

## Human Trafficking and Displacement in South Asia: An Econometric Analysis

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### Abstract

Human trafficking has received increased media and national attention. Despite concerted efforts to combat human trafficking, the trade in persons persists and in fact continues to grow. This paper describes the relationship and distinction between trafficking and ethnic fragmentation, conflict, internally displaced person by different measures of control. To explain the relationship between these factors, this study uses a Probit regression model. It appears that ethnic conflict leads the internal displacement of individuals from networks of family and community, and their access to economic and social safety nets.

**Keywords:** Trafficking, Displacement, Probit, Conflict, Econometrics.

### I. Introduction

Human trafficking has an impact on the individuals. More than 130 countries are affected by human trafficking. Globally, 29 percent of human trafficking occurs after crossing a border. Human traffickers target economic migrants and those migrating because of lack of education, political and climate instability, discrimination and conflict (UN GIFT<sup>1</sup>).

Every stage of the trafficking process can involve physical, sexual and psychological abuse and violence, deprivation and torture, the forced use of substances, manipulation, economic exploitation and abusive working and living conditions. Some push factors behind asylum migration, namely (i) repression of minorities or ethnic conflict, (ii) civil war, (iii) high numbers of internally displaced persons (IDPs) relative to total population, (iv) poverty as reflected in low per capita income, (v) low position on the Human Development Index (HDI), (vi) low life expectancy, (vii) high population density and (viii) high adult literacy rate; mirror closely the push factors that induce trafficking, namely (i) poverty, (ii) lack of educational opportunities and (iii) armed conflict (Castles and Loughna<sup>2</sup>; Akee *et al.*<sup>3</sup>). Perry and McEwing<sup>4</sup> have found that social determinants are central to the processes that mitigate and facilitate the sale and exploitation of women and children in Southeast Asia. Specifically, the facilitation of education and empowerment, along with the creation and enforcement of effective policies, could lessen the vulnerability of women and children to modern-day slavery. Koettl<sup>5</sup> illustrated that whenever people are forced or lured into exploitation – no matter if movement of victims is involved – it is considered human trafficking. Arhin<sup>6</sup> suggested new conceptual tools to understand the dynamics and relationships between trafficking in persons and diaspora networks. A diaspora approach provides a more nuanced and in-depth mode of analyzing human-trafficking cases, and takes into account the intersections between traffickers, victims and diaspora communities within the human-trafficking process.

In South Asia, there are many countries used as origin, transit and destination countries for trafficking. Victims are sent to other countries in the region and to other parts of the world. Even more prevalent is the movement of persons within the countries for exploitation in various forms. Even

though there are no definite numbers of victims, it is estimated that 150,000 victims are trafficked from the South Asia region annually (WDI<sup>7</sup>). Many studies have revealed that trafficking in women and children is on the rise in Asia. Bangladesh is a source and transit country for men, women, and children subjected to trafficking in persons, specifically forced labor and forced prostitution. A significant share of Bangladeshi victims are men recruited for work overseas with fraudulent employment offers who are subsequently exploited under conditions of forced labor or debt bondage. Children both boys and girls are trafficked within Bangladesh for commercial sexual exploitation, bonded labor, and forced labor. In Nepal, Afghanistan, Pakistan and the Philippines, displaced children are at risk of child labor, trafficking and forced recruitment (WDI<sup>7</sup>). The peculiar situation in South Asia is that communities of same ethnic group are spread across the international borders. As the displacements in Afghanistan and Myanmar have direct implications for the broader South Asian context. Pakistan, India and Bangladesh, three important countries of the subcontinent, face displacements simultaneously due to development, conflicts and natural disasters. Pakistan, Afghanistan and India had the highest number of reported IDPs, accounting for more than a third of the regions displaced population.

Any economic or social policy that is deemed to confer additional benefits purely to a particular ethnic group can be a cause for dissent and conflict. An additional cause of ethnic conflict stems from the inability of international, national and regional powers to adequately provide security for minority groups. However, it can be argued that ethnic fragmentation (or the share of an ethnic group in the total population) within a country does not necessarily imply dissent even in the face of perceived unjust economic and social policies (Akee *et al.*<sup>3</sup>). Lindstrom and Moore<sup>8</sup> in fact find support for the hypothesis that ethnic fragmentation is positively correlated with conflict. About 40 million people are displaced globally with 15 million refugees (UNHCR<sup>9</sup>). Therefore, the specific objectives of this study are: to determine the link between ethnic conflict and human trafficking, to determine the relationship between ethnic fragmentation and human trafficking, to assess the efficacy and relevance with the issues of displacement in South Asia.

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## II. Data and Methodology

To determine the relationship between internally displaced persons and refugees, ethnic fragmentation and conflict, data are collected from various sources described below. Data on incidence of trafficking are compiled from country-by-country descriptive accounts and the number of Internally Displaced Persons (IDPs) and IDP-like situations are data collected by United Nations High Commissioner for Refugees (UNHCR<sup>9</sup>). Conflict measures are collected from the Uppsala Conflict Data Program (UCDP)/International Peace Research Institute, Oslo (PRIO) Armed Conflict Dataset<sup>10</sup>. The Gross Domestic Product (GDP) and the landlocked indicator were obtained from the World Development Indicator (WDI<sup>7</sup>). From the review of literature this study found that trafficking is the binary response variable. The description of other variables is given below in the table.

**Table 1. Description of Variables**

Variable	Description of variable
<i>Human trafficking</i> trafficking	Incidence of trafficking(host-source country),(0/1)
<i>Fragmentation</i> ethnic	ethnic fractionalization index
religion	religious fractionalization index
language	language fractionalization index
<i>IDPs/Refugees</i> refugees/IDPs	refugee and internally displaced persons, (0/1)
<i>Conflict</i> cumulative intensity	Cumulative intensity level of conflict
intensity	intensity level of conflict: 1- minor, 2- war
count	Number of conflicts within a country

Here, a country is designated as a Host country for trafficked victims only if 747 cases were reported in the past year. Country host-source pairs of trafficking are coded from these above reports for the year 2015.

The variables fragmentation measures are taken from Akee *et al.*<sup>3</sup>, where fragmentation (ethnic, religious or linguistic) is defined as  $frag_j = 1 - \sum_{i=1}^N S_{ij}^2$ , where  $S_{ij}$  is the share of group  $i$ , ( $i = 1, 2, \dots, N$ ) in country  $j$ . Ethnic, religious and language fractionalization cover a larger range of countries and various aspects of fragmentation. As Akee *et al.*<sup>3</sup> discuss, these three indices are correlated and this study employs them separately in the estimations.

For various measures of conflict in our estimations, this study uses two measures that capture the intensity of conflict: (i) the cumulative intensity dummy takes into account the history of the conflict. It takes the value 0 if the conflict has resulted in less than 1,000 battle-related deaths

and 1 otherwise and (ii) the level intensity of conflict is measured by distinguishing between either a minor conflict or a war (where a minor conflict has less than 25 battle-related deaths per year for every year in the period, while a war is defined as 1 where more than 25 battle-related deaths per year for every year in the period). A count measures the number of conflicts within a country. Finally, a more complex measure is utilized that differentiates between the types of conflict into three categories.

To explain the behavior of a dichotomous dependent variable this study has to use a suitably chosen CDF. The estimating model that emerges from the normal CDF is popularly known as the Probit model (Greene<sup>11</sup>), uses binomial response variables. In the Probit model, the inverse standard normal distribution of the probability is modeled as a linear combination of the predictors. Considering a latent variable,  $y_i^* = X_i^T \beta + \varepsilon_i$ , this model linearly depends on  $X_i$  and the error term  $\varepsilon_i$ , here  $y_i = 1$  if the latent variable is positive and 0 otherwise, now the form is,  $y_i = \begin{cases} 0; & y_i^* < 0 \\ 1; & y_i^* > 0 \end{cases}$

The latent variable is interpreted as the utility difference between choosing  $y_i = 1$  and 0. The probability that can be derived from the latent variable and the decision  $y_i = 1$  rule.

$$\begin{aligned} p(y_i = 1|x_i) &= p(y_i^* > 0|x_i) \\ &= p(x_i^T \beta + \varepsilon_i > 0|x_i) \\ &= p(\varepsilon_i > -x_i^T \beta|x_i) \\ &= 1 - \Phi\left(\frac{-x_i^T \beta}{\sigma}\right) \\ &= \Phi\left(\frac{x_i^T \beta}{\sigma}\right) \end{aligned}$$

Assuming that the error term has a standard normal distribution,  $\varepsilon_i \sim N(0, 1)$ , we have the equation,  $\pi = \Phi(\eta_i)$ . Where  $\Phi$  is the standard normal CDF. The inverse transformation which gives the linear prediction as a function of the probability is,  $\eta_i = \Phi^{-1}(\pi)$ . The transformation function in the Probit model is the CDF of the standard normal distribution.

$$\begin{aligned} p(y_i = 1|x_i) &= \Phi\left(\frac{x_i^T \beta}{\sigma}\right) \\ &= \int_{-\infty}^{x_i^T \beta} \Phi(z) dz \end{aligned}$$

If the error term has a standard normal distribution, then it is the Probit model.

## III. Analyses and Results

To determine the link between ethnic conflicts and international trafficking, we estimate the direct effect of ethnic fragmentation, various types of external and internal conflicts, presence of IDPs/refugees in a source country on the incidence of trafficking between countries.

This model is presented below:

$$\begin{aligned} trafficking_{ij} &= \alpha_1 + \beta_1 frag_i + \beta_2 frag_i^2 \\ &\quad + \beta_3 refugee_{idp}_i \\ &\quad + \beta_4 conflict_i + \varepsilon_{ij} \end{aligned}$$

Where trafficking is the binary dependent variable for the incidence of trafficking from country *i* to country *j* (source *i* to host *j*). This variable takes the value 1 if an incidence of trafficking from country *i* to country *j* is reported and 0 otherwise. The variable *frag* measures fragmentation in the source country of trafficking. It is measured continuously from 0 to 1 while *frag*<sup>2</sup> is the squared value of the fragmentation variable. Three measures, ethnic, religious

and language fragmentation, are included in turn in the different regression specifications. The dummy variable *refugeeidp* indicates the presence of refugees as well as internally displaced persons in the source country. The variable *conflict* captures the various measures of conflict in a source country. This study includes these various measures in separate regression specifications for each fragmentation measure (ethnic, religious and linguistic).

**Table 2. Probit regression : Marginal Effects of Ethnic, Religion and Language Fragmentation**

Variables (Ethnic)	Estimated Coefficient [SD error]	Variables (Religion)	Estimated Coefficient [SD error]	Variables (Language)	Estimated Coefficient [SD error]
Ethnic	5.20* [2.12]	Religion	4.18** [1.58]	Language	8.93** [3.31]
Ethnic squared	-6.33** [2.43]	Religion squared	-5.89* [2.11]	Language squared	-9.64* [4.36]
Refugeeidp	1.08 [.61]	Refugeeidp	.28 [.53]	Refugeeidp	2.54* [1.08]
Cum-intensity	-.97 [.69]	Cum-intensity	-2.32 [1.84]	Cum-intensity	-3.92 [2.39]
Intensity	.75 [.53]	Intensity	5.81* [2.60]	Intensity	4.53 [2.91]
Count	-.19 [.14]	Count	.24 [.14]	Count	.42 [.25]

\*significant at 10%, \*\* significant at 5% and \*\*\* significant at 1% level of significance.

The impact of ethnic, religion, and language fragmentation on the incidence of trafficking have been estimated the various conflict measures. From the above table 2, it is illustrated that higher ethnic fragmentation increases the likelihood of trafficking from a country while the coefficient on the squared term on ethnic fragmentation is negative and significant under all the conflict measures. This implies that ethnic fragmentation increases the likelihood of trafficking but at a decreasing rate. A possible explanation of this result might be that, higher ethnic fragmentation allows middleman or traffickers to easily target members of different ethnic groups and take advantages of the limited information. A higher likelihood of trafficking is associated positively but insignificantly with a host country under the cumulative intensity, level of intensity and count measures of conflict. The presence of IDPs/refugees in the host country has positive impact the likelihood of trafficking.

## I. Conclusion

Human trafficking is an issue of major international discussion and concern. This study is an attempt to determine the relationship between ethnic, religious, fragmentation, and different types of conflict. In order to study the qualitative and binary response variable, probit regression model is used. By estimating the various conflict

measures this study found that ethnicity, religion, language, refugee status and level intensity are significant, and that matches with relevant literature (Akee *et al.*<sup>3</sup>, Arhin<sup>6</sup>).

Human trafficking involves transnational movement of people, one important related area of debate is internally displaced persons (IDPs). Another concern is ethnic conflicts. Trafficking for commercial sexual exploitation is the most virulent form of trafficking in the region. The movement of young girls from South Asian countries is common, taking place either between countries or within countries. There is further movement to the Middle East as well as other destinations. Internal displacement due to conflict in some countries, poverty and lack of employment opportunities increase the vulnerability to being trafficked.

Every stage of the trafficking process can involve physical, sexual and psychological abuse and violence, deprivation and torture, the forced use of substances, manipulation, economic exploitation and abusive working and living conditions. Unlike most other violent crime, trafficking usually involves prolonged and repeated trauma. The situation of IDPs has been more acute compared to refugees or migrants in the absence of protection from international organizations or states pursuing concrete policies in this regard.

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