



ASEAN FOUNDATION



ASEAN  
DATA SCIENCE  
EXPLORERS



**8** DECENT WORK AND  
ECONOMIC GROWTH



# **THE STEPPING STONE:**

## EMPOWERING YOUTH EMPLOYMENT WITH SMART ECONOMY

SDG Targets:  
8.2, 8.5, 8.6

# SDG TARGETS & OBJECTIVE

## **Objective:**

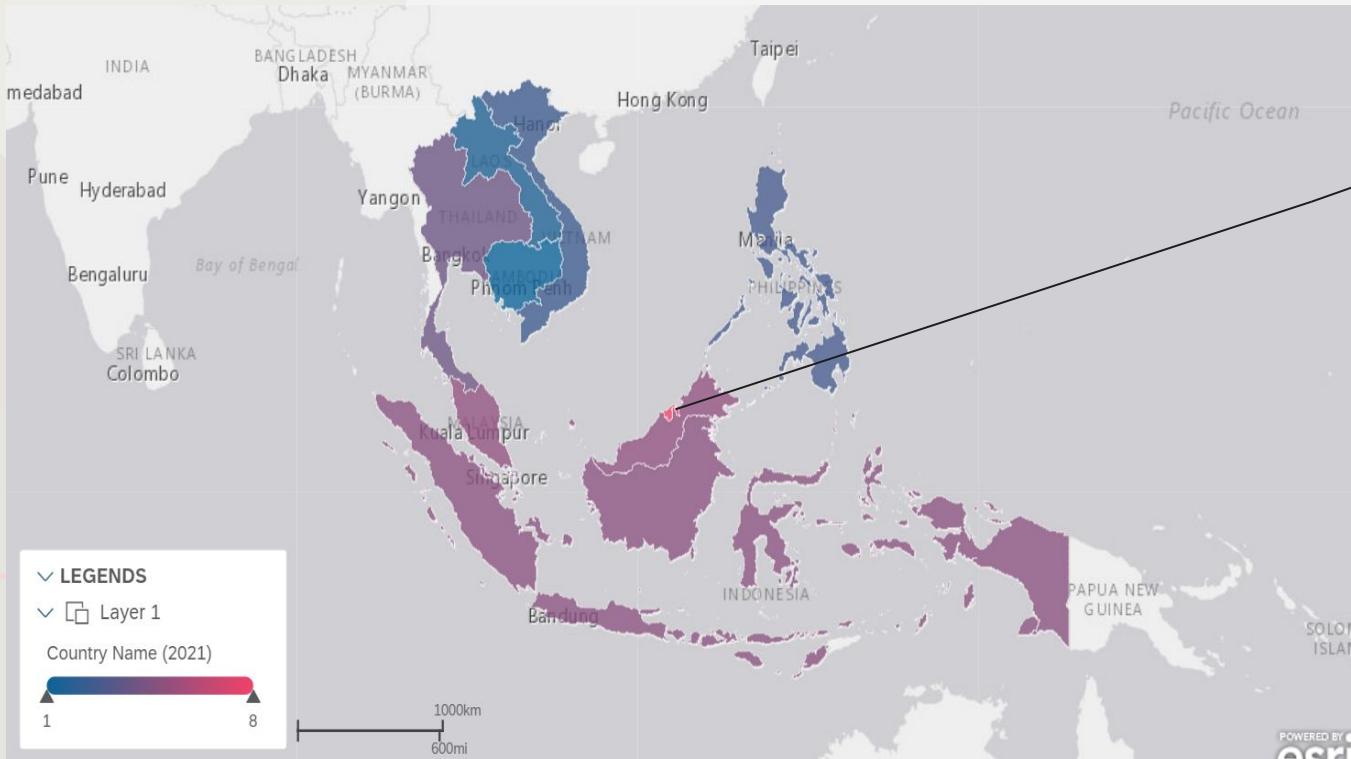
To counter youth unemployment, create opportunities for all and to create a SMART economy

- TARGET 8.2 → Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
- TARGET 8.5 → By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- TARGET 8.6 → By 2020, substantially reduce the proportion of youth not in employment, education or training

# CONTENTS

- 1. CURRENT ISSUES**
  - a. Youth employment
  - b. Gender & Age Equality
  - c. SMART Economy
- 2. RECOMMENDATIONS**
- 3. REFERENCES**

# ASEAN'S UNEMPLOYMENT AT A GLANCE



Country	Unemployment Rate
Brunei	7.64%
Malaysia	4.6%
Indonesia	4.41%
Singapore	3.62%
Thailand	3.58%
Philippines	2.4%
Vietnam	2.16%
Laos	1.25%
Cambodia	0.61%
Myanmar	Missing data



From the heatmap, we can see that Brunei hold the highest unemployment rate at 7.64%, while Cambodia holds the lowest unemployment rate at 0.61%.

Source: WorldBank

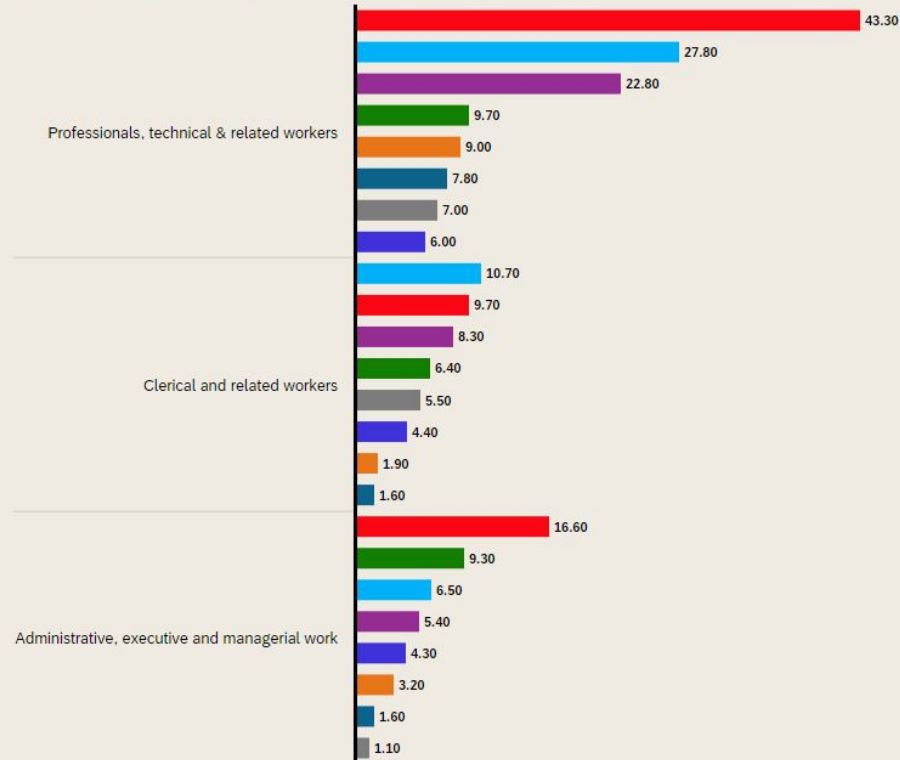
# EMPLOYMENT BY OCCUPATION

## White-collar Workers

Proportion per Country , Occupation for Actual

2 Filters

Singapore Brunei Malaysia Philippines Vietnam Cambodia Indonesia Thailand



Missing data: Laos & Myanmar

In the previous chart, we see that the unemployment rates vary greatly amongst the ASEAN countries.

However, a low unemployment rate  $\neq$  a good economy.

While Cambodia holds the lowest unemployment rate, they also hold one of the lowest % of workers in white-collar jobs.

On the other hand, Singapore consistently displays high proportion of its population in white-collar jobs, which are less likely to be displaced in the future.

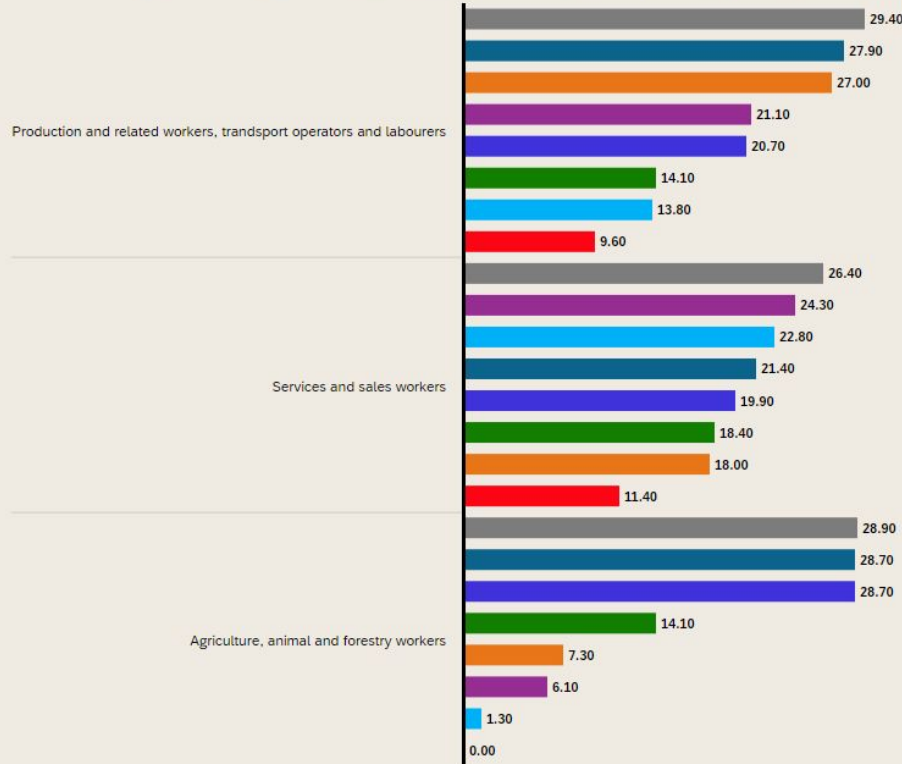
# EMPLOYMENT BY OCCUPATION

## Blue-collar Workers

Proportion per Country , Occupation for Actual

2 Filters

Indonesia Cambodia Vietnam Malaysia Thailand Philippines Brunei Singapore



Missing data: Laos & Myanmar

Here, we see that while Cambodia has the lowest unemployment rate, it also holds a high proportion of its population in blue-collar jobs.

As we will see later, many of these blue-collar jobs are at very high risks of being displaced in the future of industry 4.0, meaning that countries like Cambodia and Indonesia will reach a drastic drop in employment rates in the near future.

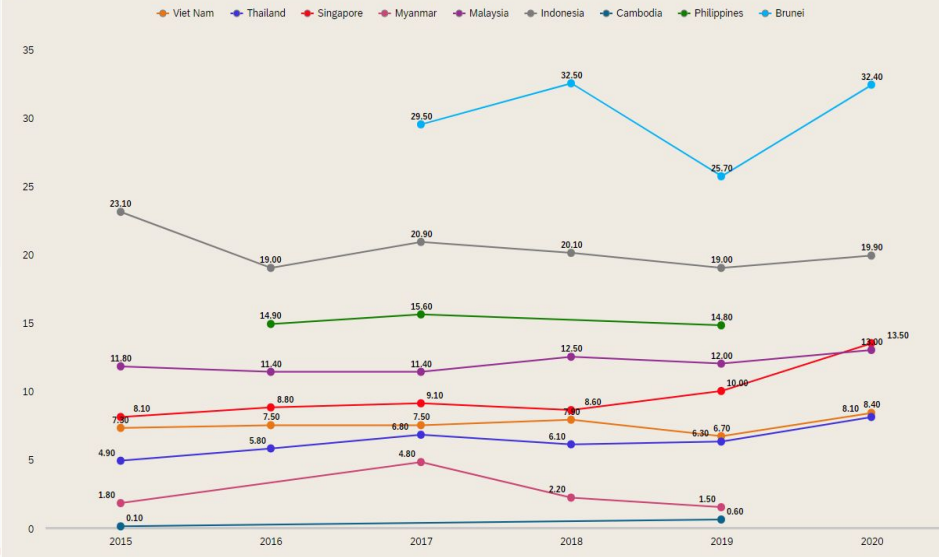
In contrast, while countries like Singapore and Brunei holds a slightly higher unemployment rate, they also have a low proportion of population in blue-collar jobs, reducing the likelihood of workers being displaced in the future.

# YOUTH UNEMPLOYMENT BY GENDER (Target 8.6)

## FEMALES

Female Youth Unemployment % by Country, Year

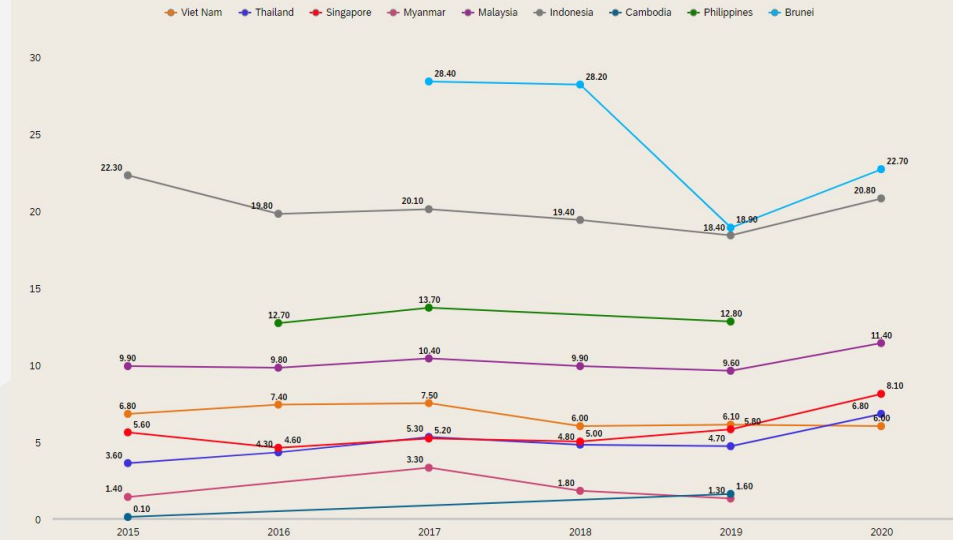
3 Filters



## MALES

Male Youth Unemployment % by Country, Year

3 Filters



From target 8.6, it aims to substantially reduce the proportion of youth not in employment, education or training by 2020. However, although youth unemployment rates have decreased in the past years, we can see from both graphs that they have actually increased in 2020, which we suspect is due to Covid, hence not meeting the target as unemployment rates are still generally quite high amongst all countries.

### Missing Data:

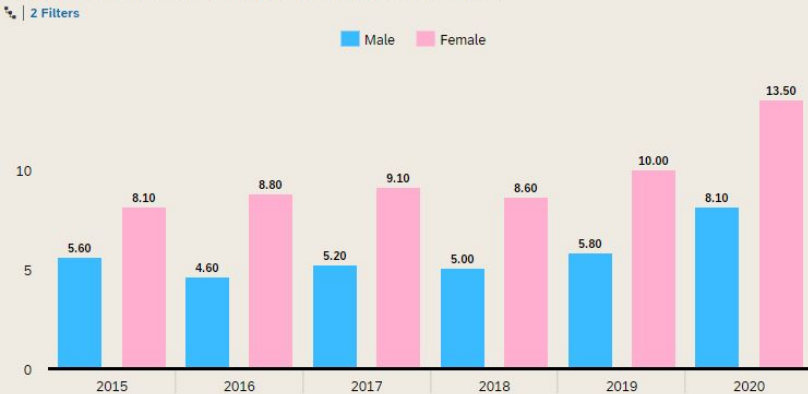
- Myanmar 2020
- Cambodia 2020
- Philippines 2020

# YOUTH UNEMPLOYMENT

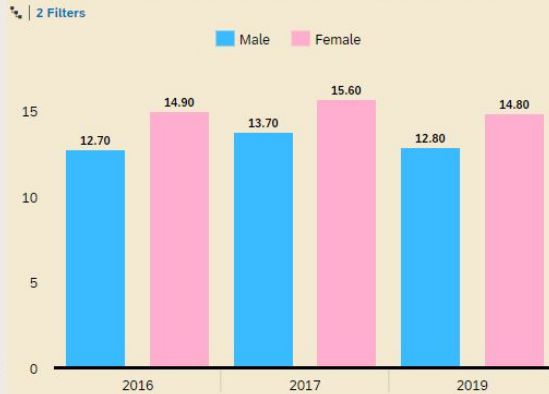
## BY GENDER (Target 8.5)

### COMPARISON

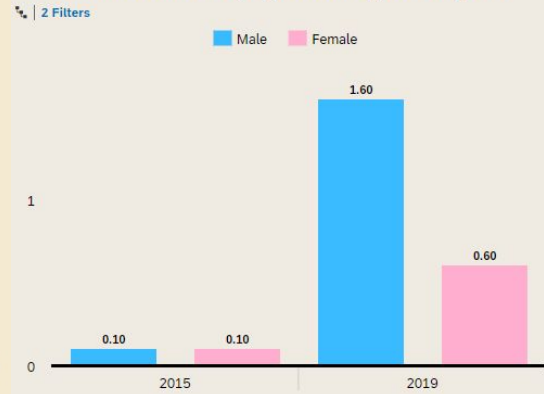
Singapore Youth Unemployment % by Gender, Year



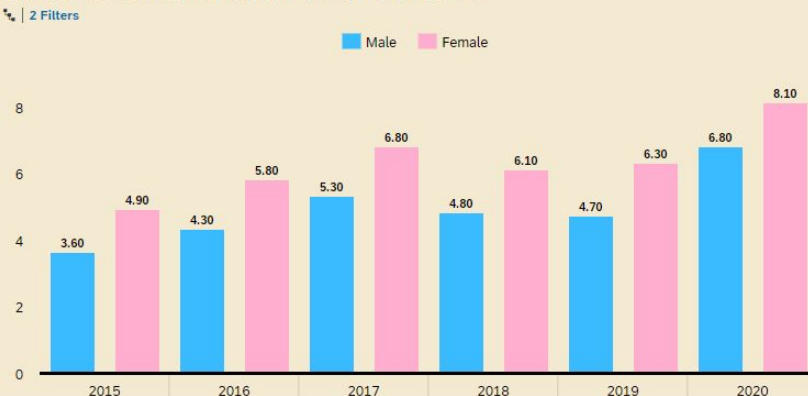
Philippines Youth Unemployment % by Gender, Year



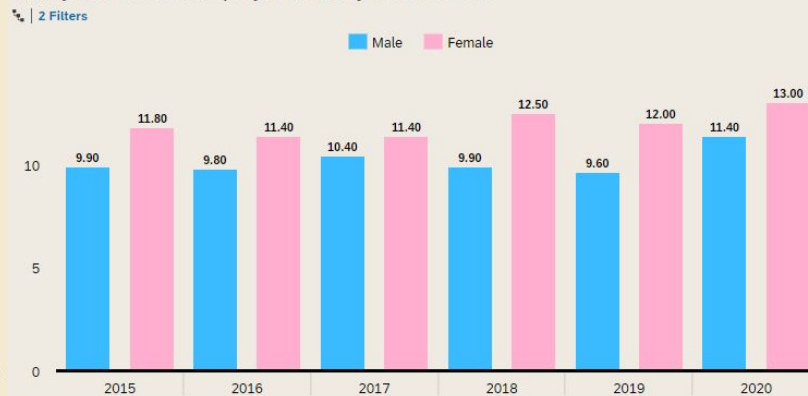
Cambodia Youth Unemployment % by Gender, Year



Thailand Youth Unemployment % by Gender, Year



Malaysia Youth Unemployment % by Gender, Year



#### Missing Data:

Philippines: 2015, 2018, 2020

Cambodia: 2016, 2017, 2018, 2020

Myanmar: 2016, 2020

Brunei: 2015, 2016

Laos: ALL

Source: ILO



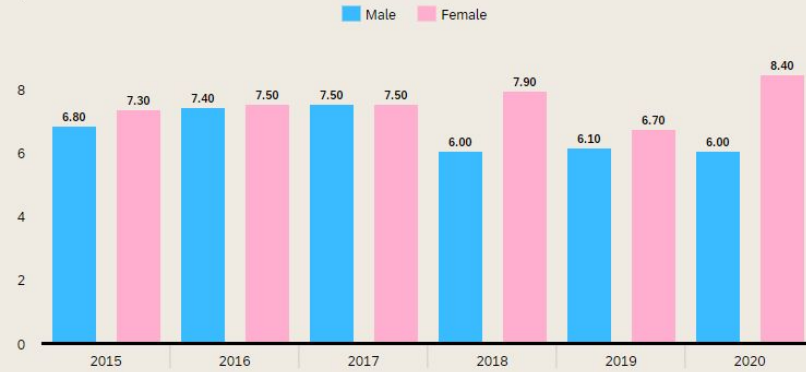
# YOUTH UNEMPLOYMENT

## BY GENDER (Target 8.5)

### COMPARISON

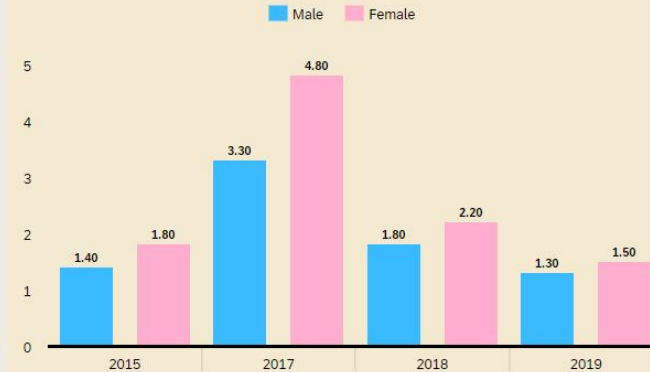
Vietnam Youth Unemployment % by Gender, Year

2 Filters



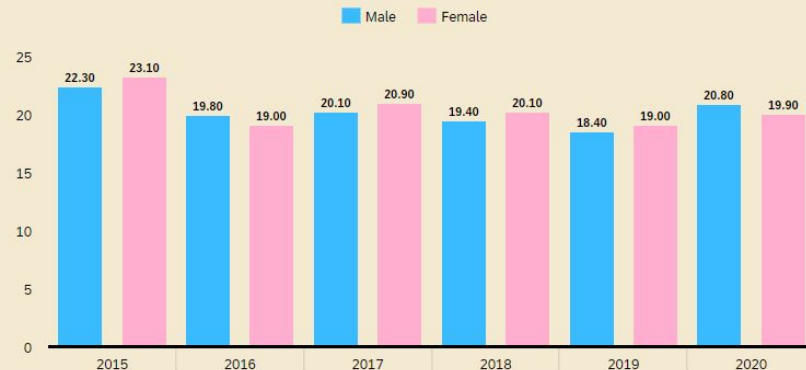
Myanmar Youth Unemployment % by Gender, Year

2 Filters



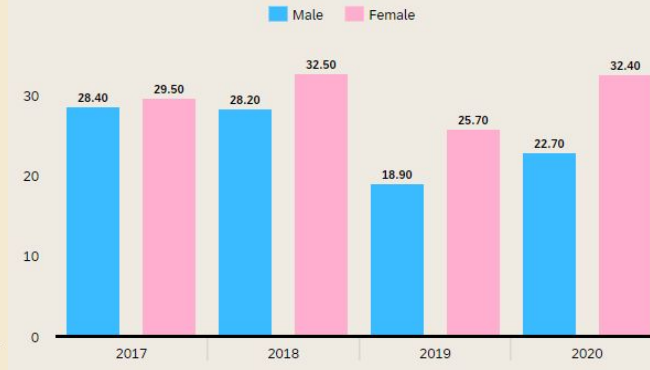
Indonesia Youth Unemployment % by Gender, Year

2 Filters



Brunei Youth Unemployment % by Gender, Year

2 Filters

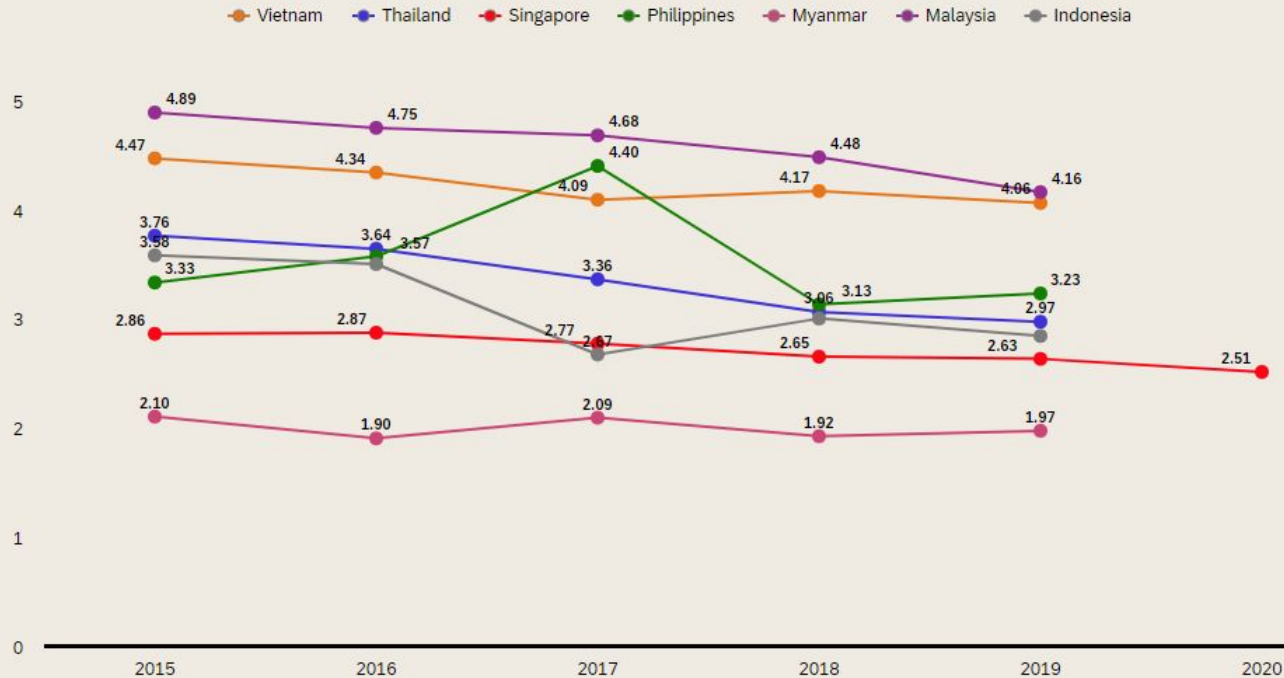


These charts show that majority of male unemployment rates are lower than female unemployment rates. From this, we can see that there is a gender bias that needs to be countered in order to meet the target 8.5 of achieving full and productive employment and decent work for all women and men, including the young by 2030.

# EDUCATION SUPPORT BY GDP (Target 8.6)

Government Expenditure % on Education by Year

2 Filters



From the current graph, we can see a common trend amongst all countries in the decreasing education GDP over the years

## Missing Data:

- Brunei 2015 - 2020
- Cambodia 2015 - 2020
- Laos 2015 - 2020
- Myanmar 2020
- Malaysia 2020
- Indonesia 2020
- Philippines 2020
- Thailand 2020
- Vietnam 2020

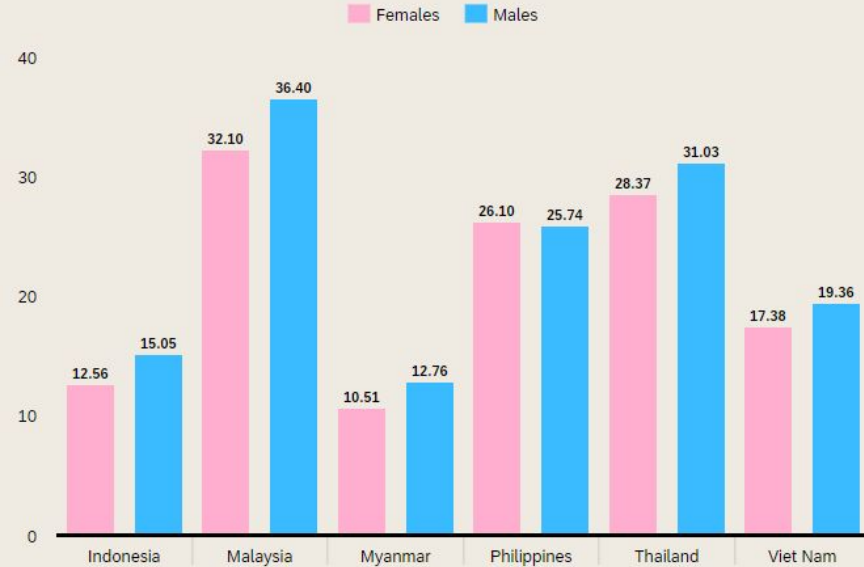
# GENDER EQUALITY

## BY SALARY & EDUCATION (Target 8.5)

Missing Data: Brunei, Cambodia, Laos, Singapore

Hourly Earnings by Country, Gender (2020)

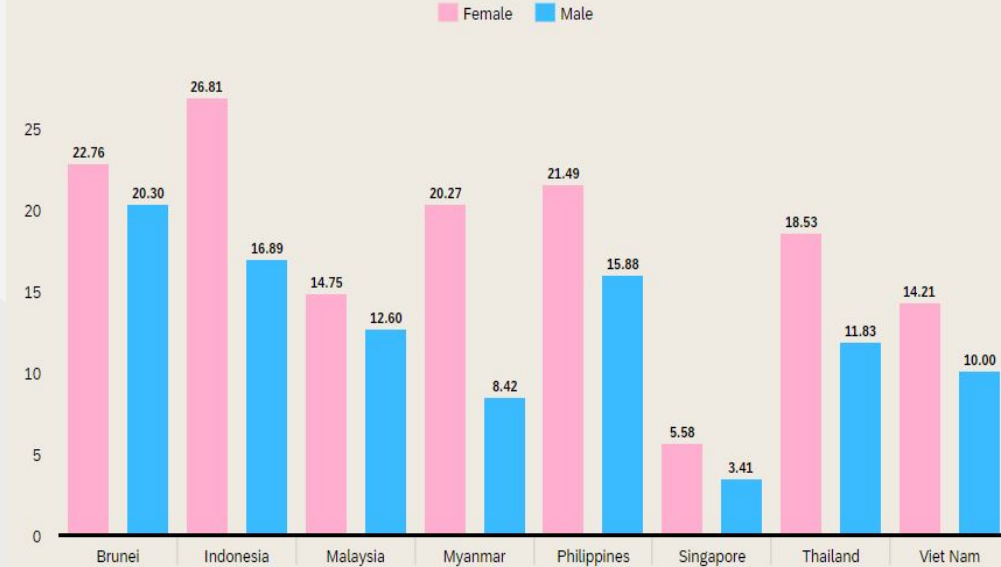
1 Filter



Missing Data: Cambodia, Laos

Percentage of Youth Not in Education by Country, Gender (2020)

1 Filter



From the above 2 graphs, we see that males generally have higher salaries and more education/training as compared to females, which surfaces the problem of gender bias yet again. In order to meet target 8.5, we believe that equal opportunities for both genders should be provided.

Source: WorldBank & ILO

# SMART ECONOMY

## TECHNOLOGY DISPLACEMENT VS INCOME GROWTH (Target 8.6)



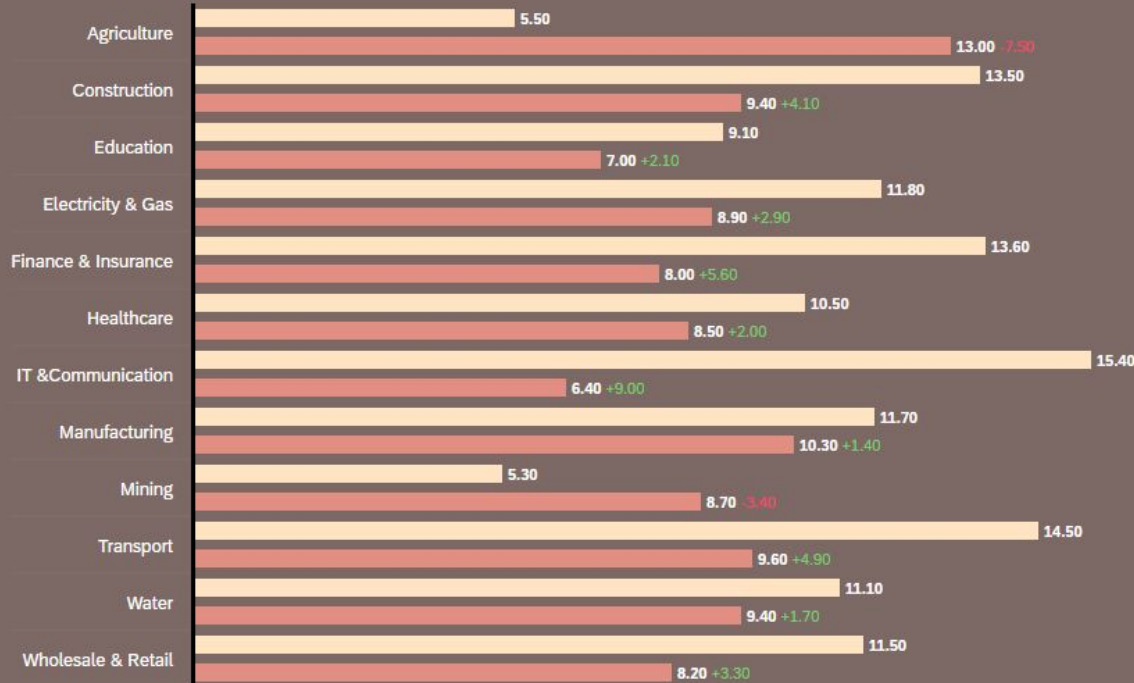
In the building of industry 4.0, we see that many jobs have been displaced. However, we can also see an increase in the number of jobs built. From here, we can determine the occupations that will face high unemployment, such as agriculture and mining, in the coming years.

However, jobs like IT & Communication show a large increase in job opportunities over the years. Hence, this shows that educational focus should also lean toward occupations that will provide jobs in the future

% Built, % Displaced per Occupation for Actual

1 Variance

% Built % Displaced



# SMART ECONOMY

## SKILLS MISMATCHED (Target 8.2)

Skills of Redundant Workers vs Skills Needed in Vacant Positions

1 Variance

Redundant Vacant



Lastly, from this graph, we see the percentages of redundant skills, which leads to unemployment and vacant job opportunities. Clearly, there are still many vacant job opportunities, but lack the right skilled workers to be fulfilled. On the other hand, there are many redundant jobs that are being replaced over the years, leading to unemployment.

Hence, we believe that while education itself is important, teaching and attaining the right skillset, useful for the future of industry 4.0 is even more important

# RECOMMENDATIONS

## 1. Government Investment in Education

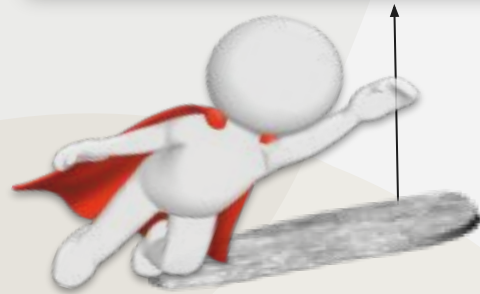
Governments should invest more in education. As seen, while unemployment rates are not decreasing, the education support has decreased over the years. Without proper education, it is hard for youths to be employed, hence, education support should increase.

## 3. Drive Students in the Right Education Pathway

Lastly, it is evident that there are many job vacancies available and that technology is overtaking the current generation, hence, we believe that more education should be provided towards the right industry, so youths entering the workforce would not have their jobs displaced

## 2. Promote Gender Equality

As seen from the gender equality, males generally have more education and higher pay as compared to females. This can cause lesser women to want to be in the workforce, hence worsening the economy due to lack of skilled workers



**ONE VISION,  
ONE IDENTITY,  
ONE COMMUNITY**

# REFERENCES

1. ASEAN Statistical 2021 Yearbook (ASYB)
2. International Labour Organisation Stat (ILOSTAT)
3. Technology and the future of ASEAN jobs by Cisco and Oxford Economics
4. World Bank Open Data