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**WORKING PAPER 188/2020**

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The Evidence from the Migration Patterns in  
Bangladesh and Myanmar**

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**Price : Rs. 35**

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# **Are Human Rights and Economic Well-Being Substitutes? The Evidence from the Migration Patterns in Bangladesh and Myanmar**

**Ankan Ghosh and Zareena Begum Irfan**

## **Abstract**

*In the age of globalization international is an important phenomenon that we notice worldwide. International migration can happen for various reasons an there effect on the native country may be positive or negative and that is a matter of discussion. In this paper it is considered that migration happens for economic reason as well as social reasons. Economic reason may be better availability of jobs in other countries and a scope of greater income streams. Social factors include vulnerability in the native country due to political unrest, environmental damage factors and other social detentions in the native place. The paper discusses these factors as human rights, the unavailability of which will instigate people to migrate. The paper uses evidence from two countries- Bangladesh and Myanmar to see the same. A two country panel model was set up to get results which show that a trade-off between the aforementioned rights and economic variables exists.*

**Key words:** *Migration, migration, human rights, labours, socio-economic*

**JEL Codes:** *J7, J66, J61, F66, I3, Y4*

# Acknowledgement

*This study is an extension of the first author's master's dissertation at Madras School of Economics. The authors are indebted to Prof. Arunachalam, University of Madras and Prof. L Venkatachalam, MIDS for their valuable comments during the MA dissertation viva of the first author. We would also like to thank the participants and the conference committee of the International Conference on Migration "The Migrant and the State: From Colonialism to Neoliberalism" (Nov. 29 to Dec. 1, 2018), at the Centre for Development Practice and Research, Takshila Campus, Patna for their valuable feedback at the conference.*

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## **INTRODUCTION**

Nearly 258 million people stay in countries which are not their birth place which is an increase of as high as 49 percent which is 3.4 percent of inhabitants of the world (Global Migration Group, 2017). In the Sustainable Development Goals 2030 international migration is a major concern and demands what is called a well-managed migrant policy. In 2017, nearly 165 million migrants were hosted by high-income countries which stand for nearly 64 percent of total migrants. Out of the total migrants stated above 48.4 percent are women. In the same year, Asia and Europe were the origin of the most number of international migrants which is followed by Latin America and Caribbean. Inclusion of legal immigrants into mean-tested programmes of social citizenship is still partial and reversible (Bauböck 2006).

Traditionally, it was seen as a phenomenon resulting from lack of development. This is true, however we cannot ignore the fact that this also is a unsatisfactory and incomplete reasoning. This is because research shows that outmigration was not witnessed if the origin place experienced development. Also the consequences on the origin may not always be negative. This might well happen that international migration brings in foreign remittances that could be used for the development of the origin. Migration can sometimes become tools of development if they are managed and channelized in a proper way. However, migration and development has inter-linkages which is well discussed. From a Neo-Classical view migration was optimistic and is said to be the "optimal allocation of production factors to the benefit of both sending and receiving countries" (De Haas, 2010). In the same theory migrants are viewed as atomistic individuals who maximize utility but disregard other migration motives like economic and social motive. A dominant view in seeing migrants is as "agents" of change and innovation. This is because they are seen as a supply of foreign remittance but also of ideas and knowledge.

In this paper we have used migration as a proxy for revealed preference for human rights and economic well-being. We have in the beginning posed the question whether they are substitute or not. Human rights protection comes from various dimensions. The basic idea why people migrate questions such dimensions. Migration was conventionally considered as an economic phenomenon i.e. people migrate from one place to another because there is more scope of income and higher probability of job findings than in the origin. This in essence questions the presence of rights protection in the origin place. We have considered two countries which have much in common at the same time have differences that we will point out at a later point in the reading. The quality of human rights protection and economic well-being in the two countries would be analysed as substitutes with respect to determining patterns of migration. Human rights here should be including freedom of choice of occupation, rights of various ethnic groups and religious groups, educational facilities etc. Piper (2017) in his chapter on global governance of labour migration has said that migration governance has shifted from migration management towards an integrated rights based approach. The paper discusses how the international bodies like International Labour Organization have given importance to activism of "right". Migration has been an integral part of development economics and has been widely discussed throughout the economic literature. There are several views on how migration happens and its possible reasons, economic and non-economic. Lundquist and Massey (2005) in her paper on international labour migration and politics said that migration is a phenomenon whereby families "diversify risk" and market failures by sending out migrants to cross borders and work internationally. There exists a circular character of this type of migration. This paper mainly deals with international migration but notably Asis and Piper (2008) have purely worked on migration patterns in Asia and have seen that internal migration also suffers problems like brain drain, care drain, remittances and other social costs (Groenhout, 2012). General concerns on migration remains on what drives people to migrate. A more recent study by Facchini (2015) has discussed about these drivers among which notable

are income differences, distribution issues, climate change, migration network and policies. Hatton (2014) work on how the shift on migration research from the US later to Europe and now to other countries including OCED, is an interesting study to note.

In the context of this paper which discusses migration as a proxy of human rights, a paper by Mendola (2017) indicates how migration emerges from lack of social protection and that this protection is send back home by migrants. This is a study based at Mozambique points out migration is a source of social protection on migrant senders of the origin. In a poor developing backdrop, even though community groups are open, income risk and participation constraints may limit both access to informal associations and their effectiveness. Our main study focuses on two countries- Bangladesh and Myanmar. Call et. al. (2017) in his study based in Bangladesh has pointed out that climatic migration in Bangladesh shows evidence of disruption and not total displacement and this kind of migration is temporary in nature (Crisp, 2007). In the context of Myanmar the Rohingya migration is a major source of migration since the initial '80s. Mahmood et al (2016), in his paper discusses about Rohingya people condition and health status. Many Burmese migrants migrate to Bangladesh and Chan et. al. (2017) have discussed the health risks they pose in Bangladesh. Major source of international migrants are labour and refugee migration in the Southeast Asian region (Isarabhakdi, 2004). In this paper we are considering two countries i.e. Bangladesh and Myanmar and analyse their migration pattern to reach the desired objective. In the analysis we have considered two countries separately and later we have used a panel model to verify whether the results hold true or not.

## **BANGLADESH**

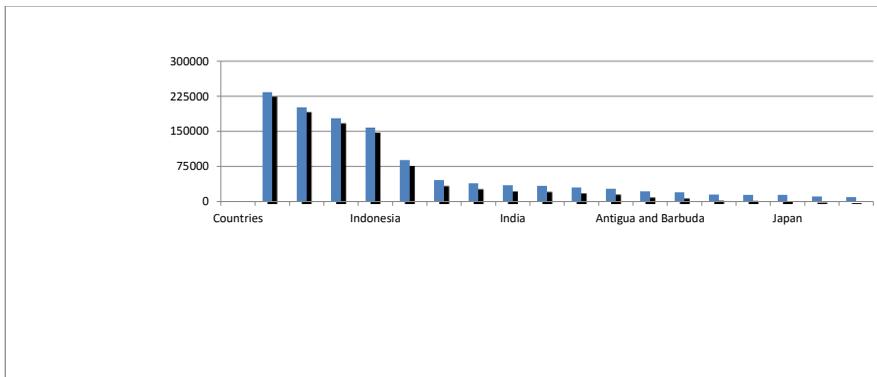
Bangladesh has made recent changes and development but still remains one of South Asia's poorest countries which highly skewed economic inequality existing in the country. It is endowed with perennial rivers

(Padma and others) and makes it a place good for agricultural and allied activities. However, Bangladesh has improved in the service sector and other sectors as well. Bangladesh has a wide history of migration starting from the time of its separation from India and establishment of East Pakistan. That time the cause of migration was mainly political and sometimes forceful. The next huge migration from Bangladesh to India was during 1971 September, when Bangladesh was fighting for freedom from Pakistan for becoming an independent nation. That time mostly Hindu migrants emigrated from Bangladesh to India due to social issues that they were allegedly facing or were expecting to face in Bangladesh. Keeping history apart, Bangladesh has shown high migration rates in recent times and these migrations are largely due to economic reasons and for better job opportunity that they are likely to get in other countries. It is seen that most of the migration from Bangladesh is towards the Middle Eastern Islamic countries, Oman, Qatar etc. and Western countries like Canada and US to name two major and of course India. It is not always that the immigration happens because Bangladeshis get employed in white-collared jobs in these countries but it is often seen that they get engaged in daily wage works like construction work, daily labor and even butchery. The working conditions are sometimes not favourable and many times they even come back cheated. Despite this, there is an increasing trend of Bangladeshis, including women to migrate from the country to work there.

A report by "bpb", 2015 has also looked into the international migration in Bangladesh in particular. This study says that every year 500000 Bengalis move out of the country. Out-migration increased to almost three million between 2005 and 2010 (Joarder and Miller, 2013). In the year 2008 alone, 875,000 migrant workers were recruited from Bangladesh. Of the out migrants the share of less skilled and more skilled laborers are huge. Approximately 105000 people migrated from Bangladesh to Oman of which 11 percent were women, followed by Qatar 87000 Bangladeshi migration of which 7.4 percent were women. Interesting to note 99 percent of the migrants to Jordan are female. The

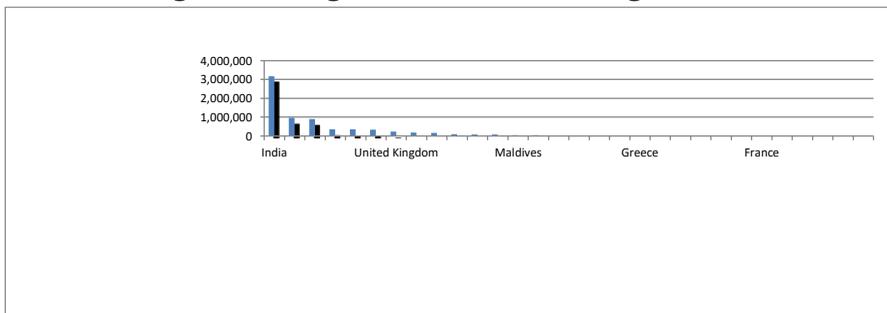
main host country with 3.2 million Bangladeshi people is India in 2013. The world total of this figure is 7.7 million approximately. Below is the country-wise immigrant and emigrant stock of Bangladesh as of 2015.

**Figure 1: Immigrant Stock 2015-Bangladesh**



**Source:** Self Computed.

**Figure 2: Emigrant Stock 2015- Bangladesh**



**Source:** Self Computed.

If we look into the immigration stock one of the highest number of people from Myanmar comes to Bangladesh. India is the main host of Bengali migrants and followed by mostly middle-eastern nations and the UK and US. Here, stock refers to the total number of people who stay in the other country or comes and stay in the host country. Below picture is of Bangladeshi migrants moving out of country to Saudi Arabia.

**Image 1: Bangladesh Emigrants in Saudi Arabia**



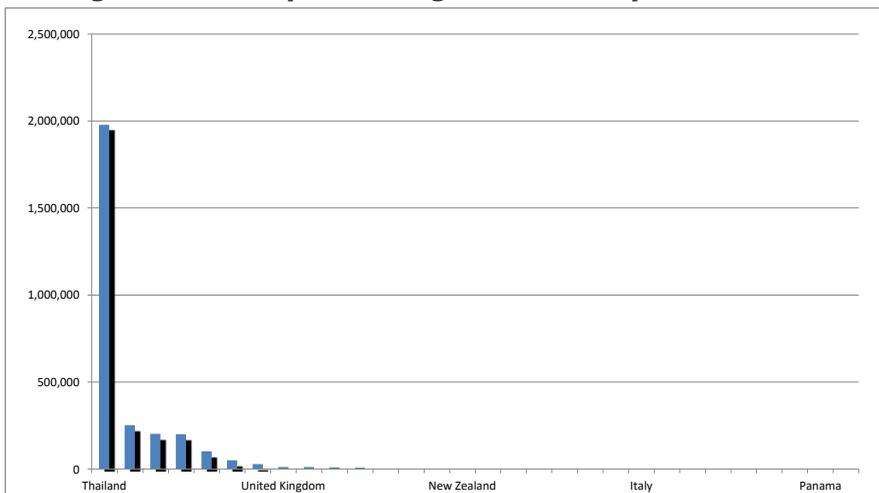
**Source:** Rahid Ejaz/Prothomalo.

## **MYANMAR**

Myanmar is a country sharing borders with Bangladesh, India and Thailand to name a few. Since its independence the country has been ruled under military and dictatorship rules until recently. With supports of the former military government controlling a large chunk of the economy Myanmar has one of the widest income gaps in the world. After Myanmar's military reign came to an end, international labour migration is a well experienced phenomenon in the country and is often considered as means of economic development in the household level as well as in the macro level, by economists and policymakers. Myanmar has nearly 55 million people out of which 26 percent is below the poverty line. In such a scene the importance of migration as a means of economic development is fairly recognizable.

McCartney et. al., (2013) surveyed 54 villages across six regions of Myanmar discovered that 42 percent suffering from food insecurity has members of the households who have migrated for better jobs and income source. Besides these evidences of internal movement of labour there is increasing trend in international labour migrants as well. Thailand which shares a large portion of their boundary with Myanmar is the major host of Burmese migrants. It is estimated that about 1.9-3.0 million registered and un-registered Burmese workers stays and make living in Thailand. There was an economic and political unrest in the late 80s in Myanmar and that has caused many people to migrate to other countries. The second most important host of Burmese migrants is Malaysia which hosts more than 250000 Burmese migrants as of 2015. Workers are largely engaged in agriculture, manufacturing and domestic workers, basically in the unskilled sectors. Bangladesh and Saudi Arabia are the countries where the conflict driven refugees migrate. The Rohingya muslim minority group of Myanmar is an example of such. These cannot however be regarded as labour migration in the literal sense of it.

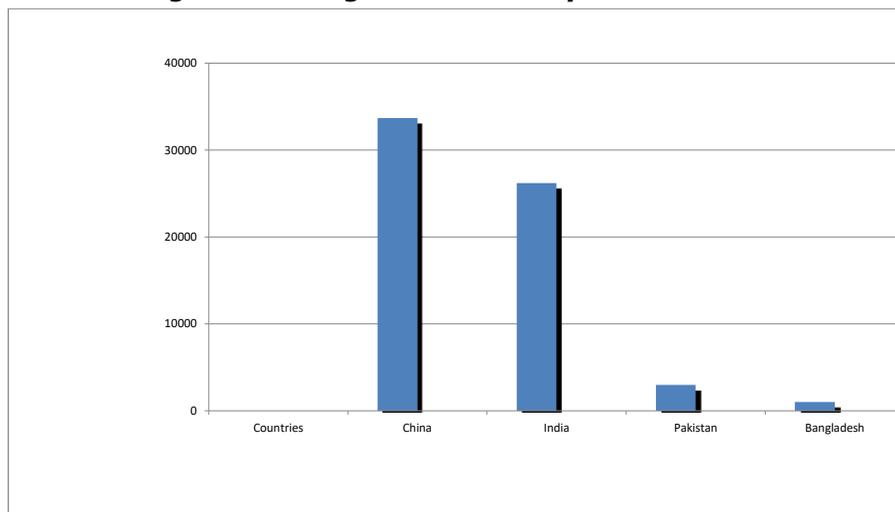
**Figure 3: Country-wise Emigrant Stock- Myanmar 2015**



**Source:** Self Computed.

As discussed above we can see the highest number of emigrants move to Thailand following Malaysia, Saudi Arabia etc. The absence of effective migration governance in Myanmar carries costs for the migrants themselves; in the case of Singapore, greater dialogue and coordination between governments could address issues of migrant exploitation.

**Figure 4: Immigrant Stock of Myanmar 2015**



**Source:** Self Computed.

Interesting to note that there are very few countries from which in-migrants enter Myanmar and the number of immigrants are fairly less than that of emigration. The reason is the stringent migration laws and atrocities prevailing in the country which fails to attract migrants. Basically the phenomenon of migration in Myanmar is either economic or conflict driven (UNDP, 2011). Below picture shows crisis faced Rohingya migrants moving from Myanmar.

**Image 2: Rohingya Migrants Cross Border**



**Source:** Mohammad Ponir Hossain/Reuters.

In the next section we compared between the two countries on socio-economic indicators and see how different and similar these two countries in some respect and different in others. We shall use Radar models for the same.

## **SOCIO-ECONOMIC COMPARISON**

At this point in time after the above discussion we should discuss the socio economic indicators of the two countries. These are indicative of the human rights that have been discussed before. We will use these variables to draw conclusion on the difference between the statuses of the two countries.

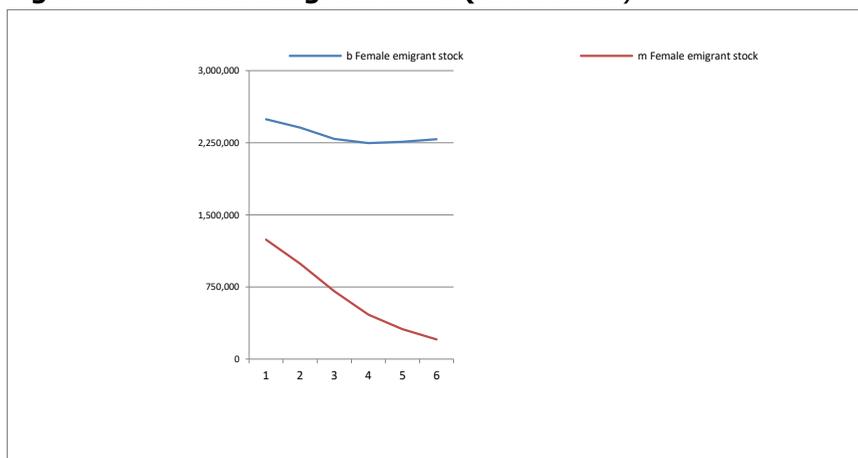
The social indicators used here are birth fertility rate that is indicative of the education status in the respective countries. CO2 emission is considered as an environmental variable. FDI which is an important economic indicator in recent times for migration and income both has been considered. There are multi-folded ways in which we can

use the indication of FDI. First, FDI itself can be used to generate income and better opportunities in the country in the form of living standards and better employment opportunity this might reduce emigration and increase immigration since the workers outside will find opportunities more lucrative in these countries. Second, the migrants going out of the country to a place where they can make more opportunity and contacts in many ways can bring in investment either directly or in portfolio. Next, we consider the government change which is an indication of political stability. Disasters includes whether the country has faced any heavy disasters in the year or in the neighbourhood years in consideration. Climate changes and effect of disaster are important drivers of migration patterns. Another economic variable we have considered is the per-capita GDP growth rate from previous year. Although the first illustration given below is gender related.

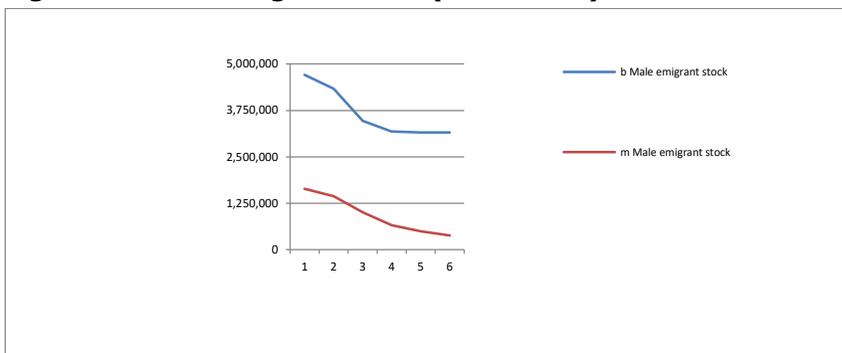
Below are graphs showing gender wise migration status of both the countries for the same years aforementioned.

### Figure 5: Gender Wise Migration (1990-2015)

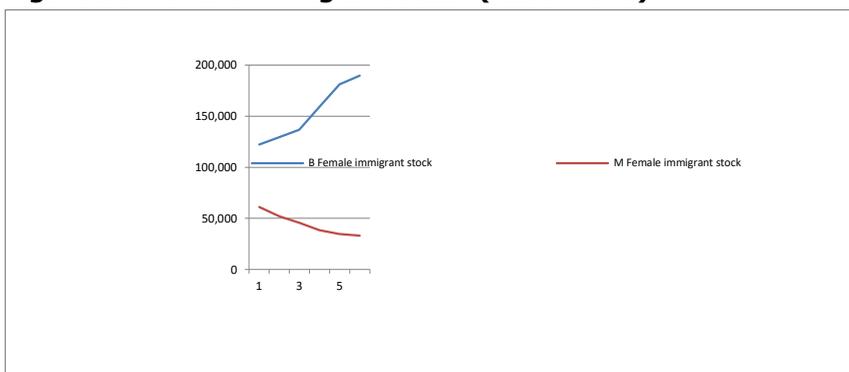
Figure 5a: Female emigrant stock (1990-2015)



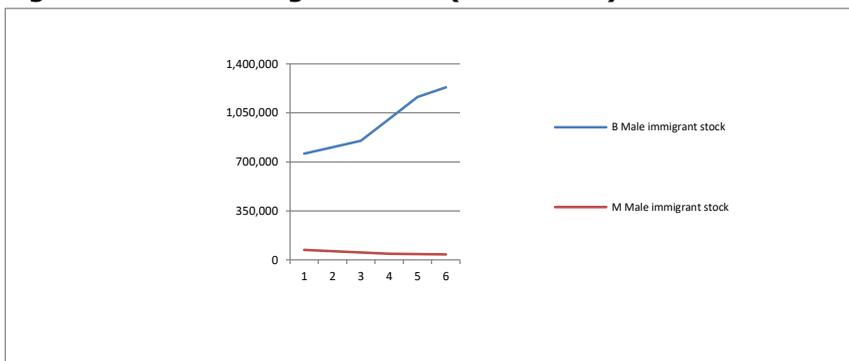
**Figure.5b: Male emigrant stock (1990-2015)**



**Figure.5c: Female immigrant stock (1990-2015)**



**Figure.5d: Male immigrant stock (1990-2015)**



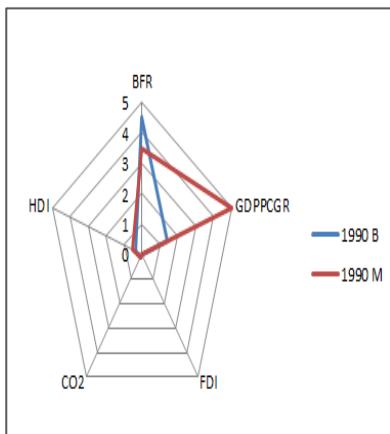
**Source:** Self Computed.

For both the countries the female migrants both in and out are much less than male migrants. Immigration into Myanmar of female has been decreasing through the years and for male it has remained fairly on the same level. However, the stocks of Myanmar are very less than that of Bangladesh. And for that of female is minimal for both countries when compared to male. Female emigrants are gradually decreasing over time but Myanmar has more female emigrants than Bangladesh. An interesting fact however is that many female Bangladeshi migrants move to other countries to become surrogate mothers for which sometimes they are highly paid. Male emigrants have decreased over time for both the countries as the countries step up in the development path.

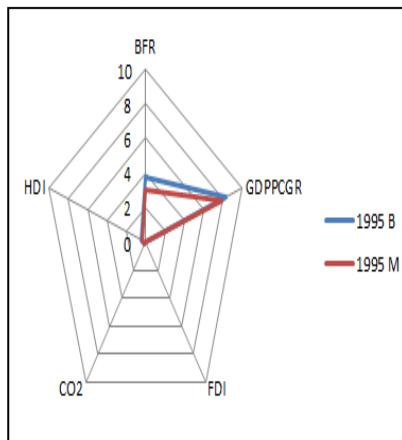
The other social indicators have been plotted in the Radar charts for the sake of better comparison.

**Figure 6: Radar Models of Socio-Economic Comparison**

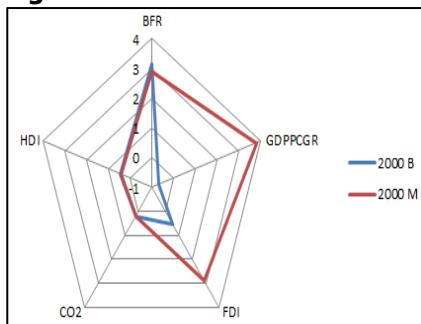
**Figure 6a: Year 1990**



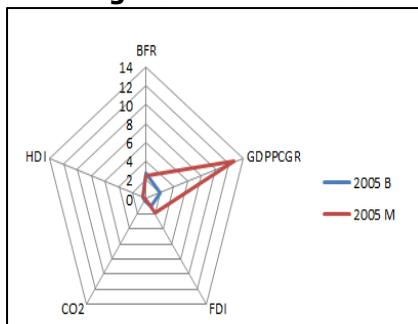
**Figure 6b: Year 1995**



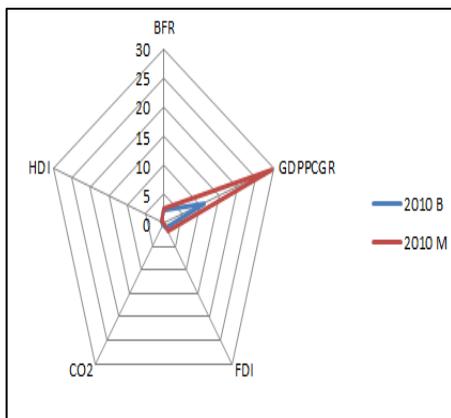
**Figure 6c: Year 2000**



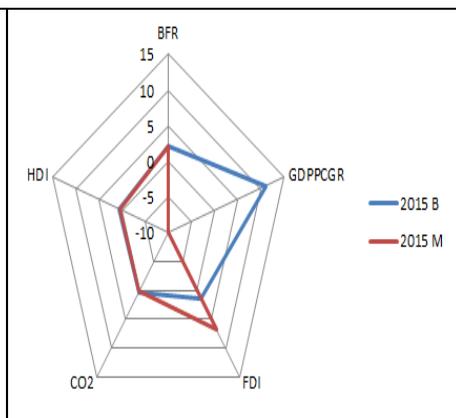
**Figure 6d: Year 2005**



**Figure 6e: Year 2010**



**Figure 6f: Year 2015**



**Source:** Self Computed.

The above cobwebs have scores attached to it and as it becomes close to zero it is a better ranking for some variables and worse for other. For example CO2 emission if the scores are close to zero then it is a good indication, while GDP per-capita growth rate is better when it is away from zero is a good indication. This depends on the nature of the variable. Both countries are judged on these indicators in this basis. The charts are fairly self-explanatory but some things should be highlighted. The growth rate in per-capita income is more or less high in Myanmar

than Bangladesh for most years but has a negative growth rate in year 2015. During in the initial years Myanmar economy was not a very open economy hence for those years FDI was minimal or unrecorded but at a later point in time FDI has been accepted in Myanmar and sometimes shows better performance than Bangladesh. HDI rankings are similar in both the countries. CO2 emissions have been less for both the countries. Reasons being Bangladesh is mainly an agrarian economy and Myanmar hasn't been able to do really well in the field of industrialization. Birth fertility in Bangladesh was high during the initial years but with time both countries have caught up in this respect.

Indicators have given directions in different ways for both the countries taken together. It is hence difficult to come to conclusion which country provides human rights better than the other. Bangladesh has performed better in some aspects like HDI if not drastically but it still has, whereas, Myanmar has economic growth better than Bangladesh. Hence, an outright conclusion of labelling any of the two countries as a better provider of human rights is subject to debate and is ambiguous. This is one of the reasons we have considered the two countries owing to the similar type of nature we see in the patterns of variables.

The next section builds up an econometric model to see how migration has effected the two countries two arrive at certain results which is discussed in greater details in the following section.

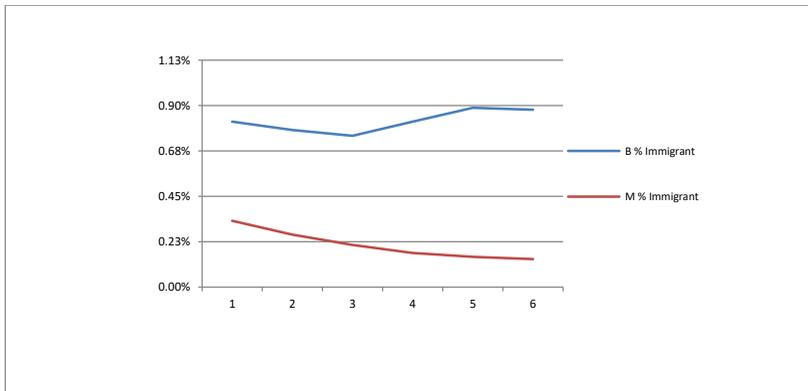
## **THE ECONOMETRIC MODEL**

In this section we have tried to create and econometric model which will illustrate some results. For the purpose of the same we have used panel data modelling. There is scope of discussion on the choice of Panel modelling. This type of model is considered for treatment because Panel model adjusts for the country wise effects. As discussed earlier we are considering migration as a proxy of human rights. Here, we shall consider per-capita GDP as the dependent variable. We wish to check how the

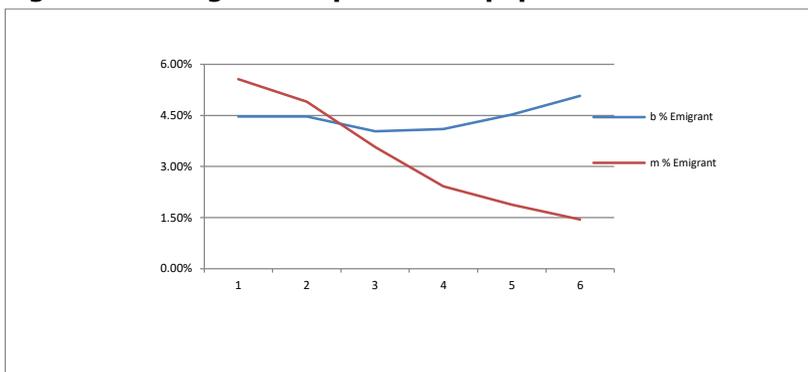
immigration rate and emigration rate, adjusted for other social and economic factor influences the GDP per-capita. This in a way shows that with less freedom of human rights there is a phenomena of migration that is experienced by countries that in-turn affects the GDP per-capita. Before the actual regression we must look into the trend in migration patterns in both the countries.

**Figure 7: Immigration and Emigration pattern of the countries Bangladesh and Myanmar**

**Figure 7.a: Immigrant as percent of population**



**Figure 7.b: Emigrant as percent of population**



Migration patterns in both the countries are different. Bangladesh seems to have an increasing trend both in immigration as well as

emigration, whereas, in Myanmar there has been a drastic fall in the migration rates over the period of time (1990-2105). But the immigration rates are fairly around the same neighbourhood. The immigration rates are very less in the two countries compared to emigration. Immigrants are often not welcome to Myanmar hence the immigration rates are lower than that of Bangladesh. In emigration however there is drastic fall for Myanmar but then for most of the years it has been less than that of Bangladesh. To be noted is that both variables are as percentage of GDP and actual stocks may show different results, but this was thought to be more appropriate for comparison.

**Table 1: Socio-Economic Impact on Immigration and Emigration of the Countries Bangladesh and Myanmar**

| <b>gdppc</b> | <b>Coef.</b> | <b>Std. Err.</b> | <b>P&gt;z</b> |
|--------------|--------------|------------------|---------------|
| emmi         | 293.4594***  | 56.81767         | 0             |
| immi         | -1789.58***  | 409.5187         | 0             |
| fdi          | -25.1315     | 49.55446         | 0.612         |
| hdi          | 16250.87***  | 1882.965         | 0             |
| govt         |              |                  |               |
| 1            | -2.98471     | 73.44079         | 0.968         |
| 2            | -136.854     | 194.1297         | 0.481         |
| 1.disaster   | -26.0023     | 76.11141         | 0.733         |
| bfr          | 995.3739***  | 179.0751         | 0             |
| homi         | 82.6818      | 207.2126         | 0.69          |
| _cons        | -10310.4***  | 1368.378         | 0             |

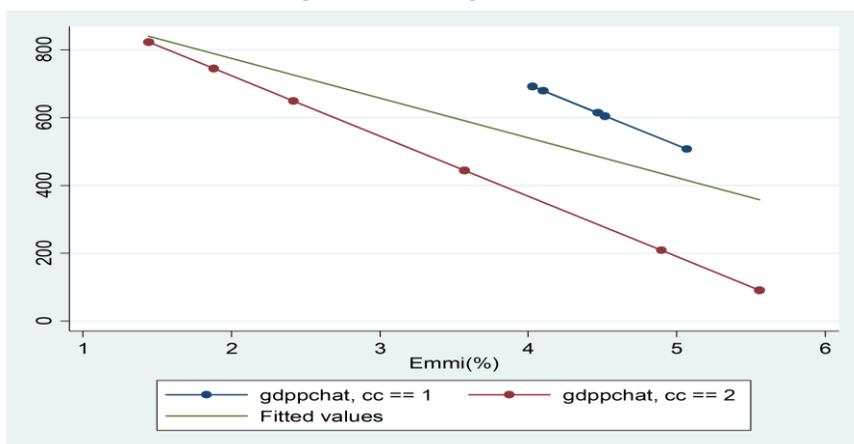
**Note:** \*\*\*,\*\*,.\* implies significance at 1 percent, 5 percent, 10 percent l.o.s.

Remittances play an important part in the discussion although it has not been explicitly discussed as a part of the model. In Table 1, emigration has a positive sign and is significant at 1 percent level. Everything else remaining constant the effect of emigration is positive on per-capita income and the effect of immigration is negative on the GDPPC. Occurrence of disaster although not significant is expected sign. Homicide rates are insignificant in the model and the sign is unexpected as well. Birth-fertility rate is an important variable which is an indicator of population and is significant at 1 percent level. HDI is the index rating for the two countries at different time which adjusts for education variable. The effect of BFR is negative on per-capita income which says that when fertility rate raises which increases population then the economic pie available is negatively affected. That is intuitively convincing. What is not convincing to see in the model is the magnitude of the coefficients of the model. This is because we have taken is from 1990 to 2015 with five yearly data. It is to be noted that we have taken a random effect model. The marginal effect illustration in an FE and Pooled OLS model is straight forward to put but in the random effect model we must do it carefully. Here, we have two variables which are fixed in time i.e. the government and disaster. Government as a variable is binary in the sense that whether the countries have the same government or there has been change. In case of Myanmar however, they had military rule or democratically elected government. A random-effect model can better account for such kind of variables which is reflected in the constant term in case of a fixed-effect model. The marginal effect here is seen as a one unit change in the independent variable across country and over time has what kind of change in the dependent variable. Hereby, calculating both effects we have clubbed the two countries in a single model.

There were very few observation for the same variables for the same period of time hence the model might not be very convincing if we had taken two countries separately since the number of variables becomes more than the number of observation making the regression nonsense. This is the second reason why the panel model is considered.

The model has a very high R-square and Adj R-square of above 0.99 both within and between. This is however not indicative of a good fit since there is high multi-collinearity also present in the independent variables. When an auxiliary regression was carried out then it was checked that immigration and emigration was highly dependent on variables like HDI and change in government. That is true in the sense that if we consider the discussion on rights then migration will surely depend on political stability and the level of rights available in the country. The total joint significance test is also passed by the model. The same results are discussed in the Appendix Table A5.

**Figure 8: Estimated Out-Migration of the Countries Bangladesh and Myanmar using Pooled OLS**



**Source:** Self calculated.

Both countries have shown very high rates of migration. But the reasons are somewhat different. In the case of Bangladesh keeping aside the war-time border crossing previous time, the main reason of migration is economic. That is Bangladeshi people migrate because they enjoy economic benefit in other countries which they can send back to Bangladesh as remittance. And we have already discussed how these remittances are channelized for economic benefits of the same country.

But the situation in Myanmar is different. The social reasons are mainly what drive migration in Myanmar. There was military rule in Myanmar for a long period of time which has made livelihood fragile and difficult under dictatorship. Another important thing is that migration is majorly seen in minority who are the victims of minority atrocities.

The Rohingya crisis is an example of such kind of atrocities which has driven many out-migrants from Myanmar. In the figure 8, we have given the overall pooled OLS line and the estimated line of two countries with out-migration, where the independent variable is per-capita GDP. This is done with these two variables and can be similarly repeated with other variables and GDP. This was done by segregating the estimates by country.

This kind of model is a Least Square Dummy Variable (LSDV) model (Appendix Table A4) taken to capture the country wise effect including country dummies shows different results however and is actually opposite to what we have discussed just above. Emigration has a negative impact on GDP per capita. This may reflect the brain drain problem as more productive workers are absorbed outside the country the efficiency is reduced which reduces GDP per-capita. The blue line is for Bangladesh with country code 1 and the red is for Myanmar with country code 2. To be noted they are fitted plots. The following section will conclude the paper by listing out the major findings.

## **CONCLUSION**

Bangladesh and Myanmar are growing economies of South Asia but still they provide it its citizen a standard of development which is not commendable. The socio economic indicators of the two countries are not very convincing and good to look at showing the absence of the human rights with which we have initially started our discussion. The initial question of whether these human rights and the economic well-being are substitutes or not? could not be explicitly answered in the discussion. In

one case in the econometric modelling we have seen that the effect of emigration keeping everything adjusted was positive while at a later point in time the effects were seen to be negative. Both can be intuitively supported by logic. In the comparisons between two countries we have noticed that no firm conclusion on which country succeed to provide human rights well and sustain economic life and social life in the respective countries very well. There can be scope of further findings which isn't in the scope of this paper on how well managed the migration policies itself are in the two countries. Government changes in the two country though not statistically significant in the model is convincing in the sign that both country government changes and political unrest has been deleterious for the economic well-being of the citizens. Though not explicitly realized and used in the paper there are religious minority issues which has also been faced by the two countries. Bangladesh is a Muslim majority country and Hindu migrations were very common after their independence but later we see that the numbers of Muslim migrants are more in the recent years. On the other hand Myanmar majority are of Buddhist faith and they have many times created atrocities in the country either religious or political that many minority groups including the Rohingya tribes forcefully moved out of the country.

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## APPENDIX

**Table A1: Compiled Dataset**

| Country                | C<br>C   | Date | Emmi(<br>percen<br>t) | Immi(<br>perce<br>nt) | FDI      | HDI   | GOV<br>T | GDPP<br>C | Disas<br>ter | BFR  | Homi |
|------------------------|----------|------|-----------------------|-----------------------|----------|-------|----------|-----------|--------------|------|------|
| <b>Bangla<br/>desh</b> | <b>1</b> | 1990 | 4.47                  | 0.82                  | 0.01025  | 0.386 | 2        | 329       | 0            | 4.49 | 2.3  |
| <b>Bangla<br/>desh</b> | <b>1</b> | 1995 | 4.47                  | 0.78                  | 0.004998 | 0.423 | 1        | 383       | 0            | 3.71 | 2.35 |
| <b>Bangla<br/>desh</b> | <b>1</b> | 2000 | 4.03                  | 0.75                  | 0.525362 | 0.468 | 0        | 412       | 1            | 3.17 | 2.5  |
| <b>Bangla<br/>desh</b> | <b>1</b> | 2005 | 4.1                   | 0.82                  | 1.09515  | 0.506 | 1        | 495       | 1            | 2.69 | 2.51 |
| <b>Bangla<br/>desh</b> | <b>1</b> | 2010 | 4.52                  | 0.89                  | 1.068935 | 0.545 | 0        | 808       | 0            | 2.33 | 2.63 |
| <b>Bangla<br/>desh</b> | <b>1</b> | 2015 | 5.07                  | 0.88                  | 1.451288 | 0.579 | 1        | 1,282     | 0            | 2.13 | 2.51 |
| <b>Myanm<br/>ar</b>    | <b>2</b> | 1990 | 5.56                  | 0.33                  | 0        | 0.353 | 1        | 128       | 0            | 3.46 | 2.1  |
| <b>Myanm<br/>ar</b>    | <b>2</b> | 1995 | 4.9                   | 0.26                  | 0        | 0.393 | 1        | 180       | 0            | 3.04 | 1.4  |
| <b>Myanm<br/>ar</b>    | <b>2</b> | 2000 | 3.57                  | 0.21                  | 2.861178 | 0.427 | 1        | 221       | 0            | 2.91 | 2.1  |
| <b>Myanm<br/>ar</b>    | <b>2</b> | 2005 | 2.42                  | 0.17                  | 1.959664 | 0.474 | 1        | 287       | 0            | 2.41 | 1.49 |
| <b>Myanm<br/>ar</b>    | <b>2</b> | 2010 | 1.88                  | 0.15                  | 1.818972 | 0.526 | 1        | 997       | 0            | 2.41 | 1.55 |
| <b>Myanm<br/>ar</b>    | <b>2</b> | 2015 | 1.44                  | 0.14                  | 6.842049 | 0.556 | 0        | 1,147     | 1            | 2.23 | 2.42 |

**Table A2: Summary Statistics**

| <b>Variable</b> | <b>Obs</b> | <b>Mean</b> | <b>Std. Dev.</b> | <b>Min</b> | <b>Max</b> |
|-----------------|------------|-------------|------------------|------------|------------|
| cc              | 12         | 1.5         | 0.522233         | 1          | 2          |
| date            | 12         | 2002.5      | 8.918826         | 1990       | 2015       |
| emmi            | 12         | 3.869167    | 1.30159          | 1.44       | 5.56       |
| immi            | 12         | 0.516667    | 0.326199         | 0.14       | 0.89       |
| fdi             | 12         | 1.46982     | 1.929409         | 0          | 6.842049   |
| hdi             | 12         | 0.469667    | 0.073907         | 0.353      | 0.579      |
| govt            | 12         | 0.833333    | 0.57735          | 0          | 2          |
| gdppc           | 12         | 555.75      | 398.7939         | 128        | 1282       |
| disaster        | 12         | 0.25        | 0.452267         | 0          | 1          |
| bfr             | 12         | 2.915       | 0.705736         | 2.13       | 4.49       |
| homi            | 12         | 2.155       | 0.438002         | 1.4        | 2.63       |

## Table A3: Individual Country Regressions

### A3.1: Stata Output Bangladesh

| Source   | SS         | df | MS         | Number of obs = | 6      |
|----------|------------|----|------------|-----------------|--------|
| Model    | 673306.833 | 5  | 134661.367 | F( 5, 0) =      | .      |
| Residual | 0          | 0  | .          | Prob > F =      | .      |
|          |            |    |            | R-squared =     | 1.0000 |
|          |            |    |            | Adj R-squared = | .      |
| Total    | 673306.833 | 5  | 134661.367 | Root MSE =      | 0      |

| gdppc    | Coef.       | Std. Err. | t | P> t | [95% Conf. Interval] |
|----------|-------------|-----------|---|------|----------------------|
| emmi     | 895.8972    | .         | . | .    | .                    |
| immi     | 0 (omitted) |           |   |      |                      |
| fdi      | 363.3735    | .         | . | .    | .                    |
| hdi      | 0 (omitted) |           |   |      |                      |
| govt     | -136.9107   | .         | . | .    | .                    |
| disaster | 153.276     | .         | . | .    | .                    |
| bfr      | 103.8493    | .         | . | .    | .                    |
| homi     | 0 (omitted) |           |   |      |                      |
| _cons    | -3871.847   | .         | . | .    | .                    |

### A3.2: Stata Output Myanmar

| Source   | SS         | df | MS         | Number of obs = | 6      |
|----------|------------|----|------------|-----------------|--------|
| Model    | 1029345.33 | 5  | 205869.067 | F( 5, 0) =      | .      |
| Residual | 0          | 0  | .          | Prob > F =      | .      |
|          |            |    |            | R-squared =     | 1.0000 |
|          |            |    |            | Adj R-squared = | .      |
| Total    | 1029345.33 | 5  | 205869.067 | Root MSE =      | 0      |

| gdppc    | Coef.       | Std. Err. | t | P> t | [95% Conf. Interval] |
|----------|-------------|-----------|---|------|----------------------|
| emmi     | -1582.622   | .         | . | .    | .                    |
| immi     | 0 (omitted) |           |   |      |                      |
| fdi      | 90.35499    | .         | . | .    | .                    |
| hdi      | 0 (omitted) |           |   |      |                      |
| govt     | 0 (omitted) |           |   |      |                      |
| disaster | 1997.283    | .         | . | .    | .                    |
| bfr      | 6027.163    | .         | . | .    | .                    |
| homi     | -2198.398   | .         | . | .    | .                    |
| _cons    | -7309.97    | .         | . | .    | .                    |

There is high multicollinearity problem because of which some of the variables get omitted. STATA doesn't report and statistic the reason for which has been mentioned in the paper.

**Table A4: The LSDV Model**

| Source   | SS         | df | MS         |                 |        |  |
|----------|------------|----|------------|-----------------|--------|--|
| Model    | 509346.681 | 2  | 254673.34  | Number of obs = | 12     |  |
| Residual | 1240055.57 | 9  | 137783.952 | F( 2, 9) =      | 1.85   |  |
| Total    | 1749402.25 | 11 | 159036.568 | Prob > F =      | 0.2126 |  |
|          |            |    |            | R-squared =     | 0.2912 |  |
|          |            |    |            | Adj R-squared = | 0.1336 |  |
|          |            |    |            | Root MSE =      | 371.19 |  |

| gdppc | Coef.     | Std. Err. | t     | P> t  | [95% Conf. Interval] |          |
|-------|-----------|-----------|-------|-------|----------------------|----------|
| emmi  | -177.5194 | 96.88219  | -1.83 | 0.100 | -396.6821            | 41.64333 |
| 2.cc  | -328.6848 | 241.4647  | -1.36 | 0.207 | -874.916             | 217.5464 |
| _cons | 1406.945  | 456.3736  | 3.08  | 0.013 | 374.5557             | 2439.333 |

**Table A5: The Panel Regression Model**

|                               |                      |        |
|-------------------------------|----------------------|--------|
| Random-effects GLS regression | Number of obs =      | 12     |
| Group variable: cc            | Number of groups =   | 2      |
| R-sq: within = 0.9909         | Obs per group: min = | 6      |
| between = 1.0000              | avg =                | 6.0    |
| overall = 0.9911              | max =                | 6      |
|                               | Wald chi2(8) =       | 335.16 |
| corr(u_i, X) = 0 (assumed)    | Prob > chi2 =        | 0.0000 |

| gdppc    | Coef.     | Std. Err.                         | z     | P> z  | [95% Conf. Interval] |           |
|----------|-----------|-----------------------------------|-------|-------|----------------------|-----------|
| emmi     | 289.2701  | 51.54733                          | 5.61  | 0.000 | 188.2392             | 390.301   |
| immi     | -1847.895 | 365.8752                          | -5.05 | 0.000 | -2564.997            | -1130.793 |
| fdi      | -38.68658 | 41.6613                           | -0.93 | 0.353 | -120.3412            | 42.96806  |
| hdi      | 15922.09  | 1664.166                          | 9.57  | 0.000 | 12660.38             | 19183.79  |
| govt     | -20.42312 | 63.07838                          | -0.32 | 0.746 | -144.0545            | 103.2082  |
| disaster | -20.22617 | 69.0287                           | -0.29 | 0.770 | -155.5199            | 115.0676  |
| bfr      | 926.6078  | 136.9752                          | 6.76  | 0.000 | 658.1413             | 1195.074  |
| homi     | 128.3227  | 179.5584                          | 0.71  | 0.475 | -223.6052            | 480.2507  |
| _cons    | -9985.472 | 1175.283                          | -8.50 | 0.000 | -12288.98            | -7681.96  |
| sigma_u  | 0         |                                   |       |       |                      |           |
| sigma_e  | 85.659082 |                                   |       |       |                      |           |
| rho      | 0         | (fraction of variance due to u_i) |       |       |                      |           |

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