



# GEM TOOL USER'S GUIDE

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## SECTION 1

# QUICK START

GEM Tool is mainly used for Gender Inequality Index (GII) and sectoral data visualization. Users can visualize data and interact with the interactive maps and graphs.

You can see the trend by graphs and change the year of data according to your interests.

The dataset will be updated based on its availability. You can download it for free on the GEM Tool.

GEM Tool can be accessed via <https://gem-servir.adpc.net>

# MAIN FEATURES BY MENU/PAGE

## 1. HOME

The screenshot shows the homepage of the GEM platform. At the top, there is a navigation bar with links for HOME, ABOUT, GENDER INEQUALITY INDEX, SECTORAL DATA, DOWNLOAD ▾, and RESOURCES. The 'HOME' link is highlighted with a red circle. Below the navigation bar, there are logos for USAID, NASA, and adpc. A banner for 'SERVIR MEKONG' is visible. The main content area features the 'GEM' logo (Gender Equality Monitoring Platform for the Lower Mekong Region) on the left. On the right, there is a blue box containing a quote by Caroline Criado Perez: "There are substantial gender data gaps in government thinking, and the result is that governments produce male-biased policy that is harming women. These data gaps are in part a result of failing to collect data, but they are also in part a result of the male dominance of governments around the world. And while we may not think of male-dominated government as a gender data gap problem, the evidence makes it clear that female perspective matters." The quote is attributed to Caroline Criado Perez.

### TRACKING PROGRESS ON GENDER EQUALITY THROUGH DATA

Governments of the Lower Mekong countries affirm their commitment to promoting gender equality and women's empowerment through an adoption of the SDG agenda. To monitor the progress, accessing gender statistics is critical. However, in the Lower Mekong Region, gender statistics such as Gender Inequality Index (GII) are only available at the national level, primarily to serve the purpose of reporting to international community. Sex disaggregated data at sub-national levels are not always publicly accessible. This makes it difficult to track the performance of promoting gender equality within a country.

The Gender Equality Monitoring (GEM) platform offers open access to officially published data and periodically updated sex disaggregated data repository. It visualizes gender gaps at subnational level in various sectors such as education, health, employment, access to information, intra-household decisionmaking, political participation, as well as gender Inequality Index (GII). These are starting points to further explore the causes and more complex dynamics of gender inequality.

Data in the GEM Platform can be used for free by gender advocates, policymakers, researchers and development practitioners to:

- Identify gender data gaps in sectors at sub-national level
- Establish baseline data for tracking gender inequality
- Understand subnational level dynamics that contribute to gender inequality
- Increase interministerial cooperation on data collection, data sharing, gender analysis and gender-responsive planning

GEM Tool provides users gender equality data within the Mekong countries. The data are divided into 2 main groups: Gender Inequality Index (GII) and Sectoral data (Sectoral Gender Gaps).



#### Gender Inequality Index

The Gender Inequality Index (GII) is developed by UN to measure inequality between women and men in three dimensions of human development i.e. reproductive health, labor market and empowerment across countries.

The index ranges from 0 (for gender equality) to 1 (gender inequality). The GEM platform offers a unique feature: the GII at sub-national level. Thanks to this feature, the GII can be used not only for reporting to international community, but also for tracking gender gaps at sub-national level – an important supporting tool for gender-responsive planning.

Some datasets for calculating the GII at sub-national level have been replaced by equivalent data, depending on the availability of data in the countries.



#### Sectoral Gender Gaps

Gender inequality is more than a fixed number. It is multi-dimensional and subtle, reflecting diverse forms of inequality experienced by women and men in different spaces.

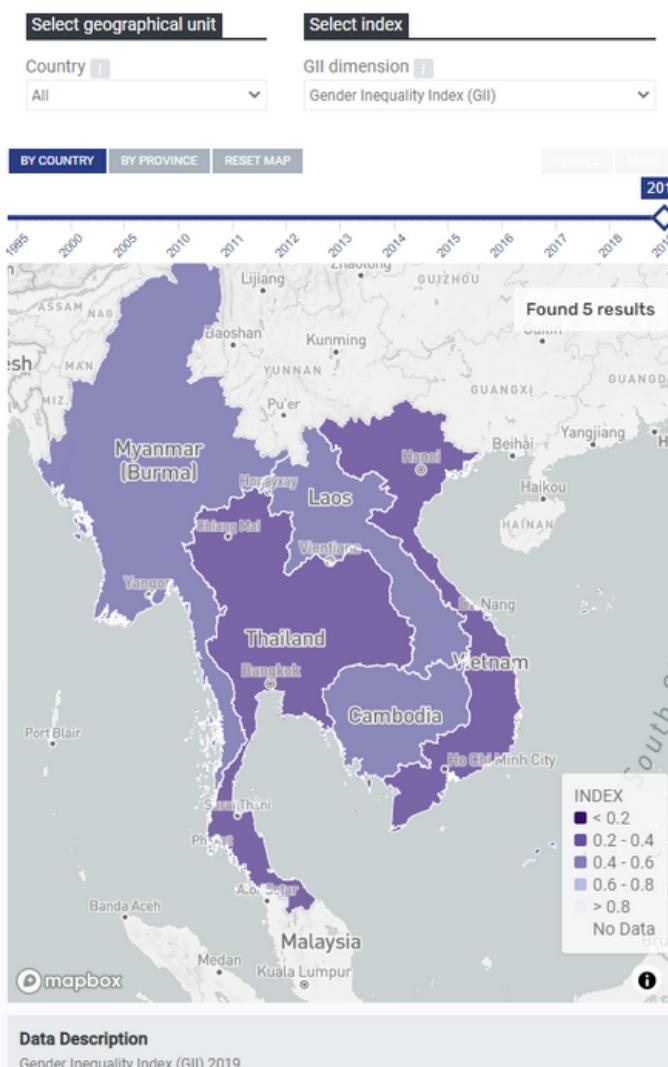
This 'Sectoral Gender Gaps' show the disparity between women and men in various aspects of human wellbeing e.g. access to school, educational achievement, access to general and reproductive healthcare, HIV treatments, participation in labor market and employment status, intra-household decision making and political participation... through sex-disaggregated data. In some countries, it shows the difference in their perceptions on gender-based violence. It also offers a glimpse of intersectional inequality when factor in other social status such as migrant, rural and urban.

This enables the identification of sector, sub-sector and location where inequalities exist, which is crucial for initiating further actions to address the inequalities.

## 2. GENDER INEQUALITY INDEX

HOME    ABOUT    **GENDER INEQUALITY INDEX**    SECTORAL DATA    DOWNLOAD ▾    RESOURCES

- Interactive map for showing GII data in Mekong countries
- Interactive graph for showing GII data in Mekong countries
- Showing dimension indices of countries/provinces
- Changing visualization by country or province level
- Visualize historical data by selecting a year



To view the graphs for one or multiple locations, you need to define administrative unit to be shown in the map by clicking on button 'BY COUNTRY' or 'BY PROVINCE' located above the map. Then you can select the location(s) by clicking on the map.



### About Data:

#### Disclaimer

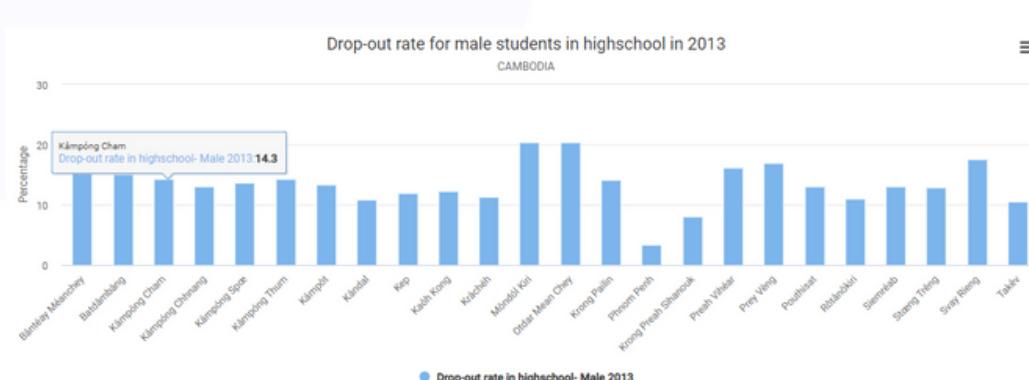
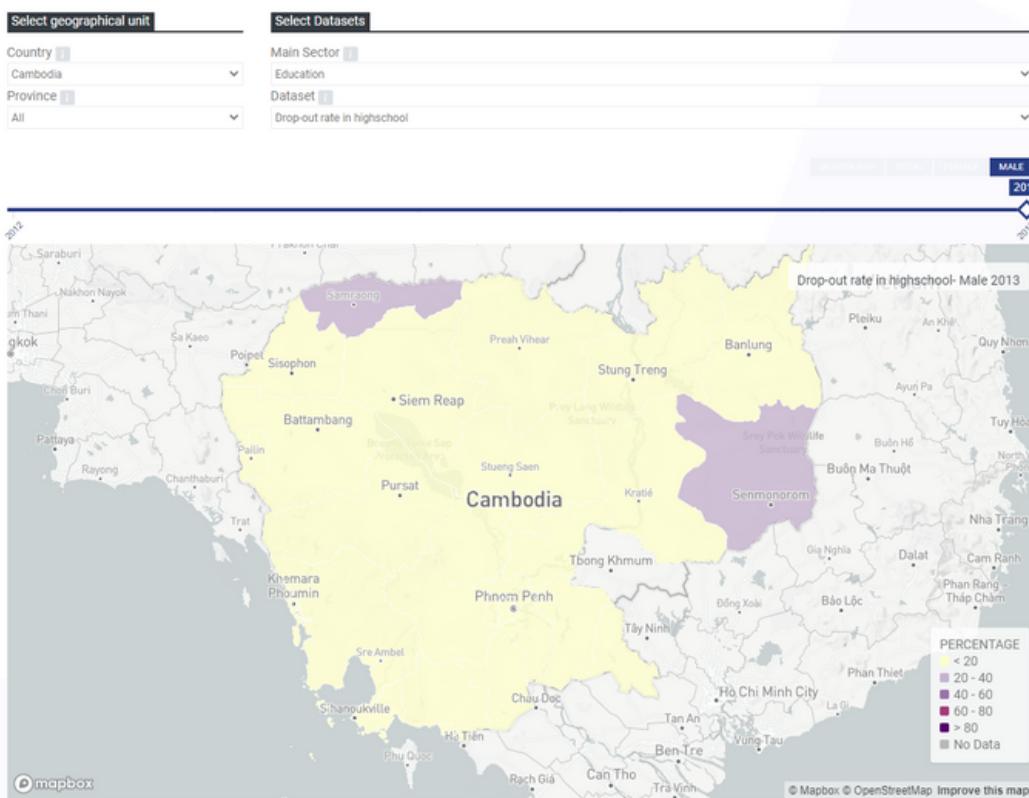
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### 3. SECTORAL DATA

HOME    ABOUT    GENDER INEQUALITY INDEX    SECTORAL DATA    DOWNLOAD ▾    RESOURCES

- Interactive map for showing Sectoral data in Mekong countries
- Interactive graph for showing Sectoral data in Mekong countries
- Visualization by province level
- Visualize historical data by selecting a year
- Showing data by Gender gaps/Total/Female/Male

This 'Sectoral Gender Gaps' show the disparity between women and men in various aspects of human wellbeing e.g. access to school, educational achievement, access to general and reproductive healthcare, HIV treatments, participation in labor market and employment status, intra-household decision making and political participation... through sex-disaggregated data.



#### About Data:

##### Disclaimer

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## 4. DOWNLOAD

The screenshot shows a navigation bar with links for HOME, ABOUT, GENDER INEQUALITY INDEX, SECTORAL DATA, DOWNLOAD (circled in red), and RESOURCES. Below the DOWNLOAD link is a dropdown menu with two options: GENDER INEQUALITY INDEX and SECTORAL DISAGGREGATED DATA.

Gender inequality index (GII) data and Sectoral disaggregated data are available for download. After selecting the data, you can check the preview before downloading the data file.

- Select time period
- Select interested areas
- Select file formats of the data

The screenshot shows a search interface for administrative boundaries and gender inequality index dimensions. It includes filters for Country (All), Province (All), GII Dimensions (All), Gender Inequality Index, Indicators (None), and a date range from 2010 to 2021. Below the filters is a table with columns: Area Code, Country, Province, GII, and Year. The table lists 16 provinces of Cambodia with their GII values and years.

Area Code	Country	Province	GII	Year
1	Cambodia	Bântéay Méanchey	0.71	2015
1	Cambodia	Bântéay Méanchey	0.69	2010
4	Cambodia	Kâmpóng Cham	0.65	2010
4	Cambodia	Kâmpóng Cham	0.68	2015
5	Cambodia	Kâmpóng Chhnang	0.6	2010
5	Cambodia	Kâmpóng Chhnang	0.62	2015
6	Cambodia	Kâmpóng Spœ	0.61	2015
6	Cambodia	Kâmpóng Spœ	0.6	2010
7	Cambodia	Kâmpóng Thum	0.61	2010
7	Cambodia	Kâmpóng Thum	0.56	2015
8	Cambodia	Kândal	0.62	2010
8	Cambodia	Kândal	0.66	2015
11	Cambodia	Kráchén	0.62	2010
11	Cambodia	Kráchén	0.7	2015
15	Cambodia	Otdar Mean Chey	0.65	2010
15	Cambodia	Otdar Mean Chey	0.67	2015
16	Cambodia	Phnom Penh	0.53	2010

## 5. RESOURCES

HOME    ABOUT    GENDER INEQUALITY INDEX    SECTORAL DATA    DOWNLOAD ▾    **RESOURCES**

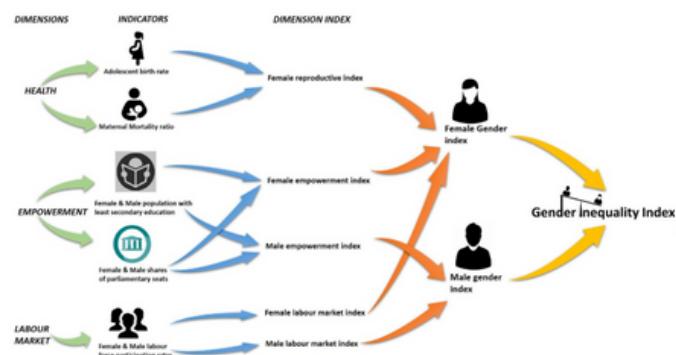
- Short descriptions of current methodology in the GEM Tool
- User Guide for using GEM Tool
- Data sources and information related to the dataset provided

### TECHNICAL NOTE

This GEM platform offers two key functions:

- It visualizes gender inequality at sub-national level, including gender inequality index (GII), and gender gaps in various sectors such as education, health, employment, household decision-making etc. using periodically updated and official gender dis-aggregated data.
- It offers gender data repository for public use.

### Framework: How the datasets are constructed?



The GII was introduced by UNDP in 2010 to measure inequalities between men and women in three dimensions: reproductive health, empowerment and the labor market. The GII intends to demonstrate the loss in human development due to gender gaps. The GII ranges from 0 (gender equality) to 1 (gender inequality in all measured dimensions) (Human Development Index, 2014). Click here for more information about UNDP's GII methodology.

Read our full Technical Note to learn more on the methodology used.

### USER GUIDE

Gender Equality Monitoring tool is developed to address two key issues: gender data gap at sub-national level, and accessibility to gender statistics which is critical to examine and track changes in gender inequality.

Read our tool guidelines to discover more.

## 6. ABOUT

- Showing list of organizations that have supported the development of GEM Tool
- Developer Team
- Send comments and questions box

### OUR TEAM AND CONTRIBUTORS

 Ha Nguyen Gender Expert, team leader, <b>SEI</b>	 Dhirey Bhapuria GIS expert, <b>SEI</b>	 Chinaporn Meechalya Hydrologist/ Water and Disaster Theme Lead, <b>ADPC</b>	The idea of creating a data platform to track gender gaps was born during a conversation between SERVIR-Mekong, led by Ha Nguyen of Stockholm Environment Institute (SEI), and Vietnam Women's Union (VWU) back in 2017, while we were exploring ways to build a community of practice on gender and geospatial technology. As ministry-equivalent agency, the VWU needs to access gender data to monitor progress towards achieving gender equality at local levels. Having data platform like the GEM would also enable them 'to promote competition between provinces' and 'to advise on gender-responsive policies', reflected Minh Huang, the Head of Information - Education - Communication Department of the VWU.			
 Kunnaree Kritiyutanont Web Developer	 Megan Danielson Consultant	 Radhika Bhandari Data Collector, <b>SEI</b>	The GEM platform is developed by a team of gender and GIS specialists in SEI: Ha Nguyen as the lead in conceptualizing the platform and supervising its development; Dhirey Bhapuria as the key expert in data management and calculation of sub-national GII; Camille Pross and Jenny Han who supported in data collection; and Karthikeyan Mathewaran who supported the platform development in various capacity, including creating a web-story for the GEM platform and initiating the design of its logo.			
 Quang Le Data Collector, <b>SEI</b>	 Karthikeyan Mathewaran GIS and Water Expert, <b>SEI</b>	 Jenny Han Gender Specialist, <b>SEI</b>	The platform would not be completed without substantial contribution and hard work of many interns namely Megan Danielson who pioneered the adaptation of GII calculation to sub-national level and set the first brick for the data repository; Radhika Bhandari and Quang Le who ventured into labyrinth of statistical materials and sources to collected and processed gender disaggregated data for the whole Mekong region.			
 Camille Pross Gender Specialist, <b>SEI</b>	 Dr. Peeranan Towashirapom Chief of Party, <b>ADPC</b>	For those who have known the GEM platform in its infancy stage, the platform has gone through a total revamp. It new design is created by Kunnaree Kritiyutanont, with brilliant advices and zealous support from Peeranan Towashirapom and Chinaporn Meechalya (Pin) from the SERVIR-Mekong team.				
			Back to where it comes from, we are grateful for the encouragement and support that the Vietnam Women's Union and Cambodia's Ministry of Women Affairs have given to the team through various consultations during the making of the GEM platform.			

### SPECIAL THANKS

The development of the Gender Equality Monitoring (GEM) tool is supported by USAID's Women's Economic Empowerment Initiative.



"The platform will be periodically updated and can be customized to the user's needs. Users can contribute to this initiative in suggesting any available set of data that they wish to incorporate into the platform."

#### Send comments/questions

Please help us improving the tool by sharing your comments or send us your questions

 thannaroth@gmail.com (not shared) [Switch account](#)

\* Required

Email \*

Your answer

comments/questions \*

Your answer

**Submit**

[Clear form](#)

Never submit passwords through Google Forms.

## 7. LANGUAGES

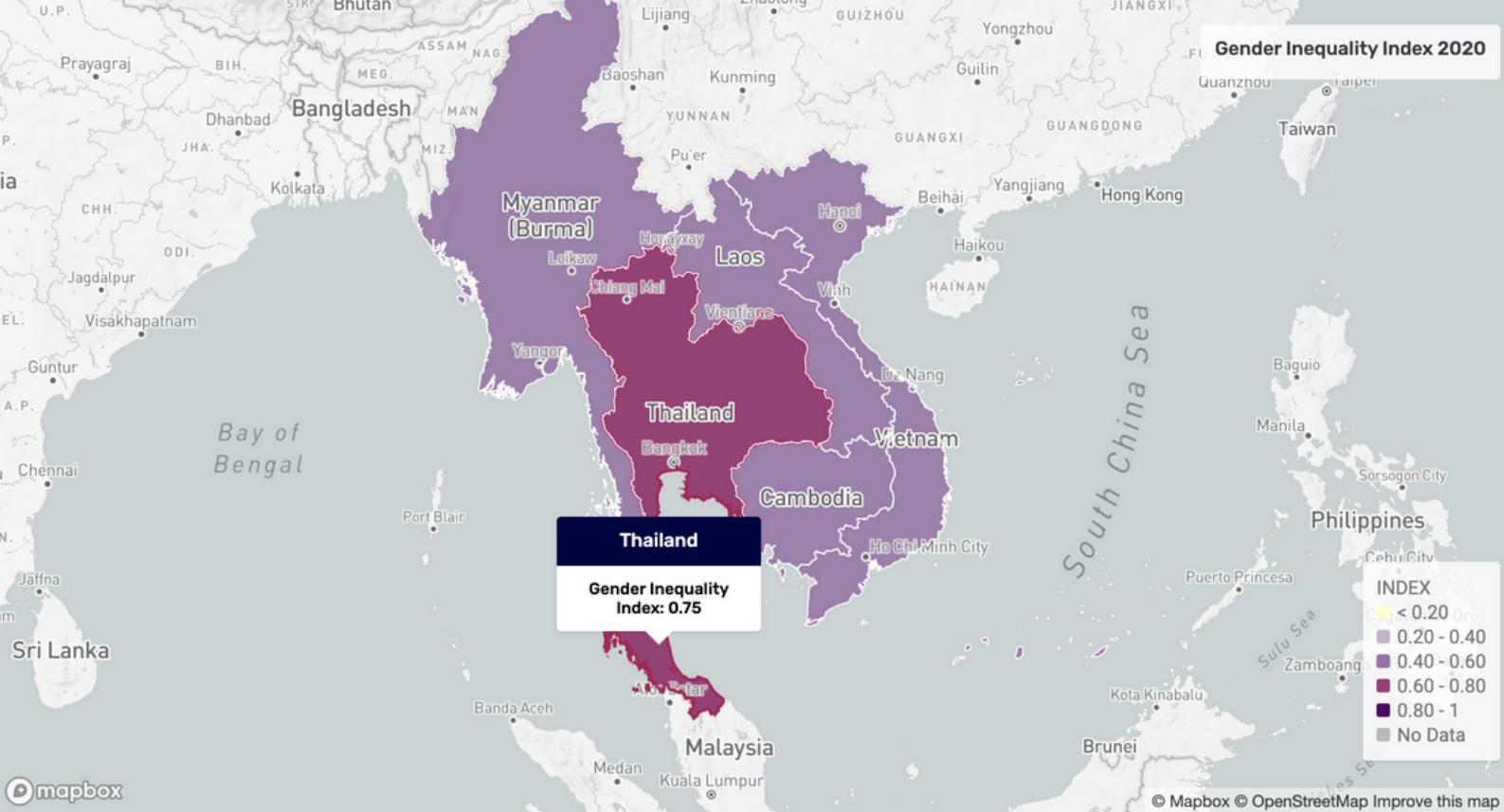
- Language used in GEM tool interface can be changed to your preference.



HOME    ABOUT    GENDER INEQUALITY INDEX    SECTORAL DATA    DOWNLOAD ▾    RESOURCES



หน้าหลัก    เกี่ยวกับ    ตัวชี้วัดความไม่เสมอภาคชายหญิง    ข้อมูลช่องว่างระหว่างเพศ    ดาวน์โหลดข้อมูล ▾    RESOURCES



## SECTION 2

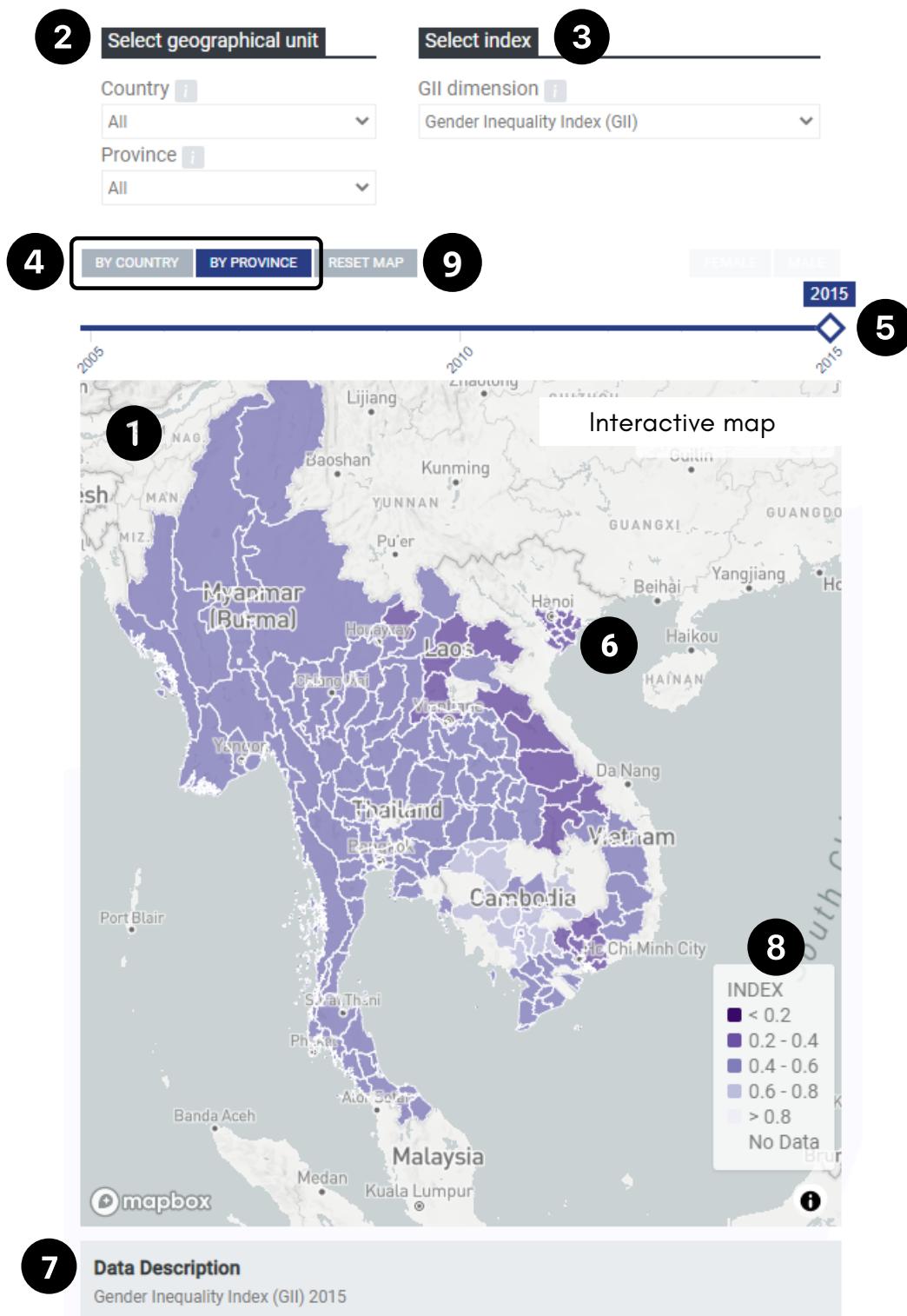
# HOW TO USE

The GEM Tool's interface uses interactive maps and graphs for visualization GII and Sectoral data.

Users can interact with maps and select data to be visualized.  
Charts will be illustrated according to selected data.

See more details in the next pages to learn how to use functions in GEM Tool.

# USING INTERACTIVE MAP AND CHARTS ON GENDER INEQUALITY INDEX PAGE

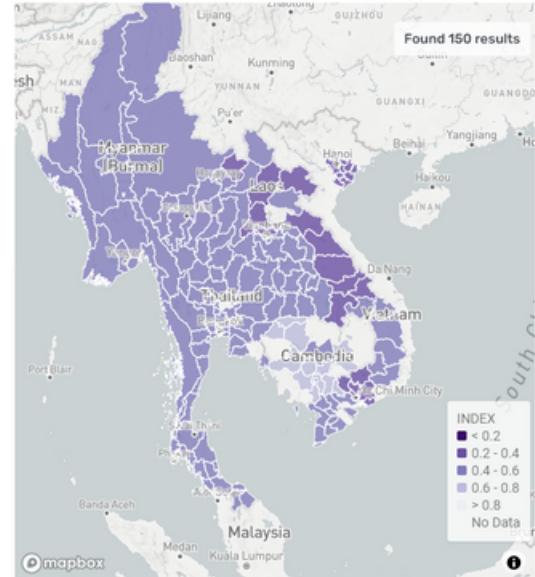


- 1.Default of the choropleth map shows the statistical data from the 5 countries in Mekong at country level.
- 2.Using geographical unit dropdown lists, you can choose to show the data and the map by selecting the countries and the provinces of interest or selecting all to show all the available data.

3. GII and Gender Dimensions data can be selected from the dropdown list.
4. There are two levels of data to be shown: national level and sub-national level which you can select by clicking on either "BY COUNTRY" or "BY PROVINCE".



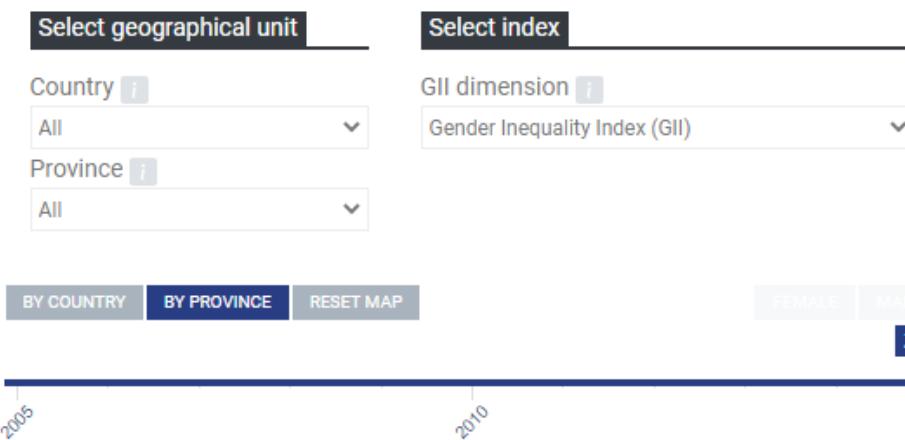
**Select BY COUNTRY**

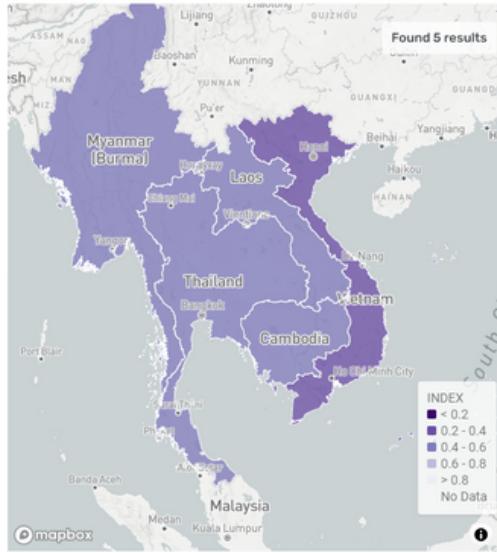


**Select BY PROVINCE**

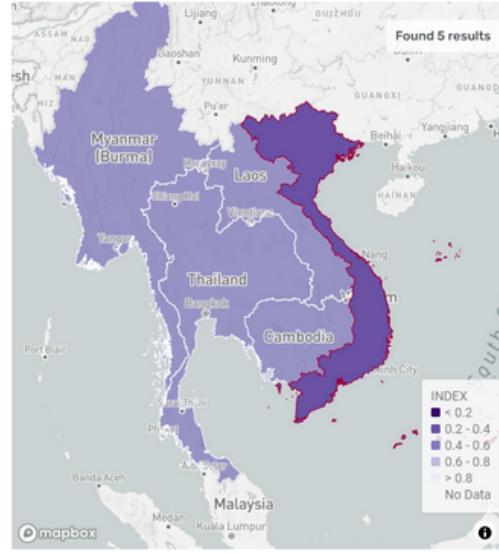
5. The year of data can be selected using the slide bar. You can drag the slide bar to the year of interest, then the data on the map will be updated accordingly. The years with data within selected boundaries, dimensions and data level will appear in bold text if they are available in the database .

In this case, the data of GII for all countries and provinces is available in the years of 2005, 2010 and 2015 and the data from 2015 is selected.





**Default Map**



**Vietnam is selected**

6. For GEM Tool to generate visualization of GII data, you can directly select one or multiple sub-boundaries (countries or provinces) within selected Administrative Boundary by clicking the countries/provinces on the map.

To unselect, simply click on the selected areas. Colored outlines indicate boundaries of the selected areas, white outlines indicate those of unselected areas/default.

7. The Gender Indicator and year written in this box indicate the currently selected data set.

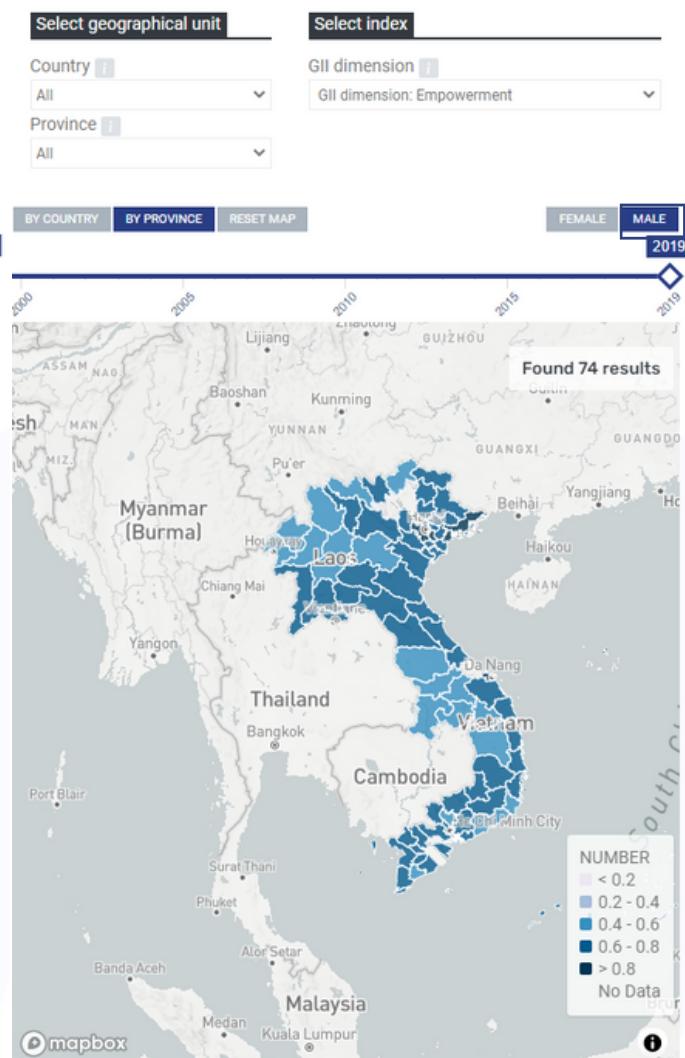
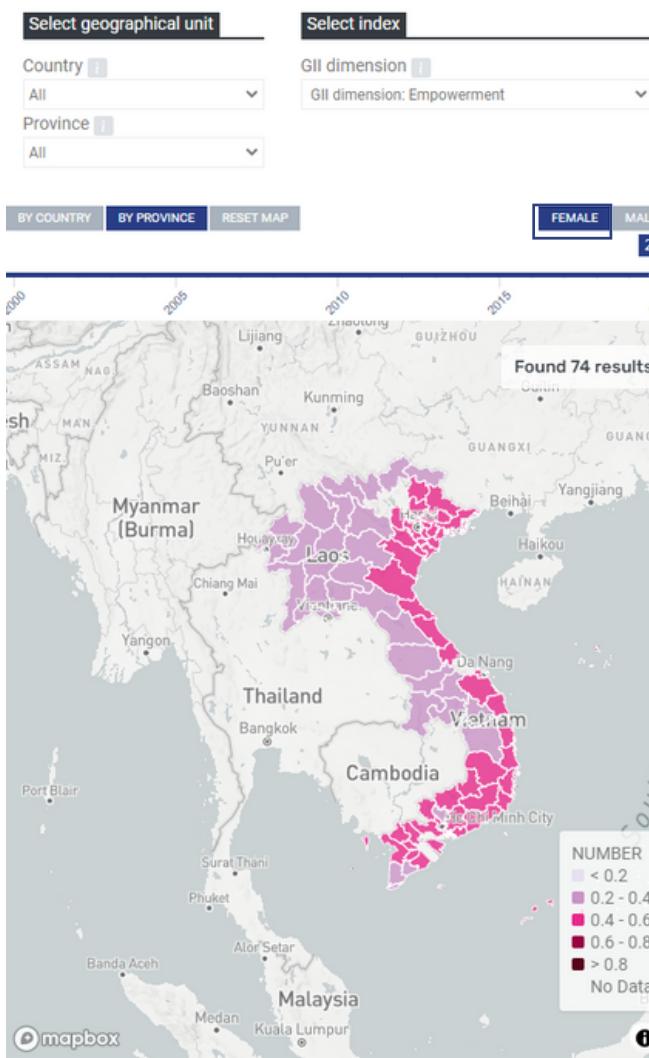
8. Legends of the choropleth map is automatically adjusted to the unit of the selected indicator and maximum value of each data.

The legend of index ranges from 0 to 1, that of percentage data ranges from 0 to 100 and that of number, i.e. population, ranges from 0 to its maximum number.

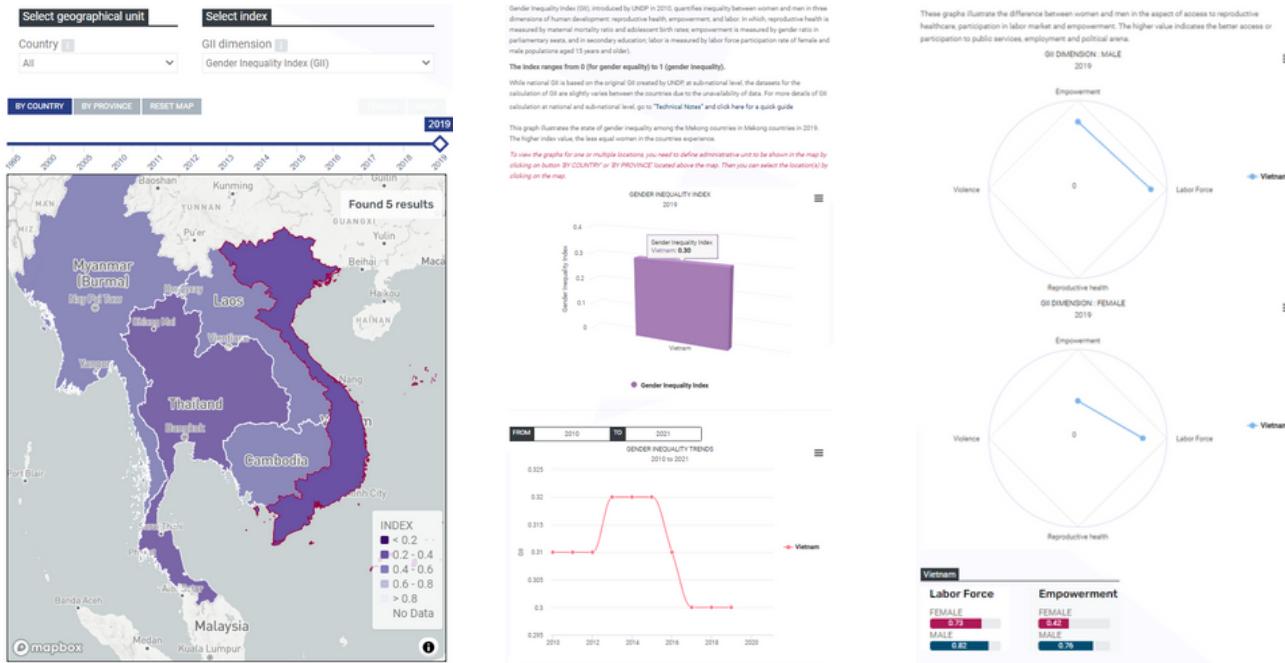
9. To ensure that the current data shown in the map is complete, the map should be reset using the "RESET MAP" button. If you select the sub-boundaries (provinces/countries) within the Administrative Boundary appeared in the reactive map before changing the Gender Indicator, it will only show the data of the newly selected Gender Indicator from only the selected sub-boundaries.

## Some GII dimension are divided into subsections:

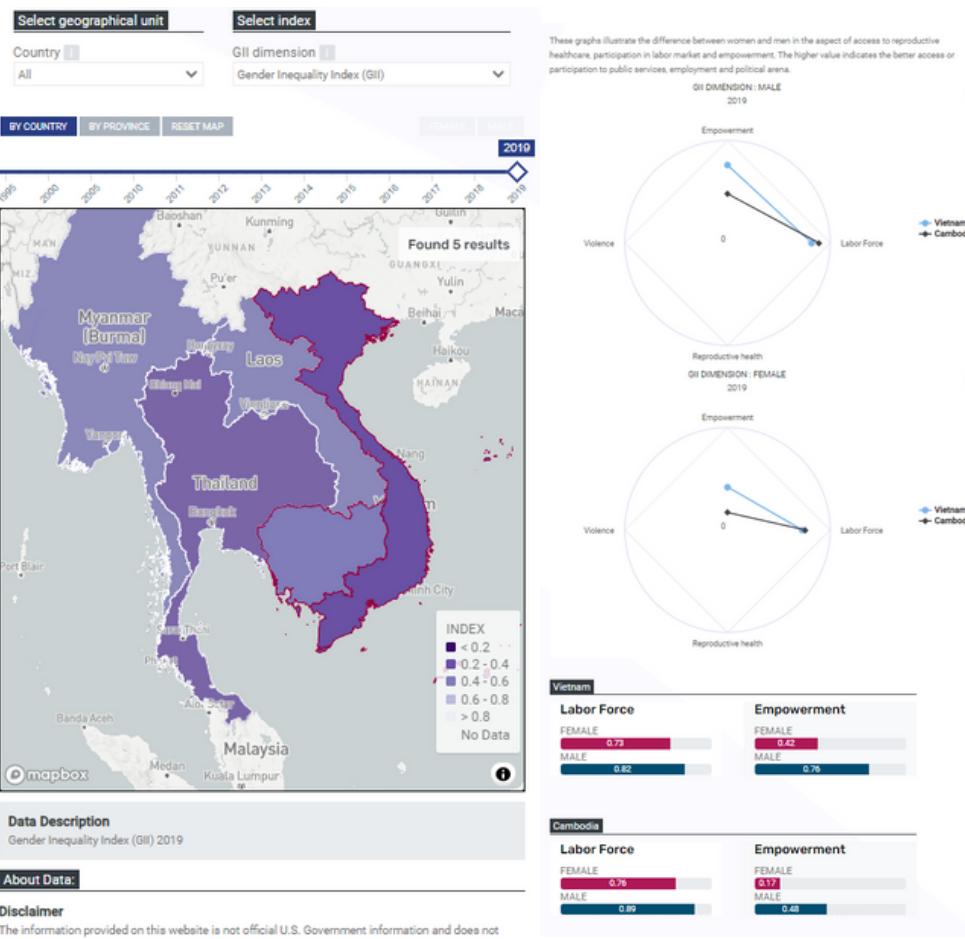
FEMALE MALE



# GII INFOGRAPHIC AND CHART GENERATOR



Selecting one or multiple provinces/countries on the map activates the infographic on the right side of the page which shows information of the selected Gender Indicators. The infographic will disappear if you unselect the areas on the map.



When multiple areas are selected, the infographic displays information of all selected provinces or countries

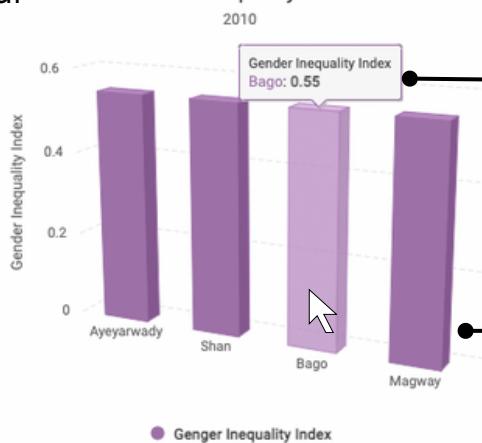
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# GII CHART VISUALIZATION

Data and year

Gender Inequality Index



Chart's menu

Pop up details showing GII value of the area that the cursor is pointing. Switch to other areas by hovering your cursor.

Chart's area:

GII data is illustrated in a bar chart. Each bar represent a selected area.

Gender Inequality Index

2010



- View in full screen
- Print chart
- Download PNG image
- Download JPEG image
- Download PDF document
- Download SVG vector image
- Download CSV
- Download XLS
- View data table

After clicking at the chart's menu, you will see the list of options. You can view it in full screen, print, download in different forms, and view the data table.

FROM 2010 TO 2021

GENDER INEQUALITY TRENDS  
2010 to 2021



A line chart for showing trends of selected areas will be generated automatically. You can select time period for comparison. Lines will not be generated if represented years are discrete.

## DIMENSION INDEX CHART VISUALIZATION

For dimension index data, there will be spider web/bar chart for comparison data between selected areas of a particular year. The data will be separated by gender (Male and Female).

Charts illustrate the difference between women and men in the aspect of access to reproductive healthcare, participation in labor market and empowerment. (Aspect might be adjusted base on availability of data)

Data and year

GII DIMENSION : MALE  
2015



Chart's menu

Legends

Chart's area:

The higher value indicates the better access or participation to public services, employment and political arena.

Number of lines in the chart can be changed base on your selected areas on the map.

GII DIMENSION : FEMALE  
2015



# INFOGRAPHIC COMPONENTS

Selected Area (country/province)

Dimension Name

Dimension Index Values

Vietnam

## Labor Force

FEMALE

0.73

MALE

0.82

## Empowerment

FEMALE

0.42

MALE

0.76

Myanmar

## Labor Force

FEMALE

0.47

MALE

0.77

## Empowerment

FEMALE

0.18

MALE

0.46

Cambodia

## Labor Force

FEMALE

0.76

MALE

0.89

## Empowerment

FEMALE

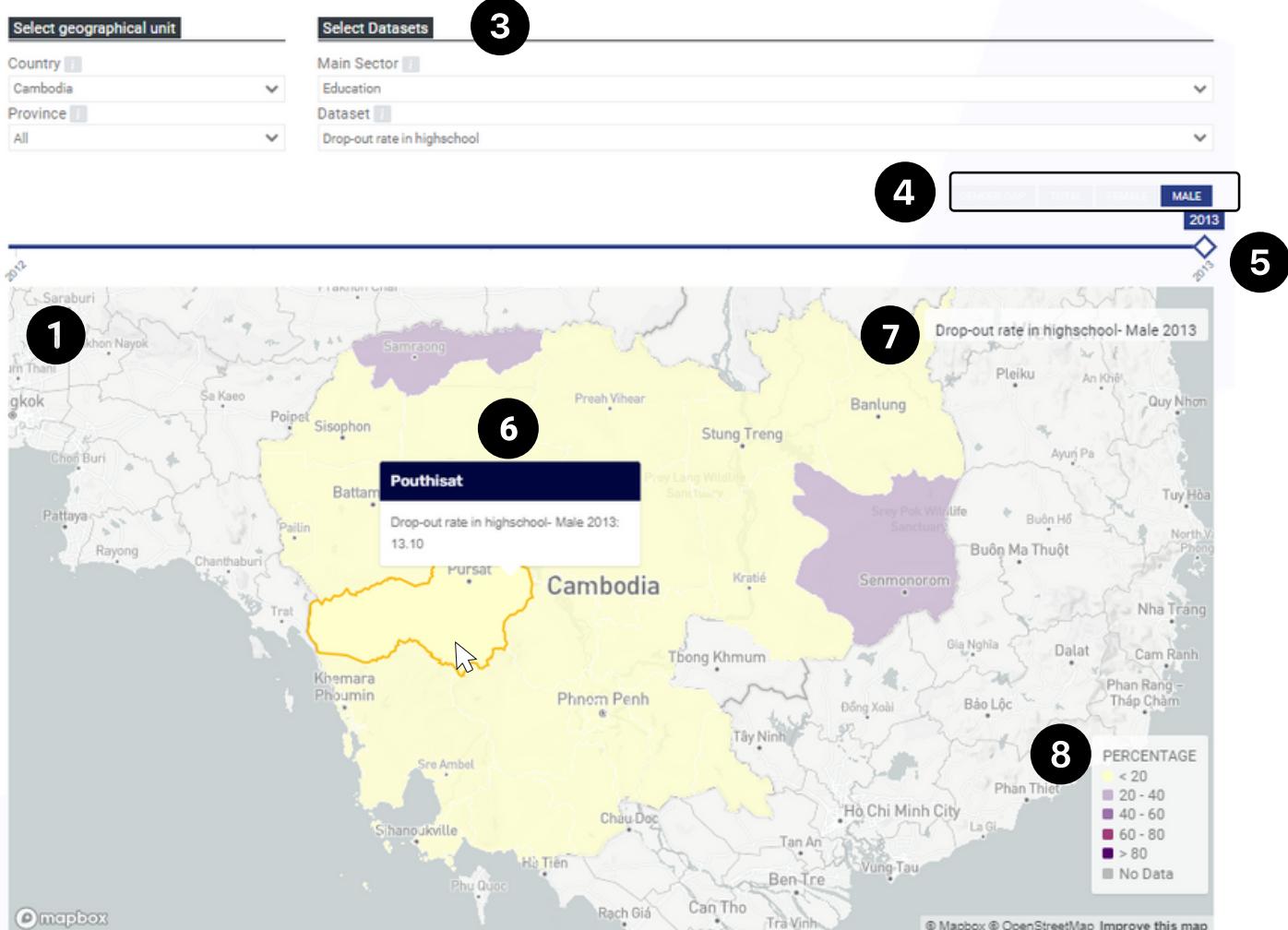
0.17

MALE

0.48

# USING INTERACTIVE MAP AND CHARTS ON SECTORAL DATA PAGE

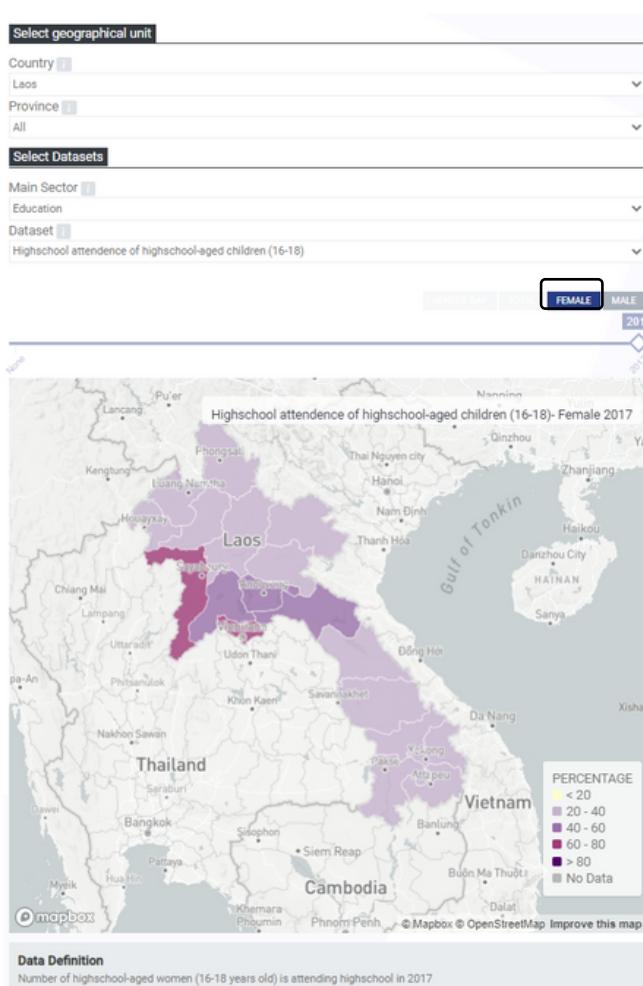
This 'Sectoral Gender Gaps' show the disparity between women and men in various aspects of human wellbeing e.g. access to school, educational achievement, access to general and reproductive healthcare, HIV treatments, participation in labor market and employment status, intra-household decision making and political participation... through sex-disaggregated data.



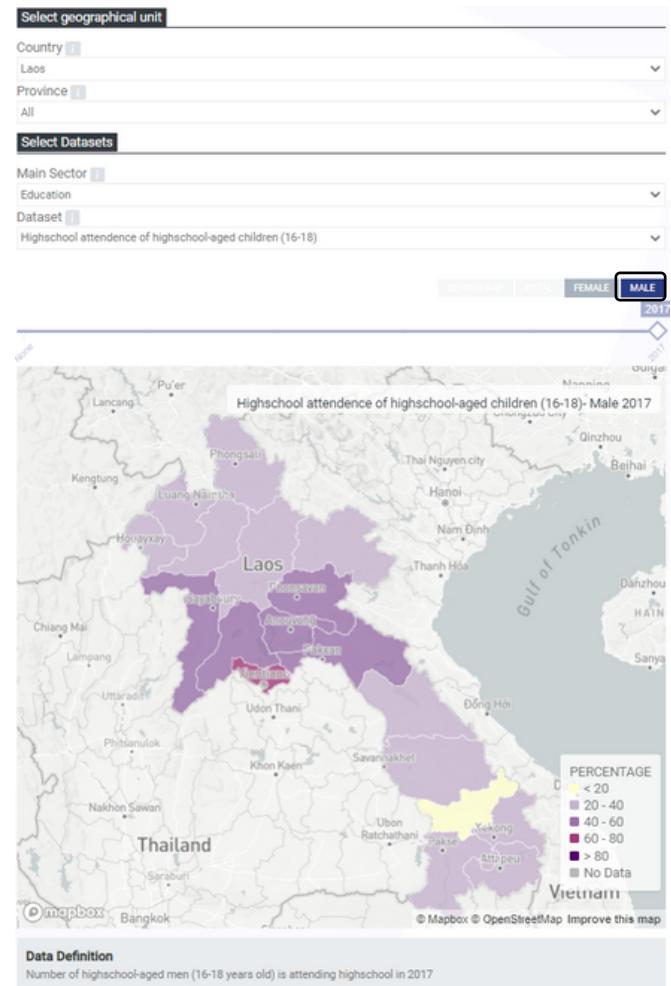
1. Default of the choropleth map shows the sectoral data statistics of the countries in Mekong.
2. Using geographical unit dropdown lists, you can choose to show the data of one country at a time. You can also choose to show one province in the selected country or choose all to show all available provinces.

The figure displays two dropdown menus. The left menu, titled 'Country', has 'Laos' selected from a list that also includes Cambodia, Myanmar, Thailand, and Vietnam. The right menu, titled 'Province', has 'All' selected from a list that includes Attapu, Bokeo, Bolikhamsai, and Champasak.

3. Sectoral dataset to be shown on this page are categorized into Main Sectors which can be selected from the dropdown list. Each Main Sector is divided into its multiple subsections. Each subsection can have multiple datasets (data level 1) which can be selected using the dropdown list.
4. Each dataset from 3. contains statistical data of Gender gaps, Total, Female and Male or of only one gender depending on the type of data and the availability of the selected dataset.



**Female Dataset**



**Male Dataset**

- i** For Sectoral data, you can not select areas on the interactive map same as GII data. You can only hover your mouse over interested areas for showing popup box and control the map.

- i** Please note that you may see "Total" and "Gender Gap" on the tab bar for some data, depending on availability. "Total" represents a total number or percentage of both male and female. "Gender Gap" represents the difference of the selected indicator between the two sets of data: male and female. Due to the limited data availability, not all indicators can be calculated and shown in term of gender gap for whole dataset. The tab with blue color indicate current represented data on the map.

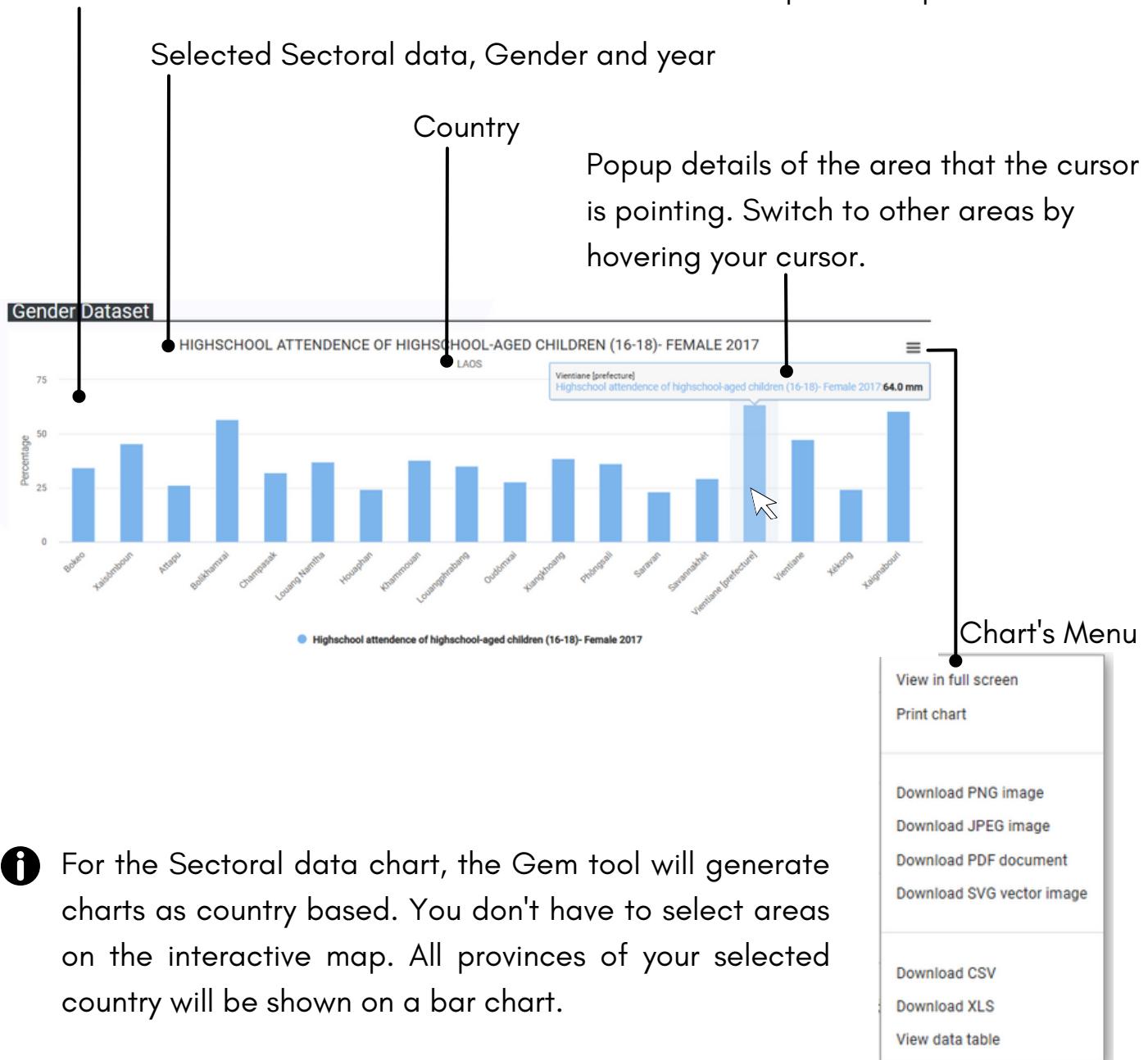


5. The year of data can be selected using the slide bar. You can drag the slide bar to the year of interest, then the data on the map will be updated accordingly. The years with data within selected boundaries, dimensions and data level will appear in bold text if they are available in the database.
6. The popup box shows the data of the province that your cursor is pointing.
7. The heading includes the selected sectoral data, gender and year of the statistical data shown in the map.
8. Legends of the choropleth map is automatically adjusted to the unit of the selected data.  
The legend of index ranges from 0 to 1, that of percentage data ranges from 0 to 100 and that of number, i.e. population, ranges from 0 to its maximum number.

# SECTORAL DATA CHART

Chart's area:

Sectoral data is illustrated in a bar chart. Each bar represent a province



- i** For the Sectoral data chart, the Gem tool will generate charts as country based. You don't have to select areas on the interactive map. All provinces of your selected country will be shown on a bar chart.

# DOWNLOADING DATASET

You can download GII and Sectoral dataset on the GEM tool for free. The download menu has 2 sub-menu, which are Gender Inequality Index and Sectoral disaggregated data. There are multiple file formats available for download including Excel, CSV, PDF and GeoJson.

The screenshot shows the GEM tool interface with two main sections:

- Gender Inequality Index (Top Right):**
  - 1** Administrative boundary: Filters for Country (All) and Province (All).
  - 2** Gender Inequality Index: Filters for GII Dimensions (Gender Inequality Index), Indicators (None), and a date range from 2010 to 2021.
  - 3** FROM 2010 TO 2021: Date selection.
  - 4** Data Table: Shows GII values for Cambodia provinces from 2010 to 2015. The table includes columns: Area Code, Country, Province, GII, and Year.
  - 5** Download Options: COPY, EXCEL, CSV, PDF, GEOJSON.
- Sectoral disaggregated data (Bottom Right):**
  - 1** Administrative boundary: Filters for Country (Cambodia), Province (All), and a dropdown for Main Sector (Education) and Dataset (Drop-out rate in highschool : Male).
  - 2** Sex-disaggregated data by sector: Filters for Main Sector (Education) and Dataset (Drop-out rate in highschool : Male).
  - 3** FROM 2010 TO 2021: Date selection.
  - 4** Data Table: Shows education-related data for Cambodia provinces. The table includes columns: Area Code, Province, year, Section Name, Dataset Name level1, Dataset Name level2, value, data, and unit.
  - 5** Download Options: COPY, EXCEL, CSV, PDF, GEOJSON.

- i** Functions and interface of both GII and Sectoral dataset pages are mostly similar, except that you can select levels of administration on the GII page (By country or By province).

1. To download any data, select interested areas on the drop down list Administrative Boundary. Countries and provinces can be selected, you can also select "All" for retrieving data from all available countries and provinces.
2. Use the drop down lists to select dataset that you want to download. The drop down lists are different on GII and Sectoral dataset pages. For the GII download page, you can select GII data, Dimensions index and related indicators. For the Sex disaggregated data download page, you can select data by using Main sector and Dataset.
3. Select time period. Click on the Start and End years to select interested years on the popup box. Avoid typing to prevent errors.



4. All available data from your query and conditions will be shown on the table. You can change time period or areas if there is no available data on the table. Also, you can check availability of each dataset on the interactive map.
5. For the GII download page, you can change administration levels between country level or province level.
6. To export the data, click on any file format to start downloading, or click "copy" to copy the table.

The example of exported Excel file

GEM					
Area Code	Country	Province	GII	Year	
1	Cambodia	Bântéay Méanchey	0.71	2015	
1	Cambodia	Bântéay Méanchey	0.69	2010	
4	Cambodia	Kâmpóng Cham	0.65	2010	
4	Cambodia	Kâmpóng Cham	0.68	2015	
5	Cambodia	Kâmpóng Chhnang	0.6	2010	
5	Cambodia	Kâmpóng Chhnang	0.62	2015	
6	Cambodia	Kâmpóng Spœ	0.61	2015	
6	Cambodia	Kâmpóng Spœ	0.6	2010	
7	Cambodia	Kâmpóng Thum	0.61	2010	
7	Cambodia	Kâmpóng Thum	0.56	2015	
8	Cambodia	Kândal	0.62	2010	
8	Cambodia	Kândal	0.66	2015	
11	Cambodia	Krâchéh	0.62	2010	

- i** The above figure is downloaded GII data in excel file format, the conditions of the dataset selected are as listed below;
- Country - Cambodia
- Province - All
- Dimension - Gender Inequality Index
- Indicators - None
- Time period - 2010 to 2021

<b>Administrative boundary</b> Country <input type="button" value="Cambodia"/> Province <input type="button" value="All"/>	<b>Gender Inequality Index</b> GII Dimensions <input type="button" value="Gender Inequality Index"/> Indicators <input type="button" value="None"/>
<a href="#">BY COUNTRY</a> <a href="#">BY PROVINCE</a> <span style="float: right;">FROM <input type="button" value="2010"/> TO <input type="button" value="2021"/></span>	

# SENDING COMMENTS AND QUESTIONS

To send your comments or questions related to the GEM tool, go to "ABOUT" page then fill in your email and messages in the provided form. Your comments and questions will be sent to Admin of the GEM tool directly.

**Send comments/questions**

Please help us improving the tool by sharing your comments or send us your questions

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Email:

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comments/questions

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