

*Research Paper*

## **Mapping Economic Condition of Bangladesh: A Formal Regionalization Based on Socioeconomic Indicators**

**J. I. Adib<sup>1\*</sup>, S. Islam<sup>1</sup>, A. Das<sup>2</sup>, S. Roy<sup>2</sup>**

### **Abstract**

The economic circumstance of Bangladesh is crucial for the attainment of its development objectives, as globalization has prompted apprehensions regarding regional development. Bangladesh, the second-largest economy in South Asia, is currently ranked 35th in nominal GDP and 25th in nominal GDP based on purchasing power parity. The country's GDP increased by 5.82 percent in 2023-24, compared to 5.78 percent in 2022-23. The purpose of this investigation is to determine the formal regions of Bangladesh concerning their economic circumstances and to identify the factors that either promote or hinder economic development in different districts. The research was analysed across 64 districts using the Composite Weighted Index Method, which considered both economic and non-economic factors such as remittance inflow, literacy rate, solvency head count ratio (HCR), bank deposit, and employment rate. The study analysed key economic indicators such as employment, income, revenue, budget allocation, infrastructural development, educational opportunities, and healthcare facilities. It found a loop connectivity between government revenue, budget allocation, employment, and income across different districts, which is crucial for overall economic growth. This allows policymakers to more effectively allocate resources and to personalize interventions, thereby facilitating targeted efforts to stimulate economic growth. The findings can be a source of help for future policy decisions and contribute to the nation's development objectives.

**Keywords:** Economy, Employment, Composite Weight, Formal Regionalization

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### **1. Introduction**

Bangladesh is a major emerging market (BBS, 2022). Its economy relied heavily on agriculture for ages. However, the economy is departing from this heritage and shifted toward industry. Despite this, service sectors dominate the GDP (Sarker, 2024). Corruption, inequity, and ineffective management methods prevent meaningful improvement (Sarker, 2024). Bangladesh, the second-largest economy in South Asia, ranks 35th in nominal GDP and 25th in purchasing power parity GDP (BBS, 2022). Despite a little gain in the current fiscal year, Bangladesh's economy grew slower by a drop in industrial and agricultural output (Sarker, 2024). According to provisional figures from the Bangladesh Bureau of Statistics (BBS), GDP rose 5.82 percent in 2023-24, up from 5.78 percent in 2022-23. A large domestic retail market, a rising middle and

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<sup>1</sup> Undergraduate student, Department of Urban and Regional Planning, Rajshahi University of Engineering and Technology

<sup>2</sup> Assistant Professor, Department of Urban and Regional Planning, Rajshahi University of Engineering and Technology

\*Corresponding author. Email: [junaidadib5743@gmail.com](mailto:junaidadib5743@gmail.com)

Received 20 August 2024, Revised 10 December 2024, Accepted 28 December 2024.

affluent class, and rapid digital usage drive growth (Islam et al., 2018).

Bangladesh's development is dependent upon a comprehension of its regional economies (Islam et al., 2018). Regional development concerns have been accelerated by globalization (Islam et al., 2018). Although developed regions may expand, underdeveloped or marginalized regions may become gradually neglected (Islam et al., 2018). Bangladesh, like many emerging nations, faces capital liquidity shortages, foreign exchange uncertainty, and inflationary pressures (Mohajan & Mohajan, 2013). So, it is important to analyse the regional economic condition in order to effectively deal with these problems. The objective of the research is to explain more complex economic processes in individual districts and, in this case, point out the districts where equity growth policies may be adopted. This study is motivated mostly due to the inability to address issues related to regional income inequality in the context of Bangladesh. Many scholars have at different times evaluated the economy of the country but such studies are mostly based on macro national data and do not take into account location specifics. The current work overcomes the limitations of earlier studies by adopting a more systematic approach to the identification of regions as based on the analysis of economics using a variety of socio-economic features and allows for a more detailed approach to the economic processes occurring within regions.

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## 2. Literature Review

More than one conceptualization has focused on explaining spatial economic conditions including inter-regional models of development, socio-economic measures, core-periphery theory and others, which contributed to development of more than one inter-region variation frameworks. These theoretical viewpoints stress the need to analyse both structural and spatial factors of economic activities in order to have a more effective policy. In order to do this, the researchers adopted a Composite Weighted Index Method as a more rigorous and multi-faceted approach to the regional analysis. With this summation approach, it is much easier to consolidate multiple social and economic measures into one single index which allows one to undertake comparisons of economic levels among the regions and look also to the distribution of economic activity within the aggregate economic regions (Glasson et al., 2016).

The potential risks associated with imprecise interpolation in regional demographic methods have been largely accepted internationally. For instance, in India, Transnational Networks has found Composite Weighted Index Method to work to evaluate socio-economic status and target locations for infrastructure investments (Mishra, 2024). Weighted index approaches have also been applied in Sub-Saharan African regions to provide a composite index of inclusive growth in 32 sub-Saharan African countries

between 1995 and 2014 by taking into account the importance of the informal sector. (Messono & Homère III, 2020). In China, the composite indices served to mark borders of economic zones to identify China's ecological and socio-economic transition zone and act as guide in making strategic policy decisions (Zhang et al., 2022). These examples highlight the applicability of Composite Weighted Index Method to regional issues, especially in developing countries where data and its variability and availability are a real challenge. On the other hand, Bangladesh is a country with a high degree of economic dualism, with metropolitan areas and poor rural areas and hence Composite Weighted Index Method is suitable for this research. This method uses different weights for each region which makes the method better reflect the country's socio-economic conditions. (Glasson et al., 2016).

The reason for employing Composite Weighted Index Method is its strength in dealing with multiple dimensions and takes into consideration indicators of income, infrastructure, education and employment within an analytical interpretation of the dimensions (Glasson et al., 2016). In contrast to other methods such as principal component analysis or cluster analysis, Composite Weighted Index Method is less ambitious as it is essentially more realistic and offers greater transparency regarding weight assignments, which makes the results more useful in terms of policies (Singh et al., 2024).

Based on these considerations, the study sets a hypothesis that regions characterised by higher composite socioeconomic scores have better economic performance. It further assumes, that infrastructure and development of industrial production are pivotal in determining regional classifications. In addition, there are likely to be large differences between rural areas and towns in Bangladesh, which are likely to reflect differences in wealth and resource availability. These hypotheses, which are more or less corroborated by theoretical and empirical evidence, serve as a theoretical basis for further investigations into regional processes and verification of the results obtained based on the Composite Weighted Index Method. The findings are intended to enrich the larger debate on regional planning and development by providing relevant implications for the socioeconomic context of Bangladesh.

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### **3. Methodology**

#### **3.1. Data Requirement**

Composite Weighted Index Method relies on direct economic measures such as population density, adult literacy rate, employment, solvency, remittance inflow and bank deposits, which are solely Composite Weighted Index Method indicators. The additional indicators used to explain the CWIM results (poverty rate, disaster risk,

income per household, sectoral employment, infrastructure development, and health expenditure) provide additional context and help further explain how the economy of the districts is functioning in practice, exposing social polarization and the general socioeconomic status.

While Composite Weighted Index Method employs poverty incidence, socioeconomic status and asset ownership, the study manages to infuse a variety of additional socioeconomic standards in the case of Bangladesh. Population Density indicates the number of people dispersed in a geographic area and perhaps their potential contribution to the resource distribution and other economic activities. Adult Literacy Rate (15+) refers to the stock of education-related human capital that is needed for productivity and development of region's workforce. Employment in Major Sectors-Agriculture, Industry and Service-stresses economic framework and leading industries across countries and the level of sectoral dependence. The Solvency Headcount Ratio (HCR), a proxy for economic stability and poverty levels, proves to be very useful in determining the financial status of populations. Remittance Inflow (In million USD) measures how foreign earnings assist the local economies giving some respite to households in the rural areas. Last but not least, Bank Deposits (In million TK) confirm the degree of outreach and savings practices as well as through the region's economic and liquidity activities. End of the day, these instruments are designed to measure and combine the most important primary socio-economic aspects that define the economic status of the districts under the study.

Other indicators are determined so as to provide a more detailed and contextual description of the disparities seen in the regions which have been assessed using the Composite Weighted Index Method tools. The poverty rate highlights socioeconomic challenges and whether the Composite Weighted Index Method results are consistent with the well-being of residents. The disaster risk level indicates the degree to which humanitarian disasters can have a bearing on economic performance. Income per household offers an observable factor of affluence and the standard of living. Agricultural and service employment reveals the economic structure and diversity of the region. Divisional revenue and spatial disparities in infrastructure—such as roads, hospitals, market building—underscore the necessity of governmental investment in fostering economic growth. A robust association exists among literacy rates, health expenditure, and productivity, illustrating the role of human resources in development. Moreover, the existence of development hubs and markets signifies dynamic trade and robust local economies. These factors elucidate the economic situation at the district level and substantiate the analysis's findings. These are important as they assist in contextualising the data and explaining the economic conditions at the district level.

In composite terms these two areas of indicators already give an ample scope of understanding and evaluation of the economic conditions of the regions in question.

### 3.2. Data Collection

Data for the selected variables were collected from secondary sources, including government reports, national surveys, and databases such as the Bangladesh Bureau of Statistics (BBS), Bangladesh Bank, and other relevant organizations. Wherever possible, the most recent and reliable datasets were prioritized to ensure accuracy.

### 3.3. Data Analysis

The study examined 64 Bangladeshi districts. Implementing the Composite Weighted Index Method developed the methodological foundation. The stepwise approach included Weight Calculation of Individual Factors, Composite Weight Calculation of Each District, and Class Interval Selection. These steps were followed by class interval computation utilizing the Equal Class Interval Method, Arithmetic Method, and Mean Standard Deviation Method.

#### Step 1: Weight Calculation of Individual Factors

Weight calculation of individual factors is performed using the following equation 1 (Glasson et al., 2016). Here both economic and non-economic factors are considered according to the indicators of economy provided by BIDS.

$$W_n = \text{Mean of } \log_{10}(X_n) / \text{Standard Deviation of } \log_{10}(X_n), n = 1, 2, 3, \dots \dots \dots (1)$$

Here,  $X_n$  is the value of each variable. The calculation shows following result-

$$W_1 (\text{Population Density}) = 9.610057038$$

$$W_2 (\text{Adult Literacy Rate 15+}) = 5.253270995$$

$$W_3 (\text{Employment in major Sectors-Agriculture, Industry \& Service}) = 6.742435499$$

$$W_4 (\text{Solvency HCR}) = 4.506717287$$

$$W_5 (\text{Remittance Inflow}) = 4.150021586$$

$$W_6 (\text{Bank Deposits}) = 9.837103092$$

#### Step 2: Composite Weight Calculation of Each District

The composite weight for each district was calculated using equation (2) (Gupta, 2020).

Composite Weight, C.W =

$$\frac{[W_1 * \log_{10}(X_1)] + [W_2 * \log_{10}(X_2)] + [W_3 * \log_{10}(X_3)] + [W_4 * \log_{10}(X_4)] + [W_5 * \log_{10}(X_5)] + [W_6 * \log_{10}(X_6)]}{W_1 + W_2 + W_3 + W_4 + W_5 + W_6} \dots \dots \dots (2)$$

#### Step 3: Selection of Class Interval

Assuming five preferred number of classes, three methods were utilized for calculating the class interval:

##### i. Equal Class Interval Method

In Equal Class Interval Method, firstly the class interval (X) is calculated by following equation (3) (Gupta, 2020).

$$X = (\text{Maximum value} - \text{Minimum value}) / \text{Number of classes required} \dots \dots \dots (3)$$

The calculation found:

Maximum Value = 2.719544458, Minimum Value = 1.945597742, Number of Classes = 5

## ii. Arithmetic Mean Method

Based on the class interval, the Arithmetic Mean Method determines the five classes. The frequency histogram (*Figure 1*) shows that the data does not have a normal distribution. This method used equation (4) (Gupta, 2020).

$$A = X + 2X + 3X + \dots + NX + B \quad \dots\dots\dots(4)$$

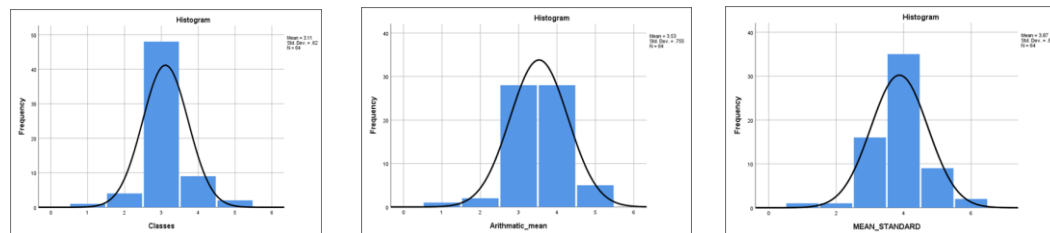
Here, A = Maximum Value = 2.719544458, B = Minimum Value = 1.945597742, X = Class interval, N = Number of Class

## iii. Mean Standard Deviation Method

The Mean Standard Deviation Method calculates mean of composite score mean and standard deviation.

The *Figure 1* shows histogram of Normal Distribution in Equal Class Interval Method, Arithmetic Method and Mean Standard Deviation Method respectively.

In equal class interval, arithmetic method, and mean standard deviation method the skewness was found to be 0.341, -0.337 and -0.244 respectively. The final choice on class interval from these three methods is decided based on the skewness value close to zero. Skewness around zero indicates the normal distribution of data. Among these three methods, mean standard deviation method has a skewness value of -.244, close to zero. Therefore, this approach is ideal for preparing choropleth maps.



**Figure 1.** Histogram of Normal Distribution in Equal Class Interval Method, Arithmetic Method and Mean Standard Deviation Method

*Source: Authors' Preparation, 2024*

## 4. Data Interpretation and Result

### 4.1. Regional Delineation

The composite score divided all 64 districts into five regions or ranges. These zones are Very Low, Low, Moderate, High, and Very High on the basis of their economic

condition. Class Range, categories, districts, frequency, and percentage of the trend are shown in *Table 1*.

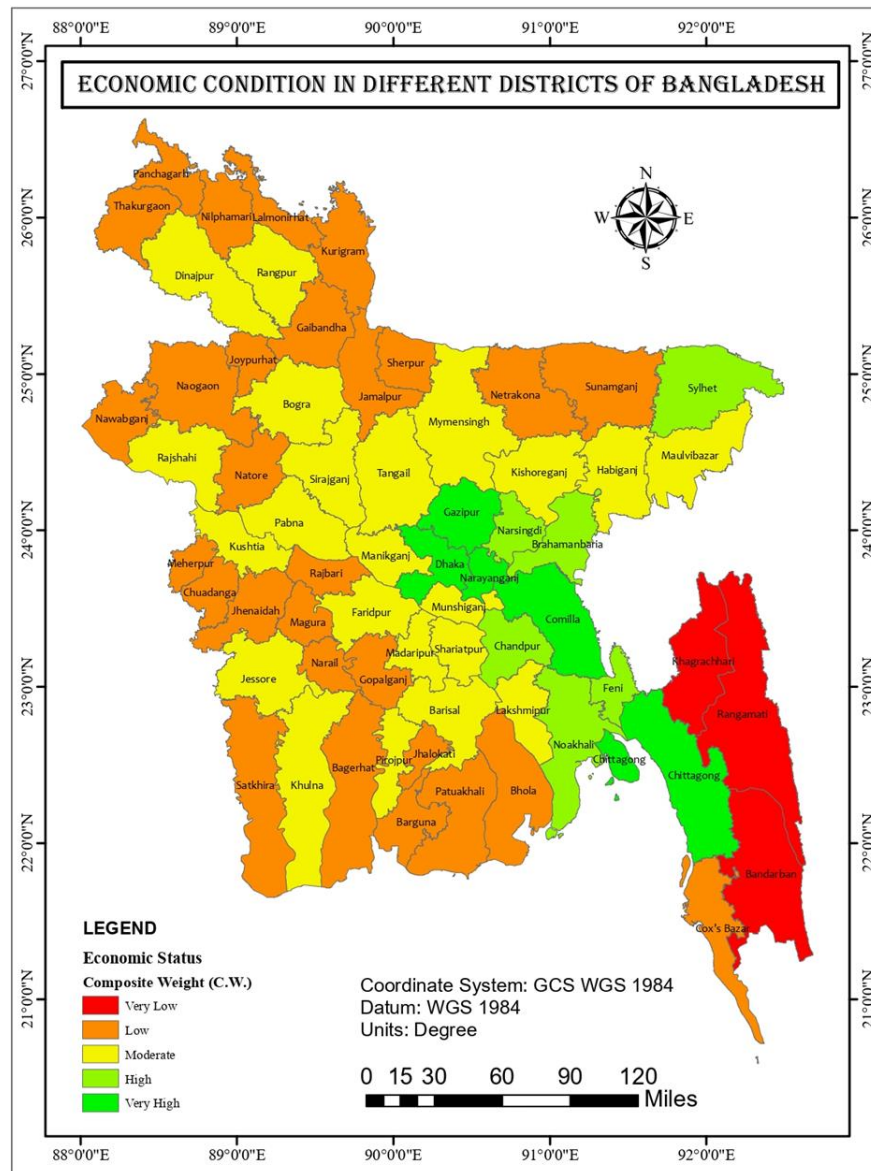
**Table 1.** Overview of the ranges, categories, districts & percentages

Class Ranges	Categories	Districts	Percentage
1.94 - 2.10	Very Low	Rangamati, Bandarban, Khagrachari	4.68
2.11 - 2.25	Low	Panchagarh, Thakurgaon, Lalmonirhat, Nilphamari, Kurigram, Joypurhat, Naogaon, Gaibandha, Nawabganj, Sherpur, Jamalpur, Natore, Netrokona, Sunamganj, Meherpur, Chuadanga, Jehnaidah, Magura, Narail, Gopalganj, Rajbari, Shatkhira, Bagerhat, Barguna, Jhalokati, Patuakhali, Bhola, Cox's Bazar	43.75
2.26 - 2.33	Moderate	Dinajpur, Rangpur, Bogura, Rajshahi, Kushtia, Pabna, Manikganj, Sirajganj, Tangail, Mymensingh, Kishoreganj, Habiganj, Maulavibazar, Faridpur, Madaripur, Munshiganj, Shariatpur, Jessore, Khulna, Barisal, Pirojpur, Lakshmipur,	34.39
2.34 - 2.41	High	Narsingdi, Brahmanbaria, Chandpur, Noakhali, Feni, Sylhet	9.375
2.42 - 2.72	Very High	Comilla, Gazipur, Narayanganj, Dhaka, Chittagong	7.8

*Source: Authors' Preparation, 2024*

#### 4.2. Formal Regionalization

The composite weight, derived from a combination of social and economic parameters including remittance inflow, literacy rate, solvency (Head Count Ratio), bank deposits, and employment rate, has been utilised to perform the subsequent formal regionalization as mentioned in *Figure 2*.



**Figure 2.** District-wise Economic Condition of Bangladesh

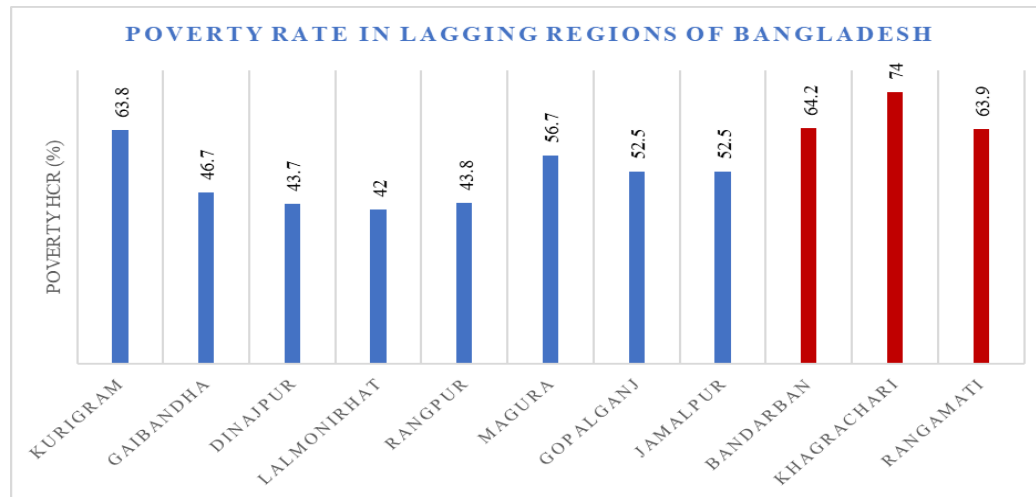
*Source: Authors' Preparation, 2024*

- **Districts Under Very Low Economic Conditions:**

Economic conditions in these districts are characterized by limited agricultural output, inconsistent income, inadequate infrastructure, low literacy, and dependence on jhum cultivation and irregular labor, leading to widespread poverty (Ahasanullah et al., 2018). 4.68% of districts have extremely low economic conditions, showing that Rangamati, Bandarban, and Khagrachari are very poor. Agriculture dominates these regions' economies. The majority of individuals in this area engage in jhum cultivation, a low-



yield farming technique. Most agricultural output is self-consumed. Although agricultural productivity is limited, jhum cultivation and home gardening provide a major revenue in these districts. The unpredictability of jhum output makes income erratic. Male day laborers earn 200 TK per day, while female laborers earn 150 (Bangladesh Bureau of Statistics & World Food Programm, 2022). Diverse topography makes transportation infrastructure inefficient. Poor transportation may also contribute to this region's low literacy rate. Often students cannot attend school due to poor transportation (Ahasanullah et al., 2018).



**Figure 3.** Poverty Rate in Lagging Regions of Bangladesh (Data Source: UNDP 2023)

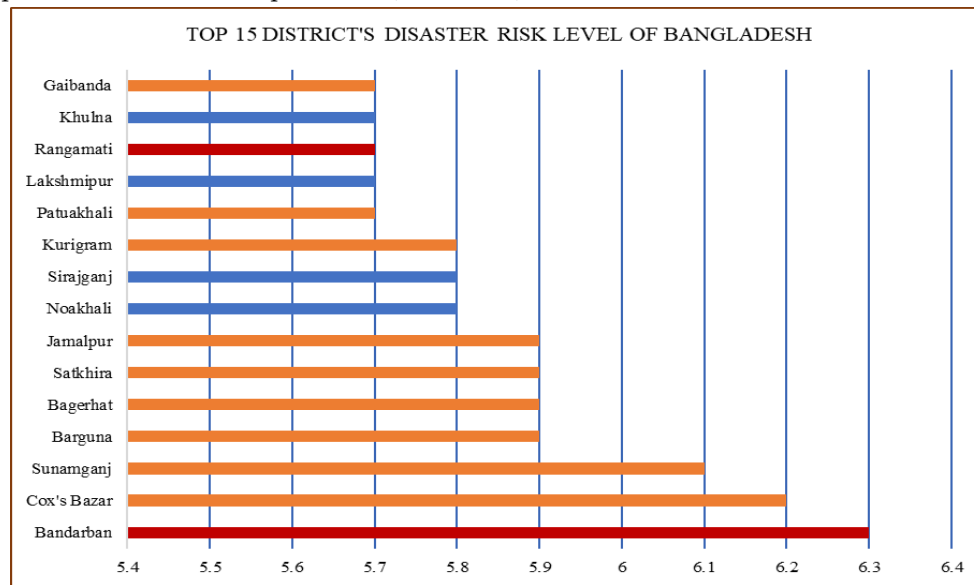
*Source: Authors' Preparation, 2024*

According to UNDP 2023 report (Figure 3) Rangamati, Bandarban, and Khagrachari have the highest poverty rates in Bangladesh with 73.8%, 64.5%, and 77.4%, respectively, resulting in an extremely poor economy.

- **Districts Under Low Economic Condition:**

Around 43.75% of districts have poor economic conditions, with 28 districts being significantly less prosperous than the rest, largely due to natural disasters. (Ministry of Disaster Management and Relief (MoDRM) & United Nations Bangladesh, 2022). Chapai Nawabganj's mango business drives the economy, although only seasonally (Rahman et al., 2010). Jamuna Sar Karkhana gives fertilizer expertise and plenty of employment in Jamalpur (Mohajan & Mohajan, 2013). Agriculture in Thakurgaon and Nilphamari is facing challenges due to drought, leading to potential food crises. Extreme heat increases viral attacks, causing diarrhea, high fever, and respiratory issues. Economy of Natore and Meherpur is dependent on farming with a share of 65.4% to 68.95% of the families being engaged in the sector. Alternately, Lalmonirhat faces floods due to high river levels. Similarly, Satkhira District in Bangladesh faces cyclones, damaging infrastructure and

affecting health, livelihoods, and poverty. Alongside, Bhola, Barguna, Jhalokati, and Patuakhali are seem to be struggling economically, due to frequent floods, lack of opportunities, and credit problems (JICA,2022) .



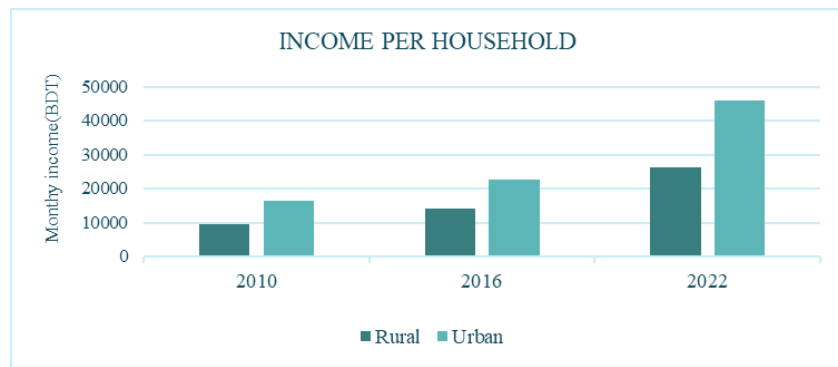
**Figure 4.** Disaster risk level of Bangladesh (Data Source: INFORM Risk Distribution 2022)

*Source: Authors' Preparation, 2024*

Figure 4 includes INFORM Risk Distribution 2022 statistics. The bar chart shows 15 districts, 9 of which are economically poor. Y-axis represents risk level out of 10. They farm with Grameen and BRAC loans. Landless households gain from day labour. Men earn 300 TK and women 150 TK for day labour (JICA, 2022).

### **Assessing the Pattern of Very Poor and Poor Economic Conditions**

The very low and low classifications are largely rural. Urban areas have many jobs in services, finance, technology, healthcare, and manufacturing. Due to the increased cost of living and concentration of higher-paying businesses, metropolitan jobs usually pay more. Urban areas' economic growth attracts more people and investment, improving their economic conditions compared to rural places.



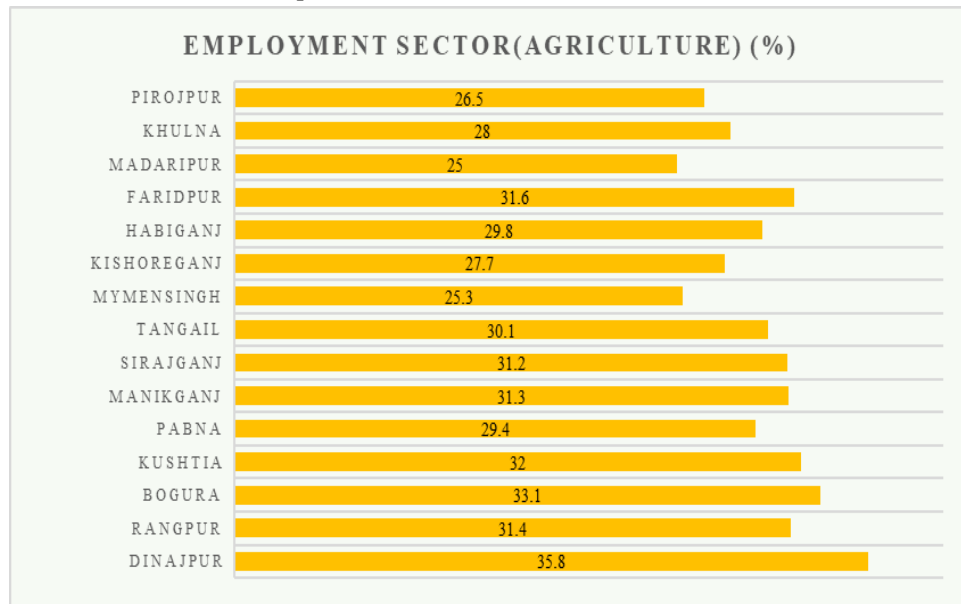
**Figure 5.** Income per Household (BDT) (Data Source: BBS, 2023)

*Source: Authors' Preparation, 2024*

Figure 5 shows that rural households earn much less than urban households, resulting in a dismal economy (BBS, 2023).

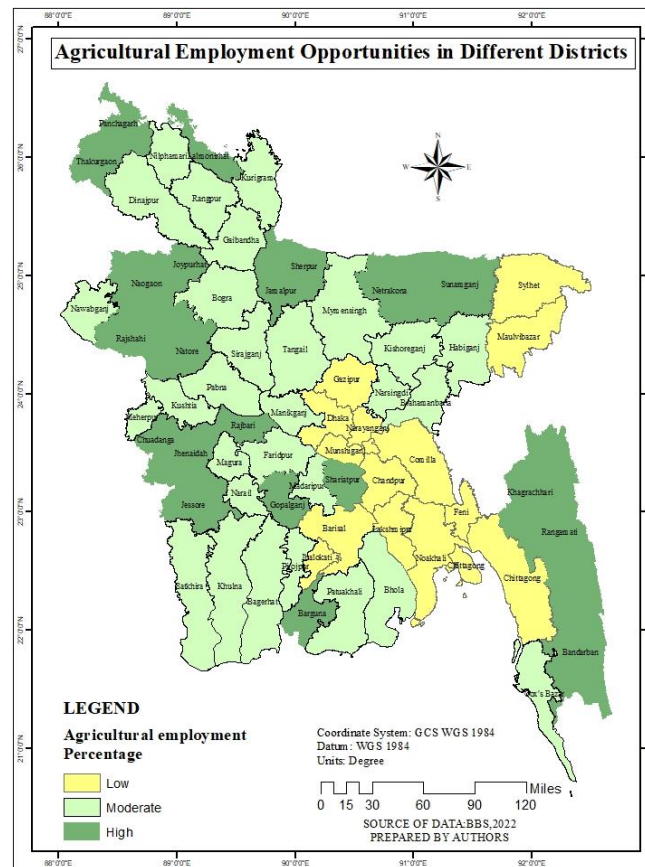
- **Districts Under Moderate Economic Conditions:**

22 districts (34.4%) are somewhat economically. 15 of 22 districts employ moderately in agriculture (BBS, 2023). This sector strongly impacts macroeconomic goals including employment, poverty reduction, human resources development, food security, and other district economic and social pressures.



**Figure 6.** Employment Sector (Agriculture) (%) (Data Source: BBS, 2023)

*Source: Authors' Preparation, 2024*



**Figure 7.** District-wise Agricultural Employment (Data Source: BBS, 2023)

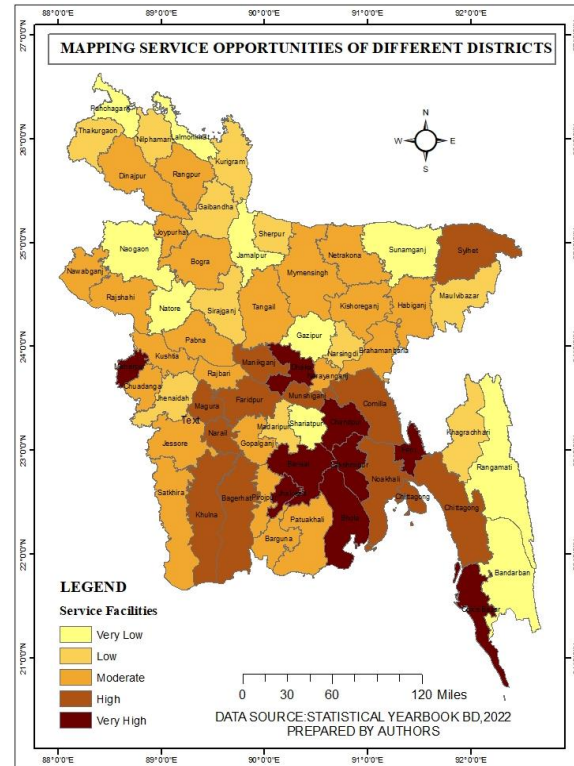
*Source: Authors' Preparation, 2024*

Districts like Dinajpur, Tangail, Sirajgonj, and Bogura, with moderate economic conditions (Figure 6 and 7), show high or moderate agricultural employment, despite maintaining a moderate standard of living and minimal stable income. Again, a few districts, such as Nilphamari, Joypurhat, and Noagoan, generate a higher level of agricultural employment (BBS, 2023). However, they remain in a lower economic position. This phenomenon may be associated with the syndication and stock business conducted by certain corrupt merchants on agricultural products, which results in the farmers being denied the fair pricing of their products. However, a stable and moderate economic environment will be achieved if the producers receive their justifiable product value.

- **Districts Under High Economic Condition:**

Six districts (9.38%) are slightly economically. Brahmanbaria, Chandpur, Noakhali, Feni, Sylhet. Service employment is high in Chandpur, Noakhali, Feni, and Sylhet. Sylhet is Bangladesh's economic centre, along with Dhaka and Chittagong. Global companies and industries, like the tea industry, make money in Sylhet, a significant commercial and

financial center. Sylhet has Bangladesh's 5th largest economy. Its nominal GDP is \$16 billion and its PPP is \$40 billion, making it the third largest after Dhaka, Chittagong, Khulna, and Rajshahi (Nuzulia, 1967). The richest part of Bangladesh is Sylhet. The region has Bangladesh's only oil field and a big gas reservoir. Narsingdi and Brahmanbaria are developing and close to Dhaka, affecting the economy and creating jobs in industry, commercial, service, and private sectors (Nuzulia, 1967).



**Figure 8.** District-wise Service Employment (Data Source: BBS, 2023)

*Source: Authors' Preparation, 2024*

**Table 2.** Employment in service sector (%) of districts under high economic condition

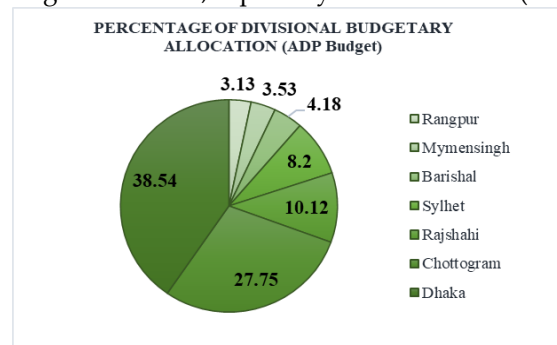
DISTRICT	EMPLOYMENT SECTOR (SERVICE) (%)
Narsingdi	40.5
Brahmanbaria	49.5
Chandpur	61.2
Noakhali	55.1
Feni	63.4
Sylhet	57.6

*Source: Authors' Preparation, 2024*

BBS data (Table 3 & Figure 8) shows that most of these areas have significant and diverse service sectors. It includes utilities, wholesale and retail trade, transportation, storage, communications, real estate, rental, commercial, and communal activities, etc.

- **Districts Under Very High Economic Condition:**

Dhaka, the largest economy in Bangladesh, contributes \$213.3 billion to the nominal gross state product and \$740 billion in purchasing power parity in 2022. It generates 40% of Bangladesh's GDP and is home to Bangladesh Bank, the Stock Exchange, BEXIMCO, Bashundhara Group, and PRAN-RFL Group, with a market value of \$72.1 billion. (Mohajan & Mohajan, 2013). Gazipur, near the capital city, is a major employment, industry, commerce, and entertainment area in India, with 30% of its urban population and one-third of India's ready-made export garment factories. (Sarker, 2024). Bangladesh's industrial hub Narayanganj attracts global and local investment. Clothing and textiles employ the majority of its workers. It makes 55% of the nation's knitwear and 33% of textile mills (Noman et al., 2016). Chittagong, Bangladesh's busiest port and export hub, boasts a PPP GDP of \$116 billion and a nominal GDP of \$43 billion, ensuring ample job opportunities and a thriving economy. (Malmö, 2003). Comilla's topography, agro-ecology, land-use, and farming methods varied. Comilla's economy has grown through trade and cottage businesses, especially 'Khadi' textiles (Sarker, 2024).



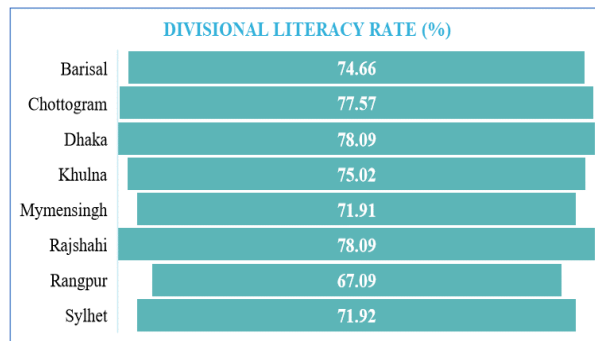
**Figure 9.** Percentage of Divisional Budgetary Allocation  
(Data Source: ADP Budget, 2023-24)

*Source: Authors' Preparation, 2024*

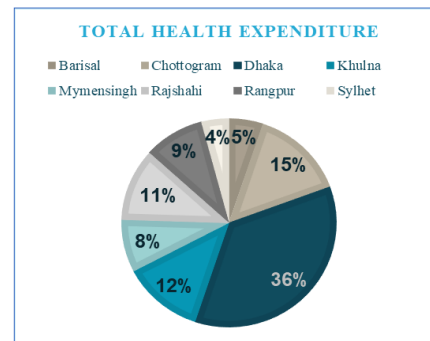
BIP journal volume 11 (Figure 9) states that. Dhaka and Chittagong are economically stronger, with higher taxes and incomes. Tax-rich areas boost economic activity and property values, receiving more government money. Conditional grants should be given to build infrastructure and public services in these districts.

#### **Assessing the Pattern of Moderate, High and Very High Economic Conditions**

According to BBS statistics, the districts of Dhaka and Chittagong division are significantly ahead of the others when we examine the literacy rate (Figure 10), and health



**Figure 10.** Divisional Literacy Rate (%)  
(Data Source: BBS, 2023)



**Figure 11.** Total Health Expenditure  
(Data Source: BBS, 2023)

*Source: Authors' Preparation, 2024*

expenditure (Figure 11), which are all key funding sources of ADP. Again, the districts of Rangpur and Barisal divisions are relatively deficient in this regard. As a result of the increased revenue generated by Dhaka and Chittagong, they were able to secure additional ADP funding to invest in the infrastructure, education, and health sectors. This investment ultimately led to the improvement of these sectors, as evidenced by the bar and pie charts. Consequently, the economies of these districts are more prosperous than those of other regions.

A study of divisions may explain some aspects of the discussion around districts as divisions are higher administrative units comprising several districts and, therefore, demonstrate larger geographical variations as well as the patterns of



**Figure 12.** Number of Growth Centre & Market (Data Source: BBS, 2023)

*Source: Authors' Preparation, 2024*

development in the regions. Whereas, the districts provide a more detailed perspective of the social and economic conditions of the people, the divisions provide the basis for an investigation of the broader parameters like infrastructure level, material resources and policies formulated and their effects. This also helps in understanding the political and administrative factors that affect economic conditions at this level, for example the amount of budgetary resources given to each division. This helps explain the general trends and differences that prevailed in the district status that may not be easily observed

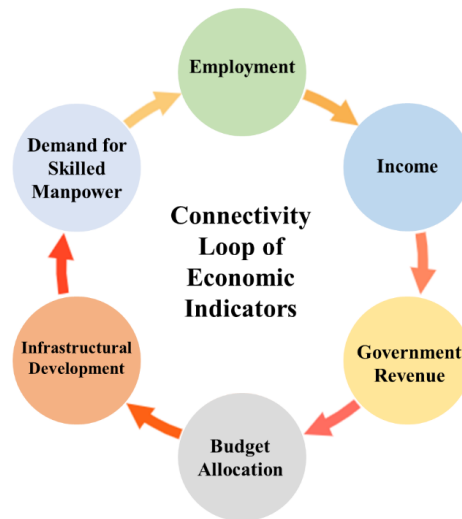
at the local level and therefore help to understand the relationship between region and local polices which enables a more focused approach on development at the district level. Since the market and growth centre are the main trade and commercial hubs, the economy is greatly affected. According to BBS statistics, the bar chart (*Figure 12*) shows districts with higher economic standing have more markets. Dhaka and Chittagong have the most markets (1013 and 863). Rangamati, Bandarban, and Khagrachari have the fewest markets and are economically weak. So, the exchange of trade and the commercial sector also plays a significant role in the economy of any country.

### Connectivity Loop of Economic Indicators

The "Connectivity Loop of Economic Indicators" shows how major economic factors are interdependent and lead to a snowballing effect. Employment leads to the generation of an income that improves purchasing power and, in turn, government revenues through taxes. Increased government revenues ensure more budgetary allocations toward infrastructural development, which will improve economic efficiency and attract investments. This development calls for skilled manpower, creating further employment opportunities and thus maintaining the continuity of the cycle.

The loop reflects theories like Keynesian economics, Wagner's Law, and human capital theory, emphasizing the interconnectedness of labour, income, public spending, and infrastructure. This cycle underpins sustainable economic growth by reinforcing the mutual dependence of its components.

Significant outcomes of the investigation can be represented using this cycle of *Figure 13*-



**Figure 13.** Connectivity Loop of Economic Indicators

*Source: Authors' Preparation, 2024*



Poverty and natural disasters are linked to lower economic activity, with income being heavily influenced by employment opportunities. Economically moderate and higher-class areas like Pirojpur, Khulna, Feni, and Sylhet have more employment opportunities. Government revenue generates more budget allocation, with districts like Dhaka and Chittagong having greater opportunities. Budget allocation is also linked to infrastructural development, educational opportunities, and healthcare facilities. As infrastructural development increases, demand for skilled manpower increases, creating employment opportunities. These factors together represent the overall economic status of a region, highlighting the connectivity of economic indicators.

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## 5. Conclusion

The research explains the economic conditions of each of the 64 districts of Bangladesh in a logical manner through the Composite Weighted Index Method or CWIM. The studies placed the districts into five Economic Classes which are Very Low class, Low class, Moderate class, High class and the Very High class. It is also evident from the study that the divide between the urban and the rural populations is substantial in terms of infrastructure, employment, economic mobility and resilience. Areas of Dhaka and Chittagong are region of sound economic growth driven by industries and services while regions such as Rangamati and Bandarban have areas stricken with poverty and little economic resources.

The Loop indicated an interrelationship of the revenue generation with that of the budget planning, infrastructure and employment in terms of balanced regional economic development. These insights are useful to policymakers as they seek to formulate measures that target such areas to have their resources spent more judiciously on them in promoting more complete development. The Methodological framework and the findings of the study not only provide further better understanding for economic operations at district level but also highly enhance the debates of regional planning and economic policy making in the country.

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