

Using Human Development Index to Identify some  
Determinants of Gender Gap in Southeast Countries in  
1999

By

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## 1. INTRODUCTION

The gender gap between males and females and its effects on development has found a great participation from researchers all over the world especially after ICPD held in Cairo in 1994. A new term was introduced in ICPD like, Women Empowerment to give a special importance to the gaps between males and females to eliminate these gaps.

Many researches described the gaps between males and females in many indicators like, Education, Health, Income, Participation in Labour Force and Participation in Decision-making and others. There was an aggregate measure to collect these indicators together until UNDP introduced in 1990 Human Development Index. This index is a composite measure, which depends on three main indicators, Life expectancy at birth, Educational attainment and GDP per capita. This index could be used to evaluate the programs of human development, and in many other things.

### 1.1 Historical Background

The definition of human development has changed over time. In the Fifties, it meant “Human Resources Development” until the middle of the Eighties but its contents have changed more over during the Fifties & Sixties. Education & training were the main points of human resources development.

But Since the beginning of 1990 on wards, a new term was introduced, namely “Human Development” with emphasis on the utilisation of human capabilities.

UNDP defined human development, as an operation, which aims to increase and make available choices to the population and to make them unlimited with ability to change over time. From the practical point of view, it is clear that for all levels of development, the basic choices are:

- 1-Long life without diseases
- 2-Education
- 3-Good standard of living.

If these basic choices are not available many others choices will not be available too.

On the basis of these choices, there was an attempt to design a measure for human development, which was depending on (GDP per capita) only. But later the Human Development Index HDI was presented by UNDP in 1990. The HDI is based on three indicators, namely:

- 1-Longevity: as measured by life expectancy at birth.
- 2-Educational attainment: as measured by a combination of adult literacy rate (two-third weight) and the combined gross primary, secondary, tertiary enrolment ratio (one- third weight).
- 3-Standard of living: as measured by GDP per capita.

For any component of the HDI individual indices can be computed according to the general formula:

$$\text{Index} = \frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}}$$

But GDP per capita index has a different formula, which is;

$$W(Y) = \frac{\text{Log}(Y) - \log(Y_{\min})}{\text{Log}(Y_{\max}) - \log(Y_{\min})}$$

Where:

**W(Y)**, is GDP per capita index.

**Log(Y)**, is the logarithm of the actual value of GDP per capita in country under study.

**Log(Y<sub>min</sub>)**, is the logarithm of the minimum value of GDP per capita.

**Log(Y<sub>max</sub>)**, is the logarithm of the maximum value of GDP per capita.

To construct the index fixed minimum & maximum values have been established for each of these indicators by UNDP (HDR, 2000)

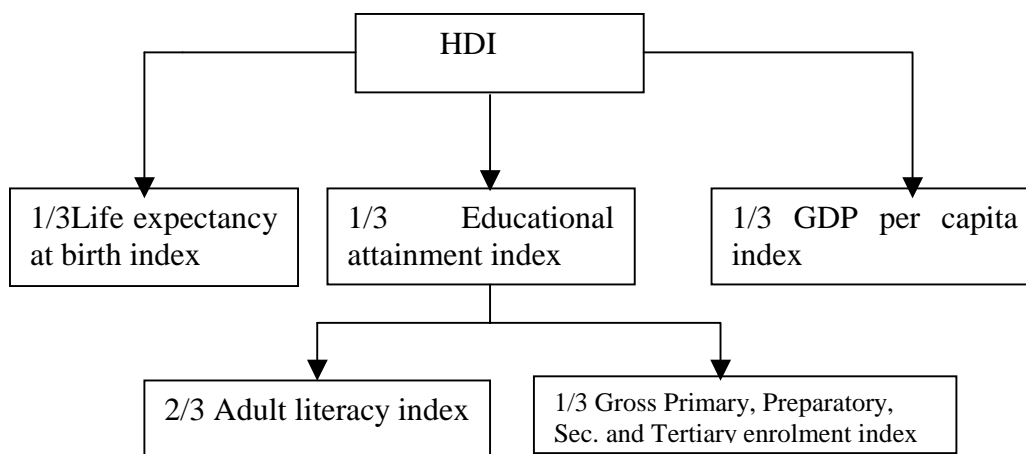
- 1-Life expectancy at birth: 25 years and 85 years.
- 2-Adult literacy rate (age 15+): 0 % and 100 %
- 3-Combined gross enrolment ratio: 0 % and 100 %
- 4-GDP per capita (U.S \$): \$ 100 and \$ 40,000.

The Human Development Index is calculated according to the following formula:

$$\text{HDI} = \frac{1}{3} [\text{Life Expectancy Index} + \text{Educational Attainment Index} + \text{GDP per Capita Index}]$$

(1)

This is shown in the following figure:



According to the figure, Educational Attainment Index is based on two indicators, which are Adult Literacy Rate and Gross Primary, Preparatory, Secondary and Tertiary Enrolment Index. Each one of them contributes in Educational Attainment Index by a special weight 2/3 for Adult Literacy Index and 1/3 for Gross Enrolment Index. According to that, HDI is based on four indicators, which are Life Expectancy at Birth Index, Adult Literacy Index, Gross Enrolment Index and GDP per Capita Index. Each indicator contributes in HDI by a special weight and the equation of HDI could be written as follows:

$$\begin{aligned}
 \text{HDI} = & \left[ \frac{1}{3} \text{ Life Expectancy Index} + \frac{2}{9} \text{ Adult Literacy Index} \right. \\
 & \left. + \frac{1}{9} \text{ Gross enrolment Index} + \frac{1}{3} \text{ GDP per Capita Index} \right] \quad (2)
 \end{aligned}$$

## **1.2 Research Problem**

Gender inequalities prevail in many parts of the World, particularly in developing countries. In south-east countries, such inequalities are to be found between males and females in the following:

- Educational level
- Health status
- Participation in Labour Force
- Participation in public decision making

So far, no composite measure of gender gap has been developed. The idea is to use the HDI in identifying the factors associated with the strongest

impact on such inequalities. This would enable planners and policy makers in the formulation of plans and policies directed toward reducing gender inequalities with respect to three main indicators only, which are longevity, education and standard of living.

### **1.3 Objectives of the Study**

The main objective of this study is to apply the HDI to data on gender disparities in south-east countries in order to assess the size of the gender gap with respect to longevity, education and standard of living.

Other objectives include:

- 1- Measurement of the gender gap for each of the HDI indicators.
- 2- Examining the gaps in each indicator to identify the main age groups, which cause such gap.
- 3- Recommend policy measures for reducing gender disparities south-east countries.

### **1.4 Literature Review**

Gender gap exists in almost all countries, particularly in the developing countries. Its components include education, health and GDP per capita. Several studies have dealt with these issues before and especially after ICPD of 1994 in Cairo. These studies were on both national and international levels. Some of these studies are discussed here.

Shallat and Paredes (1995) introduced gender concepts to development planners and policy-makers in international and national governmental agencies, the private sector, non-governmental organisations, and citizen's organisations. They refer to the difficulty of convincing development planners to recognise the vital role that gender plays in development efforts. The concept of gender is discussed and elaborated in terms of gender division of labour, the reproductive dimension, and the gender division of power. They concluded that gender analysis can help identify and solve conflicts and create positive change. However, such analysis cannot be completed without accurate measures of the size of gender inequalities.

Anand and Sen (1996) explored and made specific recommendations about a methodology for developing a framework for "gender-equity-sensitive indicators", considered the formulation and utilisation of measures of gender equality and inequality, and looked at the identification of efforts and contributions made by women that have gone unrecognised in standard national income and employment statistics. They developed equations that focus on gender

differentials in achievement in areas such as literacy, where the “potentials” of men and women do not differ. Then considered equations that integrate a differential scaling into the general evaluative scheme of gender-equity-sensitive indexes. They presents the case for differentiating the earning of women and men, and offers a “corrected” version of the Human Development Index that considers the extent of social preference for equality and results in a “gender-related development index.” After applying a more intense look to the type of information offered through use of the gender-equity-sensitive indicators and pointing out that this proposed methodology does not depend upon use of the classic human development indicators, three appendices offer a more general discussion and proofs of the major results.

Sharma (1997) examined the human development index HDI, introduced in 1990 by the UN development program, and offered an alternative to the gross national product and consumer utility in its ability to measure relative socio-economic progress over time and identify priorities for policy intervention. On the other hand, as an overall development index, the HDI is unable to reveal disparities based on gender, race, social class, and region. Its failure to incorporate desegregated variables has impeded government awareness that particular subgroups experience very different levels of socio-economic development concealed by the HDI. Only when the HDI is more gender-sensitive will it be an accurate measure of human development. The creators of the HDI are urged to ensure that their data of critical measures such as employment, income, mortality, education, consumption, and housing are desegregated by sex. Moreover, models should assign an economic value to women’s unpaid domestic labour as well as their underpaid, under-reported work in the formal and informal sectors.

### **1.5 Methodology**

In this study, mathematical methods are used to calculate the HDI for males and females and the gap between them. As known, HDI is based on three main indicators, which are life expectancy at birth, educational attainment, and GDP per capita, so we will calculate the gap between males and females for each indicator and calculate the percent of each gap of those indicators in the total gap of HDI. Also, we will calculate the gap in educational attainment index and the gaps in its components and analyse it into its components, namely, Adult literacy rate and Gross Primary, Preparatory, Secondary and tertiary enrolment ratio, and calculate the percent of each component. Also a descriptive statistics and simple regression will be used to estimate the relation between the gap in Educational Attainment Index and its factors.

## **1.6 Data Sources**

This study depends on international secondary data from the following sources:

- 1-Annual Human development Reports 2000 from UNDP

## **1.7 Organization of the Study**

This study consists of 3 main sections, including:

- Section (1): Introduction, which includes Research problem, Objectives of the study, Literature review, Methodology, Data Sources and Organization of the study.
- Section (2): The Gap in HDI and Its Indicators Between Both Sexes, which includes The Gap in Life Expectancy at Birth Index between Both Sexes, The Gap in Educational Attainment Index between Both Sexes, The Gap in GDP per Capita Index between Both Sexes and The Gap In HDI between Both Sexes.
- Section (3): Study Results & Recommendations.
- References.

## **2. The Gap in HDI and its Indicators between Both Sexes**

The gap in HDI between males and females is the sum of the gaps of three indicators, life expectancy at birth, educational attainment and GDP per capita. Each indicator contributes in the gap in HDI by some percent. This section measures the gaps in each indicator and its percent in the gap in HDI according to our relation (2).

### **2.1 The Gap in Life Expectancy at Birth Index between Both Sexes**

The first indicator is life expectancy at birth, the gap in life expectancy at birth indicator can be calculated as the difference between life expectancy at birth for females and males, where the positive sign means against males.

Life expectancy at birth for Singapore for males was (75.2 years) in 1999 and (79.6 years) for females. The gap between them is (79.6-75.2 =+4.4 years), which represents the gender gap in life expectancy at birth in number of years between females and males. However, it can not be used in HDI before translating it to an index according to the formula:

$$\text{Life Expectancy at Birth Index} = \frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}}$$

Where:

$$0 \leq \text{Index} \leq 1$$

If the index near to 0, this means low value of life expectancy at birth and

If the index near to 1, this means high value of life expectancy at birth.

**Actual value**, is the actual life expectancy at birth for males or females in country under study.

**Minimum value**, is the minimum value of life expectancy at birth for males or females, which was established as 25 years.

**Maximum value**, is the maximum value of life expectancy at birth for males or females, which was established as 85 years.

**Table 2.1: Life Expectancy at Birth Index by Sex in southeast countries in 1999**

Country	1999		1999		1999 Gender Gap
	F	M	F	M	
	Life Expectancy at Birth Value		Life expectancy at birth index		
<b>Brunei</b>	78.3	73.6	0.888333333	0.81	0.078333333
<b>Cambodia</b>	58.6	54.1	0.56	0.485	0.075
<b>Indonesia</b>	67.7	63.9	0.711666667	0.648333333	0.063333333
<b>Laos</b>	48	47.8	0.383333333	0.38	0.003333333
<b>Malaysia</b>	74.8	69.9	0.83	0.748333333	0.081666667
<b>Myanmar</b>	58.4	53.6	0.556666667	0.476666667	0.08
<b>Philippines</b>	71.1	67	0.768333333	0.7	0.068333333
<b>Singapore</b>	79.6	75.2	0.91	0.836666667	0.073333333
<b>Thailand</b>	72.9	67	0.798333333	0.7	0.098333333
<b>Viet Nam</b>	70.2	65.5	0.753333333	0.675	0.078333333

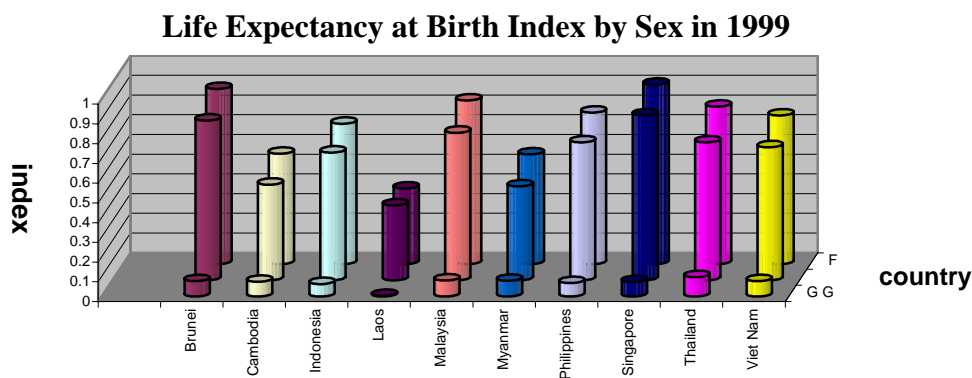
Source: Human Development Reports (UNDP,2000)

Life Expectancy at Birth Index for Singapore for males was  $\left(\frac{75.2-25}{85-25} = 0.837\right)$  and  $\left(\frac{79.6-25}{85-25} = 0.91\right)$  for females in 1999 .

The gap in life expectancy at birth index between females and males, which takes value between 0, 1 was  $(0.91-0.837=+0.073)$  for Singapore, which is very near to 0, So Singapore has a very low gap between males and females. We must note that, if the gap near to 0, this means the gap is low and if the gap near to 1, this means the gap is high

Table 2.1 shows that, the gaps were in 1990 (+0.098) for Thailand, (+0.082) for Malaysia, (+0.08) for Myanmar, (+0.078) for both Brunei and Viet Nam, ( 0.075) for Cambodia, (0.073) for Singapore, (0.068) for Philippines, (0.064) for Indonesia, (0.003) for Laos. (See Figure 2.1)

**Figure 2.1**



Source: HDR, UNDP, 1990-2000

The value of that gap is quite natural due to biological causes and because of that, we can eliminate that indicator in the gender gap in HDI.

### **2.2 The Gap in Educational Attainment Index between Both Sexes**

The same method, which was used in calculating life expectancy at birth index, will be used here for the educational attainment index. But we have a problem that, the educational attainment index consists of two main indicators (Adult literacy index two-thirds and gross Primary, Preparatory, Secondary and tertiary enrolment index one-third).

To calculate the educational attainment index we need to calculate the index for each of its indicators according to the formula:

$$\text{Index} = \frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}}$$

Where:  $0 \leq \text{Index} \leq 1$

If the index near to 0, this means low value and if the index near to 1, this means high value of any of the two indicators.

**Actual value**, is the real value of adult literacy rate or gross Primary, Preparatory, Secondary and tertiary enrolment ratio for each sex.

**Minimum value**, is the minimum value of adult literacy rate or gross Primary, Preparatory, Secondary and tertiary enrolment ratio for each sex, which was established as 0 %.

**Maximum value**, is the maximum value of adult literacy rate or gross Primary, Preparatory, Secondary and tertiary enrolment ratio for each sex, which was established as 100 %.

According to that, the formula will be:

$$\text{Index} = \frac{\text{Actual value}}{100}, \quad 0 \leq \text{Index} \leq 1$$

In 1999, the adult literacy rate for Philippines for males was (95.3) and gross Primary, Preparatory, Secondary and Tertiary enrolment ratio was (80), where they were for females (94.9) and (84). But we cannot use those values. So, we will translate them into indexes as following:

$$\text{Males Adult Literacy Index} = \frac{95.3}{100} = 0.953$$

$$\text{Females Adult Literacy Index} = \frac{94.9}{100} = 0.949$$

$$\text{Males Gross Enrolment Index} = \frac{80}{100} = 0.8$$

$$\text{Females Gross Enrolment Index} = \frac{84}{100} = 0.84$$

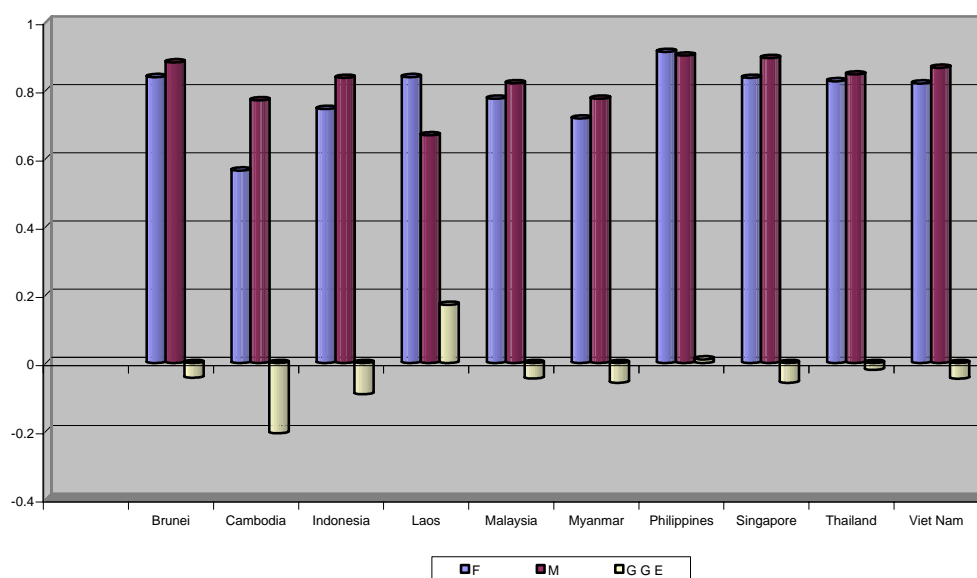
To calculate the educational attainment index for males and females, we will use only  $(\frac{2}{3})$  from adult literacy index for each sex separately and  $(\frac{1}{3})$  from gross enrolment index also for each sex.

$$\begin{aligned} \text{Males educational attainment index} &= \left[ \frac{2}{3} \times (0.953) + \frac{1}{3} \times (0.8) \right] \\ &= \mathbf{0.902} \end{aligned}$$

$$\begin{aligned} \text{Females educational attainment index} &= \left[ \frac{2}{3} \times (0.949) + \frac{1}{3} \times (0.84) \right] \\ &= \mathbf{0.913} \end{aligned}$$

The gap between females and males in educational attainment index for Philippines is the difference between females and males, which was in 1999  $(0.913 - 0.902 = -0.0107)$ , where the negative sign means against females and the + sign means against males. The gap was  $(-0.043)$  for Brunei,  $(-0.206)$  for Cambodia,  $(-0.092)$  for Indonesia,  $(0.171)$  for Laos,  $(-0.046)$  for Malaysia,  $(-0.056)$  for Myanmar,  $(-0.058)$  for Singapore,  $(-0.02)$  for Thailand, and  $(-0.046)$  for Viet Nam in 1999. (See Table 2.2) and (See Figure 2.2).

**Figure 2.2**  
**Educational Attainment Index by Sex in southeast countries in 1999**



Source: HDR, UNDP, 2000

But as we mentioned before, the Educational Attainment Index consists of two main indicators. It is expected that each one of them contribute to the gap by some percent.

Each one of the two indicators has a different value for each sex (Males and Females). Table 4.2 shows that in 1999, the adult literacy rate for Philippines for males was

(95.3) and (94.9) for females. The gap in adult literacy rate was  $(94.9 - 95.3 = -0.4)$ , but we cannot use that value as an index. We will translate it to an

index as follows:  $\left(\frac{-0.4}{100} = -0.004\right)$ . Since the Educational Attainment Index

gives The Adult Literacy Index a weight of  $\frac{2}{3}$  and The Gross Primary,

Preparatory, Secondary and Tertiary Enrolment Index a weight of  $\frac{1}{3}$ . We will use

only  $(\frac{2}{3})$  from the value of Adult Literacy Index, which was  $(-0.223)$  and we can

calculate it as follows:  $\left(\frac{2 \times -0.004}{3} = -0.0267\right)$ . This value represents

$\left(\frac{-0.00267 \times 100}{-0.011} = -24\%\right)$  from the gap in Educational Attainment Index, which

was  $(-0.011)$  in 1999.

The second indicator Gross Primary, Preparatory, Secondary and Tertiary Enrolment Ratio was (80) for males in 1999, and (84) for females and the gap between them is  $(84 - 80 = 4)$ . The index of gross primary, preparatory, secondary

and tertiary enrolment ratio was  $\left(\frac{80}{100} = 0.8\right)$  for males and  $\left(\frac{84}{100} = 0.84\right)$  for

females. The gap between them is  $(0.84 - 0.8 = -0.04)$ . But we use only  $\left(\frac{1}{3}\right)$  from

that gap which equal  $\left(\frac{-0.04}{3} = -0.0133\right)$  and this value represents

$\left(\frac{-0.0133}{-0.011} \times 100 = 121\%\right)$  from the total gap in Educational Attainment Index.

By using this analytical method, it was found that for Philippines, the Gross enrolment Index has a greater percent of the total gap in Educational Attainment Index, its percent was (121%) which, means higher for females than males in 1999, While the percent of Adult Literacy Index was (-24%) which, means higher for males than females in 1999. This means that the total gap in Educational attainment index for Philippines was  $(+0.011)$ , where + sign means females educational attainment index is higher than males educational attainment index. The gap in educational attainment index is due to the gap in gross

enrolment index by 121 % from the total gap in educational attainment index and the gap in adult literacy by -24 % (See Table 2.2). This result is very important to estimate the relation between The Gap in Educational Attainment Index and The Gap in Adult Literacy Index.

## **2.3 The Gap in GDP per Capita Index between Both**

### **Sexes.**

GDP per capita indicator is the result of dividing gross domestic product by total population for the same country. UNDP used the same way to calculate GDP per capita for males and females. UNDP divided the total gross domestic product into males' gross domestic product and females' gross domestic product according to the percentage of both sexes in labour force. They divided males gross domestic product by total males to get Males GDP per capita and the same for females.

In 1999, GDP per capita for males was (4,954 \$) and (1,847 \$) for females. But we can not use these values as indexes. So, we must translate them to indexes according to the formula:

$$W(Y) = \frac{\text{Log}(Y) - \text{Log}(Y_{\min})}{\text{Log}(Y_{\max}) - \text{Log}(Y_{\min})}$$

Where:

**W(Y)**, is the index of GDP per capita

**Log(Y)**, is the logarithm of actual GDP per capita in country under study.

**Log(Y<sub>min</sub>)**, is the logarithm of minimum value of GDP per capita, which was established as 100 \$.

**Log(Y<sub>max</sub>)**, is the logarithm of maximum value of GDP per capita, which was established as 40,000 \$.

The formula will be:

$$W(Y) = \frac{\text{Log}(Y) - \text{Log}(100)}{\text{Log}(40,000) - \text{Log}(100)}, \quad 0 \leq \text{Index} \leq 1$$

We can use this formula to calculate both females and males GDP per capita index in Egypt in 1999 as follows:

$$\text{Males GDP per Capita Index} = \frac{\text{Log}(27739) - \text{Log}(100)}{\text{Log}(40,000) - \text{Log}(100)} = 0.939$$

$$\text{Females GDP per Capita Index} = \frac{\text{Log}(13693) - \text{Log}(100)}{\text{Log}(40,000) - \text{Log}(100)} = 0.821$$

The gap between females and males is  $(0.939 - 0.821 = -0.118)$ , while the negative sign means against females. It was  $(-0.134)$  for Brunei,  $(-0.043)$  for Cambodia,  $(-0.112)$  for Indonesia,  $(-0.139)$  FOR Laos,  $(-0.129)$  for Malaysia,  $(-0.095)$  for Myanmar,  $(-0.101)$  for Philippines,  $(-0.084)$  for Thailand and  $(-0.056)$  for Viet Nam. (see Table 2.3) and (See Figure 2.3).

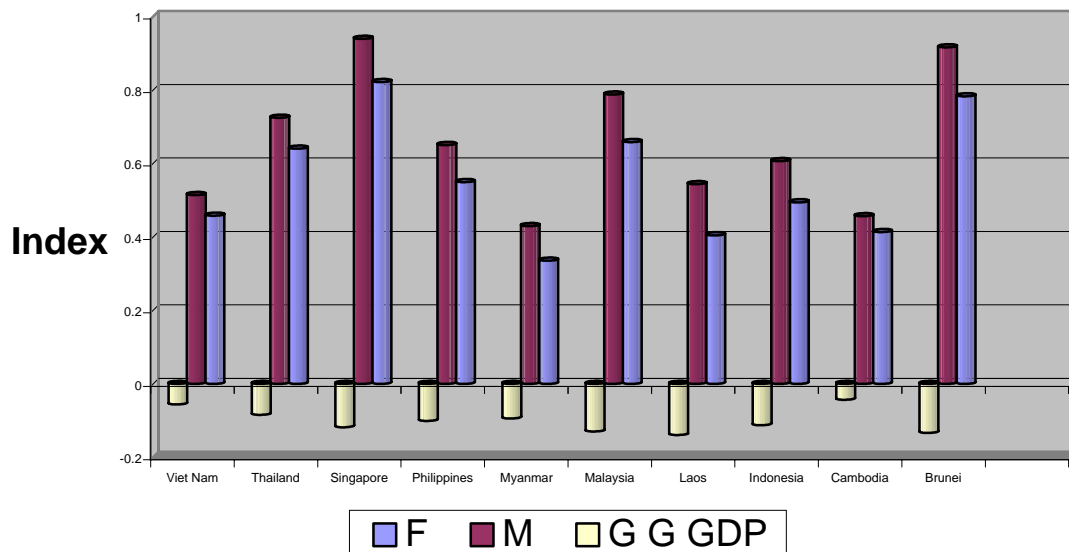
**Table 2.3: GDP per Capita by Sex in southeast countries in 1999**

Country	Females GDP	Males GDP	Females GDP index	Males GDP index	Gender Gap of GDP index
Brunei	10865	24163	0.78309	0.916596	-0.13351
Cambodia	1190	1541	0.41367	0.456847	-0.04318
Indonesia	1929	3780	0.49436	0.606728	-0.11237
Laos	1127	2594	0.40459	0.543835	-0.13925
Malaysia	5153	11183	0.65848	0.787907	-0.12942
Myanmar	746	1311	0.33567	0.429847	-0.09418
Philippines	2684	4910	0.54953	0.650416	-0.10088
Singapore	13693	27739	0.82173	0.93965	-0.11792
Thailand	4634	7660	0.64075	0.724703	-0.08395
Viet Nam	1552	2170	0.45804	0.514023	-0.05599

Source: computed from 2000 HDR from UNDP

**Figure 2.3**

**GDP per Capita Index by Sex for southeast countries in 1999**



Source: HDR, UNDP, 2000

### 2.4 The Gap in Human Development index between Both Sexes.

HDI is based on four main indicators, Life Expectancy at Birth, Adult Literacy Rate, Gross enrolment Ratio and GDP per Capita. We can calculate HDI for the total country or for females and males according to the formula:

This formula can be used to calculate Males Human Development Index for Singapore in 1999 as follows:

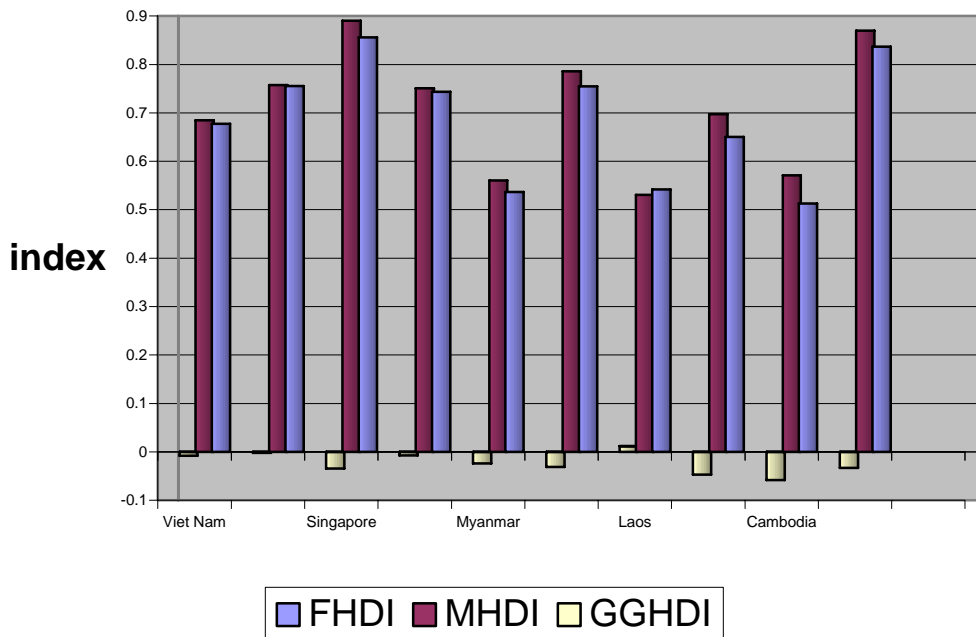
$$\text{HDI} = \left[ \frac{1}{3} \text{Life Expectancy Index} + \frac{2}{9} \text{Adult Literacy Index} + \frac{1}{9} \text{Gross enrolment Index} + \frac{1}{3} \text{GDP per Capita Index} \right] \quad \text{-----}(2)$$

$$\text{MHDI} = (0.279 + 0.214 + 0.084 + 0.313 = 0.89)$$

$$\text{FHDI} = (0.303 + 0.196 + 0.083 + 0.273 = 0.855)$$

**Figure 2.4**

**HDI by Sex in southeast countries in 1999**



Source: HDR, UNDP, 2000

The gap between females and males for Singapore is the sum of the four gaps, the gap in life expectancy at birth index, the gap in Adult Literacy Index, the gap in Gross Enrolment Index and the gap in GDP per capita index. Each one of them contributed in the gap in HDI, which was (-0.0393) by some percent. We can calculate the percent of each index in the total gap in HDI as follows:

The gap in life expectancy index between males and females was (+0.0733), which represented  $\left( \frac{+0.0733}{3 \times -0.0342} = -71.48\% \right)$  from the total gap in HDI in Singapore in 1999. The gap in adult literacy index was (-0.082), which represented  $\left( \frac{2x - 0.082}{9x - 0.0342} = 53.288\% \right)$  from the total gap in HDI. The gap in gross enrolment index was (-0.0342), which represented  $\left( \frac{1x - 0.0342}{9x - 0.0342} = 3.249\% \right)$  from the total gap in HDI in 1999. The gap in GDP per capita index was (-0.11792), which represented  $\left( \frac{-0.11792}{3x - 0.0342} = 114.947\% \right)$  from the total gap in HDI, which was (-0.098). The sum of the four percents is (-71.487+53.288+3.249+114.94 = 100), where the negative sign means against women. (See Table 2.4).





### **3. STUDY RESULTS & RECOMMENDATIONS**

#### ***3.1 Study Results***

This study examined the gap between males and females by using HDI, which depends on three main indicators, life expectancy at birth, Educational attainment and GDP per capita.

The main findings are:

- The Gap in Life Expectancy at Birth Index between males and females is very small and it is always + which, means females life expectancy at birth is always higher than males life expectancy at birth.
- The Gap in Educational Attainment Index between males and females is different between southeast countries. Cambodia and Laos have the biggest values in Educational attainment index , but Cambodia has low where Laos has high.
- The Gap in GDP per Capita between males and females is also very large, for all southeast countries and it is always against females.

Therefore, the gap in HDI is based mainly on the gaps in educational attainment and GDP per capita.

### **3.2 Recommendations**

To eliminate these gaps, it is recommended to direct to the elimination of the gap in education between males and females. This may be achieved through various methods, such as:

- 1- Convincing parents to the important of female education. It could be done by all kinds of Mass Media and by face to face communication.
- 2- For those who missed the formal education, classes for eliminating illiteracy are very important.
- 3- Through T.V programs, lessons for eliminating illiteracy can be used.
- 4- To decrease dropout rates to increase the enrolment rates especially among females, we have to change curriculum and including some kinds of training on skills to gain money in addition to education.
- 5- Improve school conditions such as pupils/teacher ratio, class density, existing of clean toilets and pure-water to attract females to continue in schooling.

For the second indicator GDP per capita, we can eliminate the gap between males and females through:

- 1- Encourage females to go to school and continue in schooling as much as possible for the firm relationship between education and L.F opportunities.
- 2- Governmental or non-governmental organizations that offer loans for youth should offer equal amount of loans for the two sexes.
- 3- Women banks should be supported as a new idea to give loans to women only. In India these banks greatly succeeded in return all loans taken by women.

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**WEB SITES:**

[www. Jhuccp.org](http://www.Jhuccp.org)

Table 2.2: Educational Attainment Index by Sex for Southeast Countries in 1999

Country	Females adult literacy rate	Males adult literacy rate	Females gross enrolment ratio	Males gross enrolment ratio	Females adult literacy index	Males adult literacy index	Females gross enrolment index	Males gross enrolment index	Females educational attainment index	Males educational attainment index	Gender Gap in adult literacy index	Gender Gap in gross enrolment index	Gender Gap in educational attainment index	2/3 Value of adult literacy index	%	1/3 Value of gross enrolment index	%	total%
Brunei	87.3	94.3	77	76	0.873	0.943	0.77	0.76	0.84	0.88	-0.07	0.01	-0.04	-0.05	107.7	0	-7.7	100
Cambodia	57.7	80.1	54	71	0.577	0.801	0.54	0.71	0.56	0.77	-0.22	-0.17	-0.21	-0.15	72.49	-0.06	27.5	100
Indonesia	81.3	91.5	61	68	0.813	0.915	0.61	0.68	0.75	0.84	-0.1	-0.07	-0.09	-0.07	74.45	-0.02	25.5	100
Laos	93.3	71.7	65	57	0.933	0.717	0.65	0.57	0.84	0.67	0.216	0.08	0.171	0.144	84.38	0.03	15.6	100
Malaysia	82.8	91.1	67	64	0.828	0.911	0.67	0.64	0.78	0.82	-0.08	0.03	-0.05	-0.06	122.1	0.01	-22	100
Myanmar	80.1	88.8	55	55	0.801	0.888	0.55	0.55	0.72	0.78	-0.09	0	-0.06	-0.06	100	0	0	100
Philippines	94.9	95.3	84	80	0.949	0.953	0.84	0.8	0.91	0.9	-0	0.04	0.011	-0	-25	0.01	125	100
Singapore	88	96.2	75	76	0.88	0.962	0.75	0.76	0.84	0.89	-0.08	-0.01	-0.06	-0.05	94.25	-0	5.75	100
Thailand	93.5	97	61	60	0.935	0.97	0.61	0.6	0.83	0.85	-0.03	0.01	-0.02	-0.02	116.7	0	-17	100
Viet Nam	91	95.4	64	69	0.91	0.954	0.64	0.69	0.82	0.87	-0.04	-0.05	-0.05	-0.03	63.77	-0.02	36.2	100

Table 2.4: **HDI by Sex for Southeast Countries in 1999**

Country	Females HDI	Males HDI	Gender Gap of life expectancy at birth	Gender Gap of Adult literacy index	Gender gap of gross enrolment index	Gender Gap of GDP	Gender Gap of HDI	% of life expectancy at birth	% of adult literacy index	% of gross enrolment index	% of GDP	%total
Brunei	0.836697	0.8695	0.026	-0.01556	0.00111	-0.0445	-0.0328	-79.521	47.37	-3.384	135.5	100
Cambodia	0.512779	0.5708	0.025	-0.04978	-0.0189	-0.0144	-0.0581	-43.06	85.74	32.53	24.79	100
Indonesia	0.650453	0.6972	0.021	-0.02267	-0.0078	-0.0375	-0.0468	-45.12	48.44	16.62	80.05	100
Laos	0.542197	0.5306	0.001	0.048	0.00889	-0.0464	0.0116	9.5908	414.3	76.73	-400.6	100
Malaysia	0.754604	0.7856	0.027	-0.01844	0.00333	-0.0431	-0.031	-87.725	59.44	-10.74	139	100
Myanmar	0.536557	0.5606	0.027	-0.01933	0	-0.0314	-0.0241	-110.84	80.36	0	130.5	100
Philippines	0.74351	0.7508	0.023	-0.00089	0.00444	-0.0336	-0.0073	-312.22	12.18	-60.92	461	100
Singapore	0.856132	0.8903	0.024	-0.01822	-0.0011	-0.0393	-0.0342	-71.484	53.29	3.249	114.9	100
Thailand	0.75525	0.7571	0.033	-0.00778	0.00111	-0.028	-0.0019	-1749.7	415.2	-59.31	1494	100
Viet Nam	0.677124	0.685	0.026	-0.00978	-0.0056	-0.0187	-0.0079	-331.22	124	70.47	236.7	100

