour force from the initial point ( $L$ ) to the new level with refugees ( $L^*$ ) decreases wages from  $W_L$  to  $W_{L^*}$ . Therefore, in this specific example local workers face a decrease in their wage after the entrance of the refugees to the labour market. However, it is also possible to show that national income increases from the area  $ABL0$  to the area  $ACL^*0$  after the entrance of refugees.

Therefore, refugees increase national income. From the increase in national income, refugees themselves get the area  $DCL^*L$  (the new wage  $W_L^*$  multiplied by the number of refugees,  $R$ ). The owners of the capital, that can take advantage of the lower wages in the labour market, get the rest of the increase in national income. Therefore, the presence of refugees may have an important income redistribution effect. In practice, there are workers with different skill levels, refugees and locals are not perfect substitutes, and there are other differences between sub-groups of the host population. Refugees are likely to have diverse impacts on wages, increasing the wage of some groups and decreasing the wage of others. Hence, it is important to evaluate the impact on different groups in the host population.

### 3.4.1 Parameters and indicators

Table 6 contains a list of some other possible distinctions that could be made within the host population. It is also possible to combine two of the sub-groups (e.g. low skill workers from certain ethnicity).

**Table 6 - Possible subgroups to use to estimate the impact of an increase in the displaced population**

Parameters	Occupation	Gender	Age	Skill Level	Origin related
<b>Main indicators</b>		<i>Female</i>	<i>Over 65 years of age</i>	<i>High skill workers</i>	<i>Previous displaced groups</i>
		<i>Male</i>	<i>Between 16 and 65 years of age</i>	<i>Medium skill workers</i>	<i>Certain ethnicity/religion</i>
			<i>Between 5 and 16 years of age</i>	<i>Low skill workers</i>	<i>Certain country/region of origin</i>
			<i>Less than 5 years of age</i>		

It is also relevant to keep in mind the possibility of individuals changing across some of these groups overtime. It is important, for instance, to explore if the presence of refugees has prompted locals to change across these subgroups and, if that is the case, it is necessary to adjust for the entry and exit of locals in these categories. Therefore, it is possible to exploit short-run (i.e. not that many changes have occurred) and long-run (i.e. both, the host and refugee population have adjusted) differences in the dynamics.

## 3.5 Analytical tools

### 3.5.1. Occupation specific impacts

For some occupations refugees may complement the local labour force, improving their labour market outcomes, while for others, refugees may represent a substitute labour force, potentially harming labour market outcomes. A high degree of substitution is likely in less skilled occupations because employees are more interchangeable and training costs are low (Orrenius and Zavodny, 2007).

In occupations with higher skill levels, the need for specific knowledge may reduce the degree of substitution. Policies from the host state such as licensing requirements for certain professions, not recognizing refugees' qualifications, or limitations in the sectors which can legally employ refugees may also affect the degree of substitution between local workers and refugees. In order to explore the impact of refugees accounting for occupation specific impacts, it is possible to have an equation in which the unemployment rates are occupation specific ( $o$ ), that is:

$$(U_{o,post} - U_{o,pre}) \quad (17)$$

Where  $U_{o,pre}$  ( $U_{o,post}$ ) stands for the pre-displacement (post-displacement) unemployment rate in a certain occupation. In this case, it is possible to estimate something like:

$$\begin{aligned} & (U_{o,post} - U_{o,pre}) \\ &= (\alpha_{o,post} - \alpha_{o,pre}) + (x_{o,post} - x_{o,pre})\beta + \gamma(r_{o,post} - r_{o,pre}) + (u_{o,post} - u_{o,pre}) \end{aligned} \quad (18)$$

Where  $U_o$  represents the average local unemployment rate in occupation  $o$ ,  $x_o$  are the occupation specific control factors,  $r_o$  is the number of refugees in a certain occupation as a share of the local population in that occupation and  $u_o$  is the error term. In this case,  $\gamma$  provides information on the impact of the refugee concentration in a certain occupation on wages in that occupation.

One potential problem with estimating (18) is that refugee flows may not be independent of occupation specific unemployment growth. Refugees may look for occupations that have higher unemployment rates, where it is easier to find a job. This causes a problem of endogeneity in (18). Therefore, it is necessary to find an instrument

for the growth in the share of refugees in each occupation; that is, a variable related to the share of refugees in each occupation that is not affected by the change in occupational unemployment.

A possible instrument is the occupation of refugees before moving to the host community. If workers already have knowledge, experience and training in a certain occupation, their earnings should be higher in that occupation in the host location in comparison with other occupations (Friedberg, 2001). Moreover, the previous occupational choices of refugees provide information about their preferences as regards types of jobs. As a result, a new group of refugees in certain occupations (before displacement) is likely to increase the share of refugees in that occupation. Yet, the previous occupations of refugees are not affected by the occupation-specific unemployment rates of the host location.

It is important to examine if there are explicit limitations for refugees to work in certain sectors. For example, qualified doctors from many countries in conflict are likely not able to practice their profession in other (mostly developed) countries. This limitation will limit the degree at which some groups of refugees may work in their previous occupations. Moreover, if a large portion of the refugees do not have the necessary legal status to work in the host country, it will be difficult to assume that they will be able to find jobs in their previous occupations. In such cases, the proposed instrument will not be valid and it is necessary to look for other options.

If refugees have occupation specific impacts, it is also possible for refugees to affect the relative wages between occupations. In the same way, it is also possible for refugees to increase the gap between workers of different skill levels. For instance, if refugees are concentrated in the low skill sector, the refugee inflow may decrease the wage of low skilled workers (i.e. substitutes), but may increase the wages of medium skilled or high skilled workers (i.e. complements). As such, refugee inflows may result in a greater wage gap.

### **3.5.3 Relative wages**

If refugees have occupation specific impacts, it is also possible for refugees to affect the relative wages between occupations. In the same way, it is also possible for refugees to

increase the gap between workers of different skill levels. For instance, if refugees are concentrated in the low skill sector, the refugee inflow may decrease the wage of low skilled workers (i.e. substitutes), but may increase the wages of medium skilled or high skilled workers (i.e. complements). As such, refugee inflows may result in a greater wage gap. In order to investigate the impact of refugees on relative wages, it is possible to estimate:

$$\frac{w_{ijt}}{w_{kjt}} = \alpha_j + \gamma \left( \frac{n_{ijt}}{n_{kjt}} \right) + \delta \left( \frac{r_{ijt}}{r_{kjt}} \right) + x'_{jt} \beta + u_{ijt} \quad (19)$$

Where  $w_{ijt}$  is the mean wage of workers in skill group  $i$  in location  $j$  at time  $t$ ,  $w_{kjt}$  is the mean wage of wage of workers in skill group  $k$  in location  $j$  at time  $t$ ,  $n_{ijt}$  and  $n_{kjt}$  are the numbers of locals in those skill groups as share of the population and  $r_{ijt}$  and  $r_{kjt}$  are the number of refugees in that skilled group as share of the population.

### 3.5.4 Formal versus informal sector

Refugees may represent an attractive labour force for employers in the informal sector of the economy, where wages tend to be lower given the lack of applicability of minimum wage laws and benefits such as employment insurance. Informal sector employment could also be a temporary stop for new refugees on their way to formal sector employment. There are two possible explorations in the case of informal sector employment. First, if there are data about wages in the informal sector of the economy, it is possible to explore if refugees actually decrease informal sector wages. Second, it is possible to estimate if refugees increase the gap between wages in the formal and informal sector. This is likely to occur in those instances in which refugees concentrate in the informal sector and those in which informal sector wages are more responsive to increases in the labour supply.

### 3.5.5 Qualitative methods to assess winners and losers

Assessing winners and losers amongst the host population lends itself to qualitative methods. These methods can address some of the uncertainties exposed in the numerical analysis of how different facets of the host economy and social structures adjust and adapt to the insertion of new refugee/IDP actors. Qualitative methods can also be utilised to elaborate the economic and social dynamics of interactions between host and displaced

populations. This understanding will give a more complete picture of the impacts on host populations and the levels of 'tolerance' or the absorptive capacity of the host population.

For example, investigation of the occupational constraints and opportunities can be supported by questionnaire surveys of local businesses and labour. These will elucidate the changing patterns and impacts of refugee/IDP labour supply, the substitution effects, if any, how relative wage rates condition labour market participation. Impacts on both the formal and informal labour markets such as diversification of economic activity and thus the potential increase in labour demand or crowding out of host labour supply by undercutting wage rates, lend themselves to qualitative analyses to gain a clearer understanding of how, why and over what time periods these changes occur.

At the same time proxy impacts can be assessed through surveys of refugee/IDP households: these will help to substantiate the effect of entry barriers on labour market participation in different occupational sectors and the strategies which refugees use to avert them – for example informal working, downward occupational mobility.

Of necessity, children of displaced households may enter the labour market. Qualitative analysis will provide a deeper understanding of the socio-economic dynamics and domestic norms (for example attitudes to female wage employment or child labour), which condition these responses and thus the effects on host populations. Government policies in relation to refugees' rights to work (or not) as well as policies which may control the settlement locations for displaced populations lend themselves to qualitative analysis. These will provide a much deeper understanding of the dynamics and thus the impacts of refugees and IDPs on labour markets.

In some displacement settings, distinguishing between the three different populations and thus the costs and impacts – hosts, IDPs and refugees – is increasingly challenging. Uganda is a prime example, but Kenya also manifests the same diffusion of hosts, IDPs (from urban violence in 2007/8) and of course refugees from the Horn of Africa. And in these and other settings (for example Afghan refugees in Pakistan), the populations are not static: refugees and IDPs move between the different settings of camps, urban locations and 'home' according to economic and social needs and security



considerations. Urban settings in particular are susceptible to fluidity of movement in and between these taxonomies.

These phenomena are imperfectly addressed by quantitative methodologies. However, qualitative analysis – notably at the household level - can play a valuable role in ‘tracing the sources’ of the impacts which derive from these different populations. Equally, these methods can help to elucidate and explain patterns of movement - in time, space, taxonomy – the social interaction between the different populations and how these variations shed light on perceptions of the impacts and costs experienced by the different groups. For example, analysis of changing patterns of marriage between displaced and host populations, or access to education (integrated education systems are usually promoted by humanitarian agencies as mutually beneficial), can show how social interaction variables condition *perceived* and *actual* costs and impacts of displaced populations. Attitudinal and focus group surveys may be used to explore how humanitarian and development policies and programmes influence host behaviour, perceptions of costs and impacts. In this regard, qualitative methods can be particularly informative of the potential, or the outcomes, of local settlement and integration strategies as one of the three ‘durable solutions’.

Knowledge of this kind derived from qualitative analysis is thus very pertinent in understanding how impacts and costs for the host populations vary through time and how they are mediated by social and political structures as well as humanitarian and development programmes.

#### 4. Measuring the Economic and Social Impacts of Displacement on the Area and Country of Origin

Separating the impact of displacement due to violence on a certain location from the impact of war and widespread violence can be challenging and makes the estimation of the impact of displacement on the home population (i.e. those left behind) and the home country (i.e. country of origin of the refugees) a difficult process.<sup>15</sup> However, it is still possible to estimate the impact of certain aspects of the displacement process on the home country and home population. It is also possible to explore how these key differences affect the impact of displacement.

What is needed are two locations in the home country that suffered from similar levels of violence due to a certain conflict, but one in which there was displacement and other in which there was no displacement. In such a scenario it is possible to compare things like the impact of certain sector-workers becoming refugees, leaving health, educational and infrastructure services, among others, under-staffed. This could have longer-term impacts, such as, stayees educational outcomes and health outcomes. However, finding two locations with such characteristics is not an easy task (although certainly, not impossible). An interesting alternative is to look at households with comparable characteristics in a certain location, affected in dissimilar ways from the displacement process. Given that the households are in the same location, it is possible that both experienced the same level of violence and insecurity (it is possible to use qualitative information to corroborate this fact). The differences between households which could be of interest include having (or not) absent members due to displacement and receiving (or not) remittances.

Despite the very limited use of qualitative methods, in practice, to assess country of origin and stayee population impacts, in principle they can facilitate the analysis, covering many of the same indices as for the host country impact assessment; and they tend to yield the same benefits in terms of deepening understanding of the widespread impacts of displacement and return on the country of origin. They may be especially

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<sup>15</sup> There is an extensive literature on the economic impact of war and violence in home countries. See Glick and Taylor (2005).

valuable where there are no quantitative data for a comparator location unaffected by displacement.

Qualitative research informs the quantitative estimation in several ways, for example: exploring the strategies which stayee populations have used to cope with violence, conflict and loss of income as well as the departure or death of household members; if households in the same location experienced the same level of violence and insecurity; and the extent to which economic or security conditions have an important impact on the timing of return.

#### 4.1 Parameters and indicators

Table 7 provides some of the factors that could be compared across households with comparable characteristics that experienced displacement in different ways. The next subsections explain how to do this using the example of household income per capita.

**Table 7 - Possible variables to compare across households**

<i><b>Income related</b></i>	<i><b>Poverty related</b></i>
<i>Income levels</i>	<i>Poverty ratio at national standards</i>
<i>Consumption levels</i>	<i>Poverty ratio at international standards</i>
<i>Assets</i>	<i>Poverty gap at international standards</i>
	<i>Poverty gap at national standards</i>

#### 4.2 Analytical tools

In order to estimate the impact of displacement on household income per capita it is possible to compare household income in the pre- and post-displacement periods. However, this ignores the fact that displacement does not affect all households in a certain location in the same way. Among other possible differences in impact, some households suffer separation from some of their members. For those households without absent members it is possible to compare household income per capita for the pre- and post-displacements periods. However, for those households with absent members it is necessary to estimate the counter-factual household income per capita, that is, the per capita income if the absent person was living and contributing to household income.

In order to make comparisons between pre-displacement and post-displacement income for household members it is necessary to estimate the income of the household if that absent member would have otherwise been contributing to the household budget. In order to estimate this income it is possible to take the characteristics of a household with an absent member and match those characteristics with a household in which there is no absent member (Jimenez and Brown, 2008). That is, the goal is to have households that are as similar as possible, with the difference that one has an absent member and the other does not.

The propensity score matching method can be particularly useful for this purpose. This method provides information of the effect of some treatment (e.g. absent member) on a specific outcome compared to the outcome if the treatment had not taken place (e.g. no absent member). It involves a selection from the households without absent members of a control group for which the distribution of observed variables is as similar as possible to the distribution of those with absent members. The propensity score is the probability of having an absent member given the household characteristics (e.g. estimated using a Probit model). Each household with an absent member is matched with the household with no absent member that has the closest propensity score. Then the income of the closest match will provide an indication of the income per capita of the household with the absent member if there was no absent member. By focusing on the household level this method not only adjusts for the absence of a household member in terms of his/her income, but also adjusts for the impact that this absence may have had on other household members.

### **4.3 Characteristics of the households**

At this point households could be separated according to different demographic characteristics such as those presented in Table 8. It is possible to explore if having an absent member has a special impact on some types of households compare to others.

**Table 8 – Possible characteristics of the household to use for differentiation**

<b>Gender</b>	<b>Age</b>	<b>Others</b>
Female/male ratio	Adult/children ratio	Ethnicity
HH gender	Average age	
Absentee member gender	Number of children	
Children gender ratio	HH age	

## 4.4 Other considerations

### 4.4.1 Remittances

One of the main consequences of having family members in a different location is the possibility of receiving remittances. Receiving these money transfers could have important consequences for poverty, consumption levels and household expenditures, among others. At the aggregate level, many countries collect data on received remittances. These data tend to vary in quality from country to country for several reasons, including the high proportion of remittance transfers sent through informal channels and the difficulty of separating remittances (i.e. transfers of money between individuals) from other international monetary transactions. In addition to this problem, it is likely that for most countries it is not possible to obtain aggregate level data on remittances from refugees separate from remittances of other migrants. One possibility is to look at the source country of remittances and speculate on the individuals sending the money and their original motivations for migrating given the source country. However, for many countries there is not disaggregated data on remittances by source country. Moreover, in countries that do have such data, it is common to attribute money transfers channelled through international banks to a country other than the actual source country (Ratha and Shaw, 2007). Finally, refugees may remit to both their homeland and to neighbouring countries where relatives reside, making the tracking of these flows even harder (Van Hear, 2003).

For all these reasons, it is likely that the study of remittances in the context of displacement is more suited for the use of micro level data. It is likely that in these data

there is detail information on the absent member (if any), including the reasons for separation from the household, the country or region of residence and his/her monetary transfers. It is possible to compare the outcomes of those households that receive remittances, with the outcomes of those households that do not receive remittances. It is possible to use the methodology explained below to explore the impacts of remittances on the variables listed in Table 9, among others.

**Table 9 - Possible impacts of remittances to explore in the context of displacement**

<i>Income related</i>	<i>Poverty related</i>	<i>Others</i>
<i>Income level</i>	<i>Poverty ratio at international standards</i>	<i>Human capital investments</i>
<i>Consumption level</i>	<i>Poverty gap at international standards</i>	<i>Health care expenditures</i>
<i>Assets</i>	<i>Poverty ratio at national standards</i>	<i>Establishing a small business</i>
	<i>Poverty gap at national standards</i>	

In general, there are four possible types of households in regards to remittances and member absenteeism as presented in Table 10. It is possible for some households to have no absent members as a result of displacement and receive no remittances (Type 1), to receive remittances and have no missing members (Type 2), to have missing members and not receive remittances (Type 3) and to receive remittances and have missing members. In the case of Type 1 and Type 2 households, there are no changes in the composition of the household, and it is possible to compare household income per capita before and after the displacement process. While Type 2 receives remittances, these transfers are not coming from an absent household member and are, therefore, exogenous to household composition. In this case, it is possible to compare pre-displacement income, with post-displacement income, plus remittances. In the case of Types 3 and 4, there is a change in the composition of the household. For these households it is necessary to estimate the counter-factual income. For Type 3 households, it is possible to compare the current income with the counterfactual income, while for type 4 households it is possible to compare the counterfactual income with the current income plus remittances.

**Table 10 - Four types of households**

<i>Absent member(s)</i>			
		<b>No</b>	<b>Yes</b>
<b><i>Receives remittances</i></b>	<b>No</b>	<i>Type 1</i>	<i>Type 3</i>
	<b>Yes</b>	<i>Type 2</i>	<i>Type 4</i>

## 5. Impacts and Costs related to the type of assistance provided to the displaced Refugees and IDPs

This part focuses on the donors and humanitarian actors, expanding the discussion to provide some tools to identify and measure the impact and cost dimensions which relate to their activity. It provides a) an empirical strategy for estimating the impacts and costs related to the type of assistance provided; and b) develops tools to assess interventions to promote the three ‘durable solutions’ to refugee situations. Special emphasis is put on estimating the impacts on the refugees/IDPs but also the host communities (i.e. ‘locals’).

### 5.1 Parameters and indicators

The parameters that could be investigated here, relate to the objectives of the program (i.e. income, health). However, it is also possible to evaluate the impact of a program on other parameters such as those presented in the section on the impact of displacement on the displaced (specifically see Table 2). For each of the parameters it is possible to evaluate the impact of the existence of a program, but also of the program characteristics.

### 5.2 Analytical tools

The analysis will depend on the type of program that is being evaluated. For instance, imagine that there is a program that is implemented in a certain region, but not everyone in the region participates in the program. In the case, the displaced individuals who do not participate in the program form the control group which is used to test the impact of program participation, while the main group of interest are program participants. Referring back to (1) it is possible to estimate the impact of program participation on economic outcomes using:

$$y_{it} = \alpha + x'_{it}\beta + \gamma P_i + u_{it} \quad (20)$$

Where  $P_i$  is a dummy variable indicating participation in the program of refugee  $i$ . The coefficient  $\gamma$  provides information on the impact of program participation on the outcome of interest.



A possible second step is to make a distinction by type of program. For instance, imagine that there are two alternative way of participating in the program. An indicator of type of participation could be included in (20). The estimation will then provide information on what is the impact of participating on the program in general and then on the differences between participating in a specific manner.

In other cases, everyone in a region will participate in the program. This includes programs which do not target individuals or households, but a certain geographical area. In this case the most useful methodology is the difference-in-difference estimator discussed above. It is necessary, therefore, to look for a community with similar characteristics which do not participated in the program in order to make a valid comparison. See the details of the discussion above.

Qualitative methods, investigating how displaced people respond to, and mediate, humanitarian assistance can provide a deeper understanding of the positive and negative impacts which assistance programs produce and the potentially substantial variation over time, between different locations and between different groups of recipients. Assessing how displaced people view the often ambiguous interplay between humanitarian assistance and their own agency and self-reliance – the later, of course, a core precept of humanitarian organisations – is particularly pertinent in this context. Amongst the qualitative survey methods which might be used, or for which data may already exist from NGOs' impact and evaluation studies, are in-depth or semi-structured interviews/questionnaires, focus groups and community meetings. Project or program evaluations conducted by humanitarian organisations and agencies may also be a potentially rich source of information on impacts.

### **5.3 Important considerations for the estimation**

#### **5.3.1 Program selection**

Ideally, unobserved variables that may affect the economic outcome of interest should not affect participation in the program. This may occur when the number of potential beneficiaries of a program is greater than those who can participate given the limited resources and, therefore, there is a selection process. If there is a selection process in

place which may relate to the outcome of interest, an option to conduct the econometric analysis is to find an instrument for participation in the program. This instrument is necessary to control for the effects of the selection process into programs. That is, it is necessary to find a variable that is strongly related with program participation, but not with the outcome of interest.<sup>16</sup>

### 5.3.1 Indirect effects

There could be “trickle down” or “trickle out” effects of intervention programmes. Hence, individuals who have not directly participated may nonetheless also indirectly benefit. It is important to analyse these intended and unintended consequence and developmental outcomes so that the net contributions can be maximised. This also has implications for the estimation of (20) as the impact does not depend exclusively on program participation. In these cases, the estimation comparing communities that were impacted by the program and those which were not impacted may provide a better approach, as it compares communities and not individuals.

### 5.3.2 The impact of humanitarian workers

In addition to aid, the presence of international organizations is likely to bring humanitarian workers to the region. The increase in demand for products represented by humanitarian workers is not the same as that represented by the increase in the refugee population, because of differences in income and preferences. Humanitarian workers are likely to demand more ‘luxury’ goods such as restaurant food, private transportation, domestic workers, and hotel rooms (Alix-Garcia, Barlett and Saah, 2010). Therefore, it is possible to include a control variable for the number of humanitarian workers in the estimation. Qualitative surveys of humanitarian agencies can reveal the scope of demand for new goods and services.

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<sup>16</sup>A possibility is to use participation in one intervention program as an instrument to assess participation in another intervention program. For example, Ibañez and Moya (2009) propose the use of a dummy variable indicating the access of households in Colombia to emergency humanitarian aid (EHA) as an instrument to measure participation in a USAID program. They argue that receiving EHA only has a short-term impact on households as the assistance only lasts a few months and it is not for income generation purposes. However, it is necessary to receive EHA in order to be a candidate for the income generation program and individuals must prove their condition as a displaced person.

## 5.4 The three ‘durable solutions’

The methodology has proposed a set of tools to measure the costs and impacts of displacement. Although the majority of refugees and IDPs remain in conditions of protracted displacement, the search for solutions to these conditions is enshrined in the mandate of the UNHCR and is a principal objective of donors, governments and international actors. Accordingly the study now turns to developing tools to assess interventions to promote solutions and in particular the gain from a specific solution in relation to another. Conventionally there are three so called ‘durable solutions’ to refugee situations – return to country of origin, resettlement in a third country, settlement in the host country: each is contingent on the voluntary agreement of refugees. For IDPs the 1998 Guiding Principles outline the responsibilities of governments to return people to their homes or places of habitual residence or to resettle displaced people in another part of the country.

The methodology now considers the costs and impacts for each of the three selected stakeholder groups – the displaced, the host country/population and the home country/population – in the context of the durable solutions. It should be noted that many of the impacts and costs variables – such as labour market impacts and impacts on social welfare such as education and health – are similar to those already proposed above. The principal difference lies in the introduction of specific locations for the impacts, for example, in third countries of resettlement. To avoid repetition, the discussion in this section only highlights the main considerations. The meaning of “host” and “home” changes depending on the specific situation (e.g. refugees versus IDPs). In some cases host may refer to the host population and in others cases to the host country.

As before there are many challenges in making the estimation of the impacts, not least in establishing counterfactuals. However, this does not mean that it is impossible to make some estimates.

### 5.4.1 Parameters and indicators

The parameter and indicators that could be evaluated in this context include all of those that were referred to in the context of the impact of displacement on the displaced (see Table 2).

### 5.4.2 Analytical tools

There are 10 possible direct comparisons in regards to ‘durable solutions’ as illustrated by Table 11.

**Table 11 - Possible comparisons in regards to ‘durable solutions’**

	In displacement	Return	Third country	Resettled in host
Non-displaced	Comparison 1	Comparison 2	Comparison 3	Comparison 4
In displacement		Comparison 5	Comparison 6	Comparison 7
Return			Comparison 8	Comparison 9
Third country				Comparison 10

In these cases the difficult part is to create a counterfactual scenario. For instance, someone has returned back home and there is an interest in evaluating the impact of returning for that person compared to the alternative situation in which the person was still displaced. As explained above, in this case we have to compare this individual with another person who is still displaced, while at the same time controlling for all other relevant factors. Many of those factors are observable and there are data available to control for those, yet others are unobservable and impossible to control for. This problem is similar to the one discussed above in Section 2 and so are the solutions. However, given that there could be some differences between the two contexts, the discussion below provides some further insights on this specific situation.

## 5.5 Important considerations for the estimation

### 5.5.1 Selection process among the resettled

Following the suggestions in Table 16 it is possible to compare those that resettled to those that are still in displacement. However, it is possible that those that resettled are not equal to those that stay behind in refugee camps and other forms of protracted displacement. There could be a tendency for the most skilled and educated to be the ones that are resettled first. For instance, the selection process of resettlement countries may provide priority for the higher skilled. It is argued that some countries select refugees based on the potential for future integration which is strongly related to skill level (Banki and Lang, 2008). Also, sometimes there is a ‘first in, first out’ resettlement policy.

However, it could be the case that the early arrivals are different than later arrivals in relevant factors such as skills. Therefore, it is important to control for the selection process related to resettlement. Otherwise, it is possible that the better outcomes of those that resettled compared to those that are still in displacement do not result from not being in displacement, but from their different characteristics.

### **5.5.2 The impact of resettlement on those left on displacement**

It is also possible that the resettlement of those with higher skills results in worse outcomes for those that remained in displacement (Banki and Lang, 2008). For instance, there is evidence that the resettlement of refugees from refugee camps in Thailand may have had important effects on those that were left behind on the camps. The resettlement of the most educated resulted in a loss of capacity in the camps. Therefore, it is necessary to control for the share of the population that has been resettled in the area of residence of the refugee when comparing the outcomes of those that are still in displacement to those that have resettled or returned home.

### **5.5.3 Selection of re-settlement location**

As discussed previously, it is possible that the destination in the host country of refugees is not random. However, this is more likely in a situation of resettlement as there could be matching of the characteristics of refugees to that of the resettlement communities. If the individuals are being resettled and the characteristics of the refugees are in some way matched to those of the communities of resettlement then this will have important consequences for the methodological alternatives suggested below. For instance, if refugees are settled in communities that have low rental costs, it may seem that refugees decrease rents, while the causality runs in the opposite direction.

### **5.5.4 Impact of return**

From the three durable solutions, the return of refugees is the one more likely to impact the home communities. For instance, the return of refugees to their home communities is likely to have an impact on the non-displaced individuals (i.e. those that stayed behind).

Returning refugees are likely to represent an increase in the labour supply, not very different from that discussed above in the context of impacts on host communities in the context of the host destination. However, there are several key distinctions between

the two processes. First, while refugees in the host destination could be very different from the local population in important characteristics (e.g. skills) that could make them a complement to the existing labour force; refugees are more likely to be similar to the home population increasing the possibility of representing a substitute labour force. Second, other characteristics such as ethnicity, language, and educational background (e.g. education and qualifications could have been obtained in the home country) may provide them with immediate access to the local labour markets. This is especially the case in non-protracted displacement situations. In protracted displacement situations, ‘returnees’ may be second- or third-generation refugees, who have been educated (if at all) in the host context/refugee camp, and may not even speak the official language in the country of origin.

The possible labour market outcomes of non-displaced individuals that returning refugees may affect include: wages, employments status, type of jobs, labour force participation and hours worked. It is possible to estimate an equation of the following form:

$$y_{ijt} = \alpha + \delta \text{Returnees}_{jt} + x'_{ijt} \beta + u_{ijt} \quad (21)$$

Where  $y_{ijt}$  is the labour market outcome of non-displaced individual  $i$ , living in location (e.g. community, district, state)  $j$ , at time  $t$  and  $\text{Returnees}_{jt}$  is the number of refugee returnees in location  $j$  at time  $t$ . Meanwhile,  $x_{ijt}$  are the control variables and  $u_{ijt}$  is the error term. A regression such as that suggested by (21) will provide information on the impact of the number of returning refugees to a given location on the labour market outcome of non-displaced individuals.

However, there are several statistical problems related to estimating (21). For instance, in the same way that it is possible for refugees to be attracted to labour markets that are doing better while locating in the host country or community, it is also possible for refugees to select a location with better labour market conditions when returning to the home country. State and non-state actors often designate refugees to particular areas. Yet, this designation often prioritises returnees’ agency and could involve an important aspect of selection on the part of refugees. This location selection will make the

exploration of the impact of returning refugees on labour market outcomes a challenging process.

However, there could be some options to circumvent this problem. For instance, as Sayre (2003) explains, during the occupation of Gaza and West Bank by Israel, there were strong restrictions for Palestinians concerning the construction of new homes, or selling or buying a home. As a result, Sayre (2003) argues that the majority of returning Palestinians did not consider moving to a new location, given that they already had a home in a specific place. As such, their original location determined their return location, not the specific labour market conditions in that location. This may be the case in other displacement events. In other cases, it remains necessary to look for an exogenous factor that affects the location of returning refugees or adjust the estimation for the lack of such a factor.

Even if labour market conditions do not affect the location selection of returning refugees, the timing of return could be associated with economic conditions (that could relate strongly with improved security). An improvement in economic conditions may encourage more refugees to return, and this may provide the impression of returning refugees causing an improvement in economic conditions, while the reality is that their return resulted from the improved economic conditions. Likewise, poor economic conditions may result in refugees delaying their return.

Qualitative research can be of assistance in determining if economic conditions are a strong determinant of the timing of return. If that is the case, then there is a need for an instrument for the number of returnees. Sayre (2003) suggests that a useful instrument in this case is the proportion of residents in a certain location and with a set of skills, including work experience in a specific occupation, in a previous period (e.g. one year before). This proportion should have an impact on the number of returnees in each location, but it is not affected by the current economic conditions. It would be necessary to adjust the period of reference for the instrumental variable for each conflict.

## CHAPTER 2: STUDIES FOR PHASE 2

The Terms of Reference requested that the study should identify case studies for Phase II for which researchable data-sets exist for empirical analysis of the economic and social impacts and costs of displacement, programme responses, analysis of the political economy contexts, and operational lessons.

The rationale for the selection of case study countries is based on the following criteria:

- the most frequently cited cases in the literature review and for which five or more empirically founded bibliographical references or significant, large-N datasets have been identified – indicating the likely availability of extant datasets derived from both quantitative and qualitative methodologies
- conclusions from the pilot testing of the quantitative methodology
- potential basis for collaboration with in-country researchers and organisations
- the priority situations identified by the UNHCR's 2008 *Initiative on Protracted Refugee Situations*:

*Refugee Situations:*

- Afghan refugees in Pakistan
- Bosnian and Croatian refugees in Serbia
- Burundian refugees in Tanzania
- Eritrean refugees in Eastern Sudan

The following case studies are selected for discussion as the most appropriate for further analysis in Phase II. The cases indicated in bold are those for which the most comprehensive data-sets are currently available (including, in particular, FAFO data-sets, and research funded or completed by the World Bank), requiring minimal additional data collection in Phase Two of this project.

- **Afghan refugees in Pakistan**
- IDPs and Refugees from and in the Balkans
- Burundian and Rwandan refugees in Tanzania
- **Palestinian refugees in Syria, Jordan, Lebanon, OTP, Gaza and West Bank**
- **Iraqi refugees in Syria and Jordan**
- **IDPs in Colombia**



- **Somali refugees in Kenya**
- **IDPs and Sudanese refugees in Northern Uganda**
  - IDPs and Ugandan refugees in Southern Sudan
  - Eritrean refugees in Eastern Sudan
- IDPs in Darfur

## 6.1 Collaboration

In addition to the overall technical requirements and the availability of datasets, two other factors condition how Phase II should be developed. First, success will depend on establishing partnerships with in-country researchers. Second, buy-in from host countries will potentially add considerable strength to the quality of the study and the eventual uptake of the analytical methods, recommendations and policy implications.

On the basis of the literature reviewed, and the potential for capacity-building between the existing project partners and South-South and North-South partnerships, research institutes, NGOs and other organisations, the following potential collaborators have been identified for Phase II:

- Uganda – Refugee Law Project, Makerere University, Kampala
- Tanzania - Centre for the Study of Forced Migration, University of Dar-es-Salaam
- South Africa – Centre for Migration and Development, University of Witswatersrand
- Kenya – Nairobi University
- Afghanistan - Afghan Research and Evaluation Unit, Kabul
- ESCWA /ECRI (Emerging and Crisis Related Issues Section)
- Department of Economics, Universidad de los Andes, Colombia

## 6.2 Overview of potential case studies

Drawn from the State of the Art Literature Review the following table provides a long list of potential Phase II case studies organized according to the origin of the displaced population and the relevant host countries, and indicating whether the population was internally (IDP) or internationally (refugee) displaced. The list of host countries is not exclusive, but rather identifies those host contexts which emerge most frequently in the literature reviewed, and where sufficient datasets have been identified.

**Table 12 – Viable Case-Studies**

<i>Continent/Region/State of Origin</i>	<i>Hosting Country or Country of Asylum</i>	<i>IDPs and/or Refugees</i>
<b>Asia</b>		
Afghanistan	Afghanistan Pakistan Australia	IDPs Refugees
Indochina	Canada France Norway USA	Refugees
Indonesia	Indonesia	IDPs
Philippines	Philippines (Mindanao)	IDPs
<b>Europe</b>		
Balkans	Balkan states Other European states	IDPs Refugees
Finland	Former-USSR (post-WWII)	IDP/Refugees
<b>Latin America</b>		
Colombia	Colombia	IDPs
<b>Middle East</b>		
Iraq	Iraq Lebanon Jordan Syria Australia	IDPs Refugees
Palestine	Gaza and West Bank Lebanon Jordan Syria	IDPs Refugees
<b>Sub-Saharan Africa</b>		
Angola	Angola	IDPs

	Zambia	Refugees
Burundi	Burundi Tanzania	IDPs Refugees
Democratic Republic of Congo	DRC	IDPs
Eritrea	Eritrea Sudan (Eastern Sudan) Kenya	IDPs Refugees
Ethiopia	Ethiopia Somalia (Ogaden) Sudan (Eastern Sudan) Kenya	IDPs Refugees
Liberia	Liberia	IDPs
Mozambique	Mozambique	IDPs
Rwanda	Rwanda Tanzania	IDPs Refugees
Somalia	Somalia Kenya	IDPs Refugees
Sudan	Sudan (Darfur & Southern Sudan) Kenya Uganda	IDPs Refugees
Uganda	Uganda Sudan	IDPs Refugees

# CHAPTER THREE: PILOT TEST OF THE METHODOLOGY: THE CASE OF NORTHERN UGANDA

## 7.1 Introduction<sup>17</sup>

This chapter contains an outline of a pilot test of the methodology described in this report. The purpose of the test has primarily been to gain more understanding of the practical challenges associated with applying a typical real-world dataset to the methodology, including identifying particular challenging variables and parts of the model, and to explore alternative ways to handle the challenges. The Dataset used in the testing is the Fafo Uganda household survey from 2005<sup>18</sup>. The data is collected from a survey of over 3000 households in Northern Uganda and follows a format typical for living conditions surveys, but is also tailored to fit the context of interviewing displaced persons. The dataset covers both monetary costs, such as income, and non-monetary costs, such as health outcomes.

The methodology developed highlights how one may determine how the costs of displacement differ between displaced and host populations. While this would have been the ideal scenario in this pilot test, we were unable to test such differences with the datasets that were available after our review of the empirical data. As a result, we were forced to work within the constraints of the data at hand. As we made use of a dataset that interviewed residents of an IDP camp, it renders null the proper distinction between displaced and non-displaced, or host populations, as all respondents were effectively displaced. Our choice was instead to make use of questions in the survey which looked at

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<sup>17</sup> This Chapter was conducted by Kristian Hoelscher from PRIO and Svein Erik Stave and Huafeng Zhang, from FAFO.

<sup>18</sup> Data for a survey is also available from 2007 but data was deemed to be better suited to this analysis in the 2005 version.

time since displacement; and whether people were displaced due to war or conflict<sup>19</sup>. This allows us to empirically assess certain differences between displaced and ‘non-displaced’ groups, and how certain costs are borne by these groups.

We acknowledge that this distinction of displaced and ‘non-displaced’ populations must be used with some qualification, and we cannot distinguish between displaced and non-displaced persons per se. We instead use the distinction between those who report that they have (or have not) been displaced recently or due to violence, and use this as the basis to proxy displaced from non-displaced populations. One may envisage that more recently or conflict-displaced populations may bear greater costs when they move. These different costs may *resemble* differences between displaced and non-displaced populations. While this certainly is less than an ideal means to measure these distinct populations, and has some clear problems with face validity, it serves to illustrate the type of innovative use of the methodology outlined in this document when applied to existing data sources. With our operationalization of these two groups, we aim to show how monetary and non-monetary costs differ between groups that may differ to the degree which they have suffered through forced displacement.

The quantitative data set used in this pilot test is regarded as quite ‘typical’ for the type of data that can be expected to exist on displaced populations. Hence, the data, and in particular their imperfectness with respect to fitting directly into the methodology, should provide valuable information on the model design and the needs to complement typical survey data with other types of existing data, such as national statistics and qualitative information. Another aspect is to assess whether one should conduct specially designed surveys to complement the existing data in order to preserve a minimum theoretical validity of the model. If this methodology is to be implemented to the degree that we can gain a valid and complete depiction of the economic and non-economic costs

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<sup>19</sup> Specifically the question here asks; ‘Has ... ever had to move from his / her usual place of residence because of war or war like events or because of government orders?’. While this still leaves open questions regarding how we disentangle the costs of violence and the costs of displacement, we are still able to determine recently displaced or those displaced due to conflict from those who did not report as being displaced recently or because of violence.

to displacement, it is likely that bespoke surveys will need to be designed and implemented in forced displacement contexts.

The limited scope of this pilot test did not allow a full scale estimation of the total costs of displacement in Northern Uganda. Many of the types of data outlined in the methodology document that should be considered when determining costs of displacement are simply not available at this time with existing datasets<sup>20</sup>. Given this, however, the Northern Ugandan context serves as a typical case of forced displacement to which we can initially apply the methodology developed. In reviewing the available data across a number of displacement contexts, we have deemed this to be most fruitful. Despite this, we have still been required to limit our analysis to a select number of variables which we can adequately operationalize and test. As such many of the aspects of the methodology costing forced displacement must be left out due to a paucity of data<sup>21</sup>.

This reflects the challenges of applying off-the-shelf data sources to a comprehensive and theoretically rigorous methodology, and the extent to which existing data sources can be employed to measure the indicators set out in the methodology document. In our review of the available data for the Northern Ugandan and other cases of forced displacement, there is a general trend to gather survey data principally to investigate the social and economic effects on displaced populations. Surveys of individuals in host populations are almost entirely absent in the data that we have perused. While we are unable to measure the displaced from non-displaced populations as such, we instead focus on validly measuring how costs differ for recently displaced or war displaced populations in IDP camps.

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<sup>20</sup> While we make use of the Northern Ugandan dataset, several others available at Fafo in other displacement contexts contained similar information. Likewise, other sources of data on displacement in Northern Ugandan were generally not as complete as the Fafo data. We therefore maintain that the data and analysis presented here represent what can realistically be expected when using off-the-shelf data sources.

<sup>21</sup> This refers, for example, to the lack of a simple non-displaced comparison population, and the ability to calculate costs for host populations.

We must reiterate that this analysis employs a dataset which was collected for purposes entirely different to the aims of the methodology outlined in this document. Fafo has expertise in managing large household surveys on living conditions, often in conflict affected areas where there are sizeable displaced populations. Given this, we have been able to utilise certain variables to create simplified models based on the more comprehensive methodology presented in this document. While we acknowledge this pilot test trades off the comprehensiveness of the methodology outlined in this document, this serves to illustrate the challenge of using pre-existing data.

We have been able to utilise a data set with information primarily on the displaced population in IDP camps, but the survey design allows us to identify respondents that report whether they have been displaced by conflict, or displaced in the past 3 years.. We are able to estimate a regression in which the dependent variable is the economic outcome of interest for individuals in the sample.

We base our analyses around equation 1 in the methodology document, namely:

$$y_{it} = \alpha + x'_{it}\beta + \delta D_i + u_{it} \quad (1)$$

Where  $y_{it}$  is the economic outcome of interest for individual  $i$  at time  $t$ , where  $t$  in this case refers to some point after the start of the displacement process;  $x_{it}$  is a vector of exogenous and observable individual (or household) characteristics for this individual;  $D_i$  is an indicator of displacement status (i.e. displaced recently or due to violence = 1; otherwise = 0); and  $u_{it}$  is the error term.<sup>22</sup> Expanding this further, we can also include in some of our models other variables which may affect economic outcomes. Based on available data, we are able to consider the effects of receiving aid; the effects of violence in the current environment; and the role of remittances.

As expected, the survey data we have at our disposal is somewhat limited in that it is not designed to measure many of the variables that are highlighted in the methodology. As such, this pilot testing stage has been intentionally designed to report simplified findings that are indicative of the types of information and analysis that are available

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<sup>22</sup> The error term captures all other factors that influence the dependent variable ( $y_{it}$ ) other than the regressors.

when using off-the-shelf datasets. Our approach has been to focus on the effects of displacement primarily on the *displaced population*, but also try to identify some differences between displaced persons that may yield some insights into differences between displaced and non-displaced populations.<sup>23</sup> They are measured here at both the household and individual level and several caveats apply to the analysis that we present here.

## 7.2 Data adjustments

### 7.2.1 The data source

The Northern Uganda IDP Profiling Survey (NUIDP) was conducted by Fafo in June 2005. Two main questionnaires were used to collect the data: (i) A household questionnaire that covers the characteristics of the household and its individual members on housing, demographic characteristics, education, household economy, health and displacement, and (ii) A randomly selected individual (RSI) questionnaire that covers the characteristics of the adult population, 15 years of age and above, on issues related to displacement, health and the social and political situation.<sup>24</sup>

The target population for the NUIDP survey was all residents in IDP camps in Gulu, Kitgum and Pader in June 2005. The sample is based on residency, and thus any household living within the camps at the time of the survey should have a probability for being included in the survey. The total survey sample was 3,160 households, divided by 1,060 households per district. The total response rate was 74 per cent.<sup>25</sup>

The sample of the survey is of a comparatively standard, two-stage cluster design. The first stage was a standard PPS (probability proportional to size) sample, based on lists of the IDP populations in the three districts. In Kitgum, all the camps were included, while in Gulu and Pader all large camps were included, and a sample of the smaller

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<sup>23</sup> This essentially assumes that those displaced more than 3 years prior to the survey; or those not displaced due to conflict may have been able to rebuild livelihoods to a greater degree or had their livelihoods less disrupted than recently or war displaced populations.

<sup>24</sup> The questionnaires are included in appendix A and B

<sup>25</sup> We cannot be certain as to the reasons for the 26% non-response rate in this case, but acknowledge the potential for some type of selection bias.



camps was drawn. In this first stage, the numbers of selection areas in each camp were determined. Each selection area was a cluster of four households.'

### **7.2.2 Displacement Status**

One of the goals of the methodology document was to create separate cost estimations of forced displacement for different populations. Despite best efforts to gather data from a range of sources, we are forced by available data to look at IDP populations and operationalize extent of displacement in a manner that is less than ideal and has certain concerns regarding its face validity. We measure displacement in three ways, two individually and one at the household level. At the individual level we measure (i) whether the individual was displaced due to war; and (ii) whether the individual has been displaced in the past three years, a period between 2001 and 2005 which experienced significant displacement. At the household level we measure whether one or more members of the household have moved due to war.

We therefore consider those who did not move due to war or have not moved in the three years prior to the survey likely to be either those which have been established in IDP camps, or have been less likely to move due to forced displacement. We consider that less recently displaced populations may have had time to rebuild livelihoods since their displacement; and those who did not move due to conflict or violence may have had greater ability to transport assets or to have suffered less in terms of material or capital loss from their displacement. While we acknowledge this does not separate between host and displaced populations, and may be an imperfect operationalization of 'severely displaced' versus 'moderately-displaced' persons, it is currently the best means to differentiate between the extent of displacement that this data allows. Inclusion of these coefficients therefore allows us to analyse how the *extent or severity of displacement* affects economic and non-economic outcomes in populations in IDP camps in Northern Uganda.

### **7.2.3 Measures of Economic and non-economic 'costs'**

We employ individual and household data from our survey. For our individual level analyses we use individual income as the dependent measure. For households, we use a

series of other economic and non-economic measures that were permitted by the data available.

#### **7.2.4 Income**

We include individual income as our economic variable of interest for our individual level analysis. This is operationalized as total income earned in the past month, in Ugandan shillings. Additionally for our household level analysis we make use of measures of total household income in the past month, and household income per household member.

#### **7.2.5 Savings**

Another measure of economic security that may be affected by displacement is the access to some form of savings or credit. As displacement can disrupt social ties networks, access to savings clubs or other forms of risk sharing within communities may be limited or absent. We operationalize a household as having access to savings if one or more members of the household are either: (i) a member of a savings club, and/or: (ii) owns a savings account. This represents in some form whether or not an economic safety net is in place.

#### **7.2.6 'Credit'**

A third way to measure economic security is through access to some type of line of credit. Credit enables productive investment while also acting as a safety net in difficult circumstances. One question asked in the Northern Uganda Household Survey regarded the ability for a household to access money *at short notice*. This measure not only assessing whether the household has any form of savings, but also the ability to access finance through social networks, the sale of assets or other means. The question asks: 'If your household had a sudden need for 20,000 Ugandan Shillings would you be able to raise the money within a week? '.

#### **7.2.7 Livestock and assets**

We also look at other assets the household may have access to or own. We utilise questions in the household survey to create dummy variables for livestock and asset ownership. The livestock variable measures whether or not a household owns any animals (cattle, pigs, sheep, poultry, whether the household owns any livestock or not; or

whether they own any of three different kinds of consumer durables – transport (bike, motorcycle etc), communications (radio, cell phone), and household (stove, TV etc). For this analysis we have grouped these three types of consumer durables as ‘assets’, as one might expect that ownership of these assets is correlated with ownership of others (and with income). In future analyses one can separate these out if a more precise dollar valuation is required.

### 7.2.8 Consumption smoothing

We can also test alternative variables deriving from the questionnaire that measure non-monetary outcomes which may be used to identify other costs that may be missed by such income based measures. Consumption smoothing may represent a means to cope with greater hardship. The Uganda household survey measures several ways which people may alter their consumption, which we collapse into a dummy variable if households partake in one or more forms of substitution on a *daily* basis<sup>26</sup>.

### 7.2.9 Pre-Displacement characteristics

We do not have for the current dataset a direct measure to assess pre-displacement characteristics which may influence income earning potential<sup>27</sup>. To partly compensate for this, we are though able to use current and previous skills to infer income earning capabilities possessed by individuals.<sup>28</sup> We do this by creating a ‘skills and capabilities’ dummy if individuals have experience with some kind of (income earning) skill (e.g. blacksmith, crafting, tailoring etc). Individuals were asked if 1) they had had experience at a particular skill, but *not* in the last year; and 2) if they had experience at a skill in the last year. For response 1) we interpret this as an indication of whether respondents have a

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<sup>26</sup> Forms of substitutive or coping behavior include: Relying on less preferred and less expensive food; Borrowing food, or borrow money to buy food; Purchasing food on credit; Relying on help from relatives or friends outside household; Limiting portions at mealtimes; Limiting adult’s intake to ensure that children get more; Reducing number of meals eaten a day; Skipping whole days without eating; Selling items to get resources to buy food?

<sup>27</sup> Ideally in this survey, a measure of pre-displacement income would be desirable to allow calculation of absolute and relative declines in income due to displacement.

<sup>28</sup> We acknowledge the real potential for skills to be unused due to a lack of available employment, capital or other factors. In the absence of pre-displacement income data, however, we must assume skills will be related with wage generating employment.

past skill that they currently do not use, and infer that this is an indicator of past income earning potential. While imperfect this is our best method to control for pre-displacement income given the current dataset. For response 2), we regard this as an indicator of current skills which may increase income earning potential currently have or use some kind of skill. While this is clearly a limited measure, it does separate individuals who have had, or currently have, some kind of income earning skills from those who have never had any; as well as reflect the realities of working with many datasets that lack complete information of the type outlined in the methodology document.

We also use a measure of perceived economic hardship as a means to measure 'pre-displacement household income'. A question asks: 'Since when has the economic situation of your household been so difficult?'. We create a dummy variable where a 1 indicates that it has been difficult before or after 2001, a year where much of the displacement began. We assume that as displacement is likely to cause some form of economic hardship, most households will have been negatively affected since 2001. Those who were poorer prior to displacement will have answered that their economic hardship has occurred prior to 2001. Our dummy is coded 1 for households whose hardship began after major fighting started (i.e. since 2001), and 0 for households whose hardship began prior to 2001. We might expect that there is a positive relationship between prior economic hardship and current economic status, there would be a significant positive relationship between this variable and measures of hardship<sup>29</sup>.

### **7.2.10 Household and individual characteristics**

We also control for a series of individual and household characteristics which will affect income earning and other economic and non-economic outcomes. At the individual level, we control for: age, gender, marital status, highest level of education, the gender of the household head, and household size. At the household level, we control for the size of the household, the gender of the household head. We additionally control for how the current security or insecurity may affect economic outcomes for displaced persons. We

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<sup>29</sup> We would expect that those who score zero on the prior hardship variable – those whose hardship has existed prior to 2001 – would be likely to have lower incomes. Those households coded as a 1 - who have found it more difficult only since 2001 - are more likely to have higher incomes.

are able to include variables which measure whether there is regular (at least once per week) gunfire in the neighbourhood, or whether any member of the household has been the victim of any form of crime or violence in the past month.

**Table 13 – Descriptive Statistics for Individual and Household level variables**

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Individual</i>					
total individual income	6841	5130,20	26081,45	0	900000
age	12690	18,37	16,51	0	97
age squared	12690	610,16	1036,54	0	9409
female	12691	0,51	0,50	0	1
married	7190	0,48	0,50	0	1
education (yrs)	12461	1,48	0,87	0	3
female headed households	12867	0,23	0,42	0	1
Household size	12865	6,89	2,85	1	32
displaced due to conflict	12335	0,75	0,44	0	1
displaced in last 3 yrs	12421	0,21	0,41	0	1
skills	7211	0,48	0,50	0	1
skills (previous)	7211	0,66	0,48	0	1
<i>Household</i>					
household income	2159	16255,53	51376,42	0	912000
income per HH member	2159	3323,30	12762,80	0	345200
could manage a sudden need	2181	0,16	0,36	0	1
employs substitute activity	2187	0,73	0,44	0	1
access to savings	2109	0,07	0,25	0	1
serious illness in household	2159	0,18	0,38	0	1
female headed households	2227	0,25	0,44	0	1
Ae of household head	2218	41,09	14,87	14	97
household size	2229	5,77	2,55	1	32
victim of violence in household	2218	0,14	0,35	0	1
weapons fired near home	2197	0,40	0,49	0	1
experienced previous hardship	1996	0,53	0,50	0	1
member(s) of household displaced	2936	0,64	0,48	0	1
household owns assets	2186	0,40	0,49	0	1
household owns livestock	2936	0,16	0,37	0	1
household receives remittances	2936	0,02	0,15	0	1
household receives food aid	2190	0,80	0,40	0	1

We display our dependent and independent measures for individual and household levels of analysis in table 13. For individual level analyses<sup>30</sup>, average individual income

<sup>30</sup> Note that the smaller sample size is due to children being excluded from questions concerning income.

in the previous month was 5130 shillings, yet varied from no income up to 900,000. Average age was only 18, and the sample was roughly evenly split between males and females and married and unmarried persons. Almost three quarters had moved due to conflict, and 21% had moved in the past three years. Interestingly nearly 2 thirds of the sample had some kind of skill used previously, yet less than half said they had a skill used in the past year.

For households, we see that average household income was 16,255 shillings per month, which ranged from no income up to over 900,000 shillings; and average income per household member was 3323 shillings per month. Of the almost 3000 households who responded nearly two thirds had at least one family member displaced by conflict. It seems clear that few households have access to savings (6%), remittances (2%) or could manage a sudden financial need (15%); and 73% depend on some form of consumption smoothing and 80% rely on food aid.

### 7.3 Data analysis

The survey consists of sampling 3,160 households in Northern Uganda in 2005. Data was stratified and clustered with survey selection areas as the PSU; and expectancy weights were also used based on the original Fafo report.<sup>31</sup> We run a total of 14 models in this pilot test. OLS (Models 1-4, 9-10) and Logistic (5-8, 11-14) Regression is used to analyse the survey data. Coefficients and standard errors are reported for models 1-4, while Odds ratios and Linearized standard errors are presented for models 5-8.

Table 14 shows the effect of displacement on individuals' total income in the past month. Model 1 runs a model of individual and household characteristics, and displacement dummies; model 2 includes additional variables for past and current livelihood skills. As income is our key dependent variable, we exclude children under 12 who are unlikely to be engaged in paid employment. We take this as an indication of current economic security, and a way to initially assess the costs of displacement. We use the variable 'war move', indicating those individuals who have reported to have

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<sup>31</sup> Additional information about survey design, stratification and expectancy weighting is listed in Appendix One of the Northern Uganda Internally Displaced Persons Profiling Study, available at: [http://www.fafo.no/ais/africa/uganda/IDP\\_uganda\\_2005.pdf](http://www.fafo.no/ais/africa/uganda/IDP_uganda_2005.pdf)

experienced displacement due to war or violence, to differentiate between those displaced due to violence and those who were not. Further, a variable on the time since displacement is included, a dummy measuring whether movement has occurred in the three years prior to the survey– a period between 2001 and 2005 which was characterised by of intense conflict in Northern Uganda.

**Table 14 – Individual Income**

Variable	total_income (1)	total_income (2)
age	616.3***	551.9**
	-211,7	-220,7
age squared	-5.613***	-4.864**
	-2,088	-2,125
female	-1,027	-941,1
	-1,104	-1,116
married	5,467**	4,955**
	-2,259	-2,236
education (yrs)	8,006***	7,631***
	-1,779	-1,724
female headed households	-1,14	-1,452
	-1,273	-1,313
Household size	-378.3**	-380.4**
	-164,7	-156,7
displaced due to conflict	-2,625+	-1,831
	-1,75	-1,817
displaced in last 3 yrs	-1,909+	-2,365*
	-1,233	-1,295
skills		4,803***
		-1,436
skills (previous)		385,6
		-1,966
Constant	-16,911***	-18,208***
	-5,989	-5,729
Observations	6,378	6,378
R-squared	0,056	0,062

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.10, + p<0.15

In model 1 we see that populations displaced due to war and those who have moved in the past 3 years have significantly lower monthly incomes (p<.15). Those who have moved due to war earn over 2,625 UGS a month less than those who haven't moved due

to conflict. Further, those moving in the three years before 2005 additionally earn nearly 2,000 UGS less than those who moved to the IDP camp in the years prior to 2001. In model 2, when adding controls for past and current livelihood skills which could plausibly increase income earning potential, we still see that those who have moved in the previous 3 years earned on average 2,365 Ugandan shillings (UGS) less in the previous month. Additionally, those who had moved because of war earned an average of 1,831 UGS less in the previous month (yet this difference was not statistically significant). Our household controls behave as expected, with income being higher for those of working ages (as indicated by the age and age squared variables), those who are married, those with higher educational attainment and for those with some income earning skill or capacity they have used in the past 12 months. There are no significant gender differences.

In Table 15 we test how several household level economic outcomes are affected by displacement. To measure displacement status we use a dummy indicating whether one or more member of the household has been displaced due to war. This is the measure which we were best able to utilise to reflect household displacement, as household members generally move together if they are required to move.<sup>32</sup>

Models 1 and 2 look at total household income and income per household member. We include a measure of hardship duration to account for past economic conditions that may affect household income, substituting this measure for the 'previous skills' variable that was used in the individual level analyses. We also include other economic indicators which may influence income, such as ownership of household assets or livestock, and whether or not a household receives remittances. We also control for household characteristics, and crime victimization and physical security controls.

Our results indicate that household displacement due to war is not significantly associated with lower total household income (model 3); but is significantly associated with lower per capita household income (model 4). This result is interesting and may be

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<sup>32</sup> We also used other measures, such as the total number of household members who were displaced, or whether the majority of household members were displaced. Both yielded similar results, with only minor differences.



driven by the fact that displaced households comprise a greater number of children or non wage-earning individuals. Those households which have experienced with one or more members displaced due to violence earn on average 1500 UGS per member less than households where it is reported that no members had been displaced as such. Households which are larger, female-headed and with younger household heads tend to earn significantly less per person.

We also test other non-income based measures of vulnerability due to displacement. Here we measure whether households are able to manage a sudden need for 20,000 shillings; whether they engage in some form of daily consumption smoothing or food substitution activity; whether any household member is a part of a savings club or owns any savings; and whether a household member experiences serious injury or illness.

**Table 15 – Household Income, Economic and Non-Economic Outcomes**

Variable	hincome (3)	incomep (4)	Sudden need (5)	Substitute activity (6)	Saving (7)	Illness (8)
<b>female headed households</b>	-5,304**	-1,123***	0.418***	1.586**	1.534+	1.125
	-2,136	(356.5)	(0.122)	(0.296)	(0.455)	(0.222)
<b>Age of household head</b>	-135.9**	-37.62***	0.993	0.999	1.002	1.030***
	(65.77)	(12.40)	(0.00726)	(0.00513)	(0.00932)	(0.00614)
<b>household size</b>	363.4	-257.6***	1.006	0.989	1.160***	0.890**
	(314.9)	(53.18)	(0.0367)	(0.0282)	(0.0575)	(0.0454)
<b>victim of violence in household</b>	8,216	1,015	1.455	0.872	0.927	1.360
	-7,68	-1,288	(0.427)	(0.195)	(0.422)	(0.293)
<b>weapons fired near home</b>	956.7	327.2	0.811	1.439**	0.674	1.026
	-3,078	(569.7)	(0.188)	(0.243)	(0.247)	(0.171)
<b>experienced previous hardship</b>	-700.9	76.91	0.868	1.049	0.902	0.760
	-2,429	(442.3)	(0.201)	(0.169)	(0.266)	(0.150)
<b>member(s) of household displaced</b>	-5,974	-1,512*	0.844	1.671***	0.724	1.660**
	-4,561	(898.1)	(0.282)	(0.310)	(0.314)	(0.404)
<b>household owns assets</b>	14,140***	2,521***				
	-2,435	(431.5)				
<b>household owns livestock</b>	13,839***	2,511***				
	-5,082	(897.8)				
<b>household receives remittances</b>	2,348	1,06				
	-3,966	(944.0)				
<b>income per HH member</b>			1.000**	1.000+	1.000***	1.000
			(1.65e-05)	(1.28e-05)	(1.44e-05)	(8.28e-06)
<b>Constant</b>	12,904***	5,164***	0.160***	1.613+	0.0236***	0.0971***
	-4,89	(981.3)	(0.0782)	(0.534)	(0.0123)	(0.0462)
Observations	1,929	1,929	1,929	1,93	1,865	1,902
R-squared	0.088	0.089				

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.10, + p<0.15

Our results indicate that when controlling for previous hardship and other household characteristics, households that have experienced displacement are: less likely to manage a sudden need for 20,000 UGS (model 5) or have any form of savings (model 7), though these differences are non-significant at  $p < .15$ . In model 6, however, we see that displaced households are significantly more likely to engage in regular consumption smoothing activities. Displaced households are 67% more likely than non-displaced households to engage on a daily basis in activities such as reducing portions, eating less desirable foods, or eating less frequently.

**Table 16 – Food Aid receipt as alternative measure of displacement/vulnerability**

VARIABLES	hincome (9)	incomep (10)	sudden need (11)	substitute activity (12)	Saving (13)	illness (14)
<b>female headed households</b>	-5,226**	-1,108***	0.417***	1.588**	1.555+	1,132
<b>Age of household head</b>	-2,111	-349,3	-0,122	-0,298	-0,472	-0,221
<b>household size</b>	-102.9*	-30.45**	0,992	1,00	1,00	1.028***
<b>victim of violence in household</b>	-60,09	-11,83	-0,00744	-0,00524	-0,00981	-0,00595
<b>weapons fired near home</b>	442,3	-243.8***	0,995	1,004	1.145***	0.892**
<b>experienced previous hardship</b>	-325,2	-56,31	-0,0382	-0,0295	-0,0563	-0,0457
<b>member(s) of household displaced</b>	8,055	981,8	1,477	0,867	1,018	1,362
<b>household owns assets</b>	-7,446	-1,243	-0,427	-0,19	-0,427	-0,295
<b>household owns livestock</b>	1,319	396,6	0,782	1.507**	0,606	1,03
<b>household receives remittances</b>	-2,893	-538,4	-0,185	-0,256	-0,225	-0,172
<b>household receives food aid</b>	-1,237	-42,78	0,88	1,041	0,908	0,78
	-2,542	-459,6	-0,204	-0,167	-0,27	-0,153
	14,607***	2,621***				
	-2,548	-449,2				
	13,942***	2,531***				
	-5,037	-889,9				
	1,215	809,7				
	-3,976	-928,4				
			1.000***	1.000*	1.000***	1,00
			-1,59E-05	-1,34E-05	-1,34E-05	-8,06E-06
	-8,694*	-1,822**	1.623+	0.557***	5.294***	1,221
	-5,069	-855,5	-0,52	-0,111	-3,294	-0,275
Constant	12,802**	4,933***	0.104***	3.524***	0.00479***	0.132***
	-5,471	-940	-0,044	-1,222	-0,00385	-0,0603
Observations	1,929	1,929	1,927	1,93	1,865	1,90
R-squared	0,093	0,094				

Standard errors in parentheses

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.10$ , +  $p < 0.15$

Furthermore, we also test the effects of displacement on health outcomes in Model 8. Our measure is a dichotomous measure asking whether individuals had experienced a serious physical or mental injury or disability<sup>33</sup>. We see that those households who have had one or more of their members move because of conflict are significantly more likely to have one or more members experience some physical or mental injury or illness. Our results indicate that these households are over 65% more likely to have a member experiencing some type of serious illness or injury. We are unable to infer how many household members experience illness, the type of injury or illness, nor what the ages of the household members are. It does appear though that displacement has a significant and sizeable effect on illness and injury among households in our sample.

We also test an alternative measure of displacement as outlined in the methodology document. As recently displaced households may be more dependent on support from NGOs rather than those who do not identify as displaced, we use food-aid receipt as a proxy of displacement status. We assess whether those households which receive food aid from international organizations we run the same 6 models (i.e. 3-8) with the dummy variable whether the household currently receives food aid replacing the variable on household displacement. Using this alternative measure yields similar results. Those households currently receiving food aid are significantly more likely to have lower total household income (model 9) and lower income per household member (model 10). Households which receive food aid are also more likely to be able to manage a sudden need of 20,000 shillings (model 11), less likely to engage in substitute activity or consumption smoothing (model12)<sup>34</sup>, and more likely to have access to some form of savings (Model 13).

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<sup>33</sup>Does ... suffer from any physical or psychological illness of prolonged nature, or any afflictions due to an injury, due to a handicap, due to age or due to traumas caused by war?

<sup>34</sup> This is possibly due to these households' being provided with food aid, and their ability to sell or exchange this to raise money in an emergency.

## 7.4 Conclusions

The primary objective of this pilot study was to test the practical applicability of the methodology for estimating the costs of displacement using a typical real-world dataset describing living-conditions among IDP's in Northern Uganda.

A general conclusion of the test is that data collected in typical living-condition surveys provide a good basis for generating useful results from the methodology. However, by using data from surveys not designed particularly to meet the requirements of the methodology, a key challenge is to combine different data to develop indicators that can substitute for the 'ideal' variables described in the methodology. In the case that has been tested here, there are significant gaps between the variables we were able to test and the ideal situation presented in the methodology document. While for some variables substitution is quite straight forward and unproblematic with regards to the validity of the substitute data, (e.g. just replacing ownership of assets described in the methodology with other assets assumed to correlate with the 'ideal' assets), for some variables this procedure of substitution is more difficult and unreliable, (e.g. using change in skills performance [pre- and post-displacement] to indicate past income earning potential).

The general conclusion is however that if typical living-conditions data are available for an area or a population of interest, they should, at least in combination with complementary secondary data such as national statistics and more qualitative information, be a worthwhile initial starting point to begin quantifying the costs of displacement. In this pilot test we were able to indicate that for populations in IDP camps, the costs of those reporting as recently displaced or displaced due to conflict are higher than other IDP camp residents. These insights can only be improved upon and refined as access to data improves. While our analysis falls short of the desired goals of this methodology, we suggest they meet some minimum data requirement standards for the methodology, and produce initial results of some quality. That this was the best available data which we could utilise reiterates the need to manage expectations of what can be gained without primary data collection. A key premise is that the methodology has a certain degree of flexibility with respect to which indicators to be used to cover the various variables of the methodology.

As living-conditions surveys are typically designed to collect data on one target population in one geographical area, a greater challenge is to cover all four dimensions of the methodology based on a single living-condition survey. The problem is quite obvious in the data used in this test study, where the target population is IDPs in camps. This challenge was somewhat expected as data from displacement areas are generally collected by actors concerned with the displaced populations. One can however hope that the methodological concept developed by RSC will contribute to direct more attention to data collection also on the host populations and on the places of origin to provide a more comprehensive understanding of the displacement process in a given case.

Another key challenge, also indicated by the characteristics of the data used in this test is how to distinguish between displaced and non-displaced populations and even place of origin and place of displacement when it comes to IDPs migrating over shorter distances. This challenge is however of particular concern in Northern Uganda where the displaced populations typically live very close to their places of origin, and should be more manageable in other cases.

There can be several ways to deal with these challenges. One is not to try to cover all four dimensions of the methodology in every case planned for the main study on the costs of displacement, but instead compile the results from single dimensions (parts) of the methodology from different cases (locations) into an overall result for the costs of displacement in general. If all four dimensions of the RSC methodology are to be covered in each case study, there will probably be a need to collect some amount of primary data to cover the most significant gaps not filled properly by using existing data sources. One could also consider conducting a specially designed survey to cover all four dimensions of the methodology in one or a few select areas. This would of course produce the most valid and reliable data, and would be extremely valuable in verifying the results from cases based on secondary data.

## **7.5 Concluding remarks**

There are several challenges that we have identified in this process that are likely to exist in most cases where currently existing data is employed to test the methodology outlined here. Fundamentally, as data is collected for different purposes, several key indicators

identified by the methodology are likely to be absent. This is especially true regarding attempts to highlight costs for different groups. The proposed methodology goes into considerable detail identifying baseline groups and modelling differential effects of displacement on different populations. While this is methodologically and theoretically a significant step forward in understanding the costs of displacement with greater finesse, implementing such an approach is made difficult where collection of data for other purposes is attempted to be applied. Given that without considerable resources being made available for primary data collection, this is the situation that will need to be worked with.<sup>35</sup>

The benefits of this pilot test are fourfold. Firstly, this approach is indicative of the types of challenges and methodological or conceptual adjustments required when costing forced displacement using existing data. It forces us to be open regarding how we conceptualise and measure costs, and how we might value them.

Second, it highlights the types of information typically available; and the ways which variables of interest such as unitary costs for assets, income etc. may need to be adjusted to include other non-monetary indicators of economic or human insecurity, particularly where project specific data collection has not taken place.

Third, it highlights where the methodology document may be ‘overreaching’ or asking for information that is too specific to be gathered in readily available datasets. If wishing to pursue such a methodology, there may be worth in combining insights from several different displacement contexts where data availability may allow exploration of different aspects of the methodology (i.e. costs accruing to the displaced population in one instance, and the host country in another separate instance). We do not see this as an ideal situation, however, as costs to different populations (host, displaced etc) will clearly differ depending on the displacement context. While such insights would not prove useful when attempting to collate information on costs of a specific displacement situation, there would be some value in comparing across cases the costs to certain populations using for

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<sup>35</sup> Note that we do not claim to have conducted a flawless pilot test of this data. There may be other creative ways of employing existing data such as this to better operationalize and test some of the concepts

example secondary data or qualitative sources if there are systematic deficiencies in data collection from certain populations, such as host communities. Cross-case analysis may yield insights as to the estimated costs to certain groups in displacement contexts which share certain key similarities, but for which there is a lack of empirical data.

Fourth, while our interviews are undertaken in IDP camps, and focus is on the displaced populations, we attempt to broadly identify whether differences exist for those who may have been recently displaced or displaced due to conflict, and those who do not report as being displaced. The results of the pilot testing indicate that in many instances populations displaced due to armed conflict, and those more recently displaced, bear greater costs than IDP camp residents who have not moved recently or moved due to violence. While we are unable from the data at hand able to calculate the overall dollar costs of displacement, we are able to begin to quantify in some meaningful ways how displaced populations are affected in economic and non-economic terms, and how there are differences amongst IDP residents in how displacement has affected these outcomes.

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