



CLEAN ENERGY INVESTMENT ACCELERATOR

*Sector Wide Advancement Toolkit 2 Attachment: Global Solar Atlas Tool
User Walkthrough*



WORLD
RESOURCES
INSTITUTE

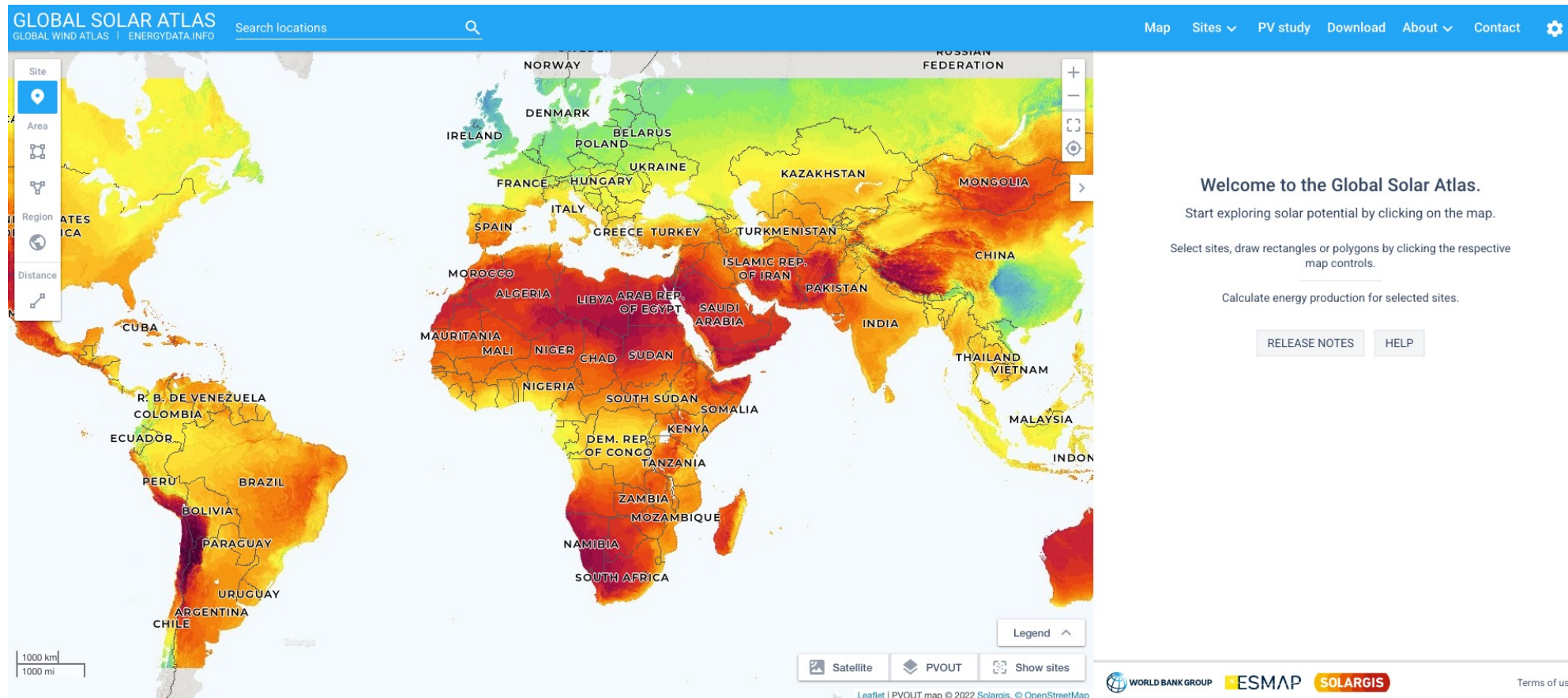


Overview of Steps

1. Go to Global Solar Atlas Website
2. Enter geographic coordinates of site
3. Choose the medium size commercial option
4. Toggle PV system configuration based on site characteristics and record annual PV output
5. Download report
6. Record monthly PV output from report

1. Go to Global Solar Atlas Website

Go to <https://globalsolaratlas.info/map>



The screenshot displays the Global Solar Atlas website interface. At the top, there is a blue navigation bar with the text "GLOBAL SOLAR ATLAS" and "ENERGYDATA.INFO". A search bar labeled "Search locations" is positioned to the right of the logo. Further right, there are links for "Map", "Sites", "PV study", "Download", "About", and "Contact", along with a settings gear icon.

The main content area features a world map with a color-coded solar potential heatmap. The map is overlaid with country borders and labels for various nations, including Norway, Denmark, Ireland, France, Spain, Greece, Turkey, Italy, Hungary, Poland, Belarus, Ukraine, Kazakhstan, Mongolia, China, India, Thailand, Vietnam, Malaysia, Indonesia, South Africa, and many others. A legend is located at the bottom right of the map area.

On the left side of the map, there is a vertical sidebar with several interactive elements: a "Site" button with a location pin icon, an "Area" button with a rectangle icon, a "Region" button with a globe icon, and a "Distance" button with a ruler icon. Below these buttons, there are labels for "AMERICA" and "ASIA".

At the bottom of the map, there are three buttons: "Satellite", "PVOUT", and "Show sites". Below these buttons, there is a small copyright notice: "Leaflet | PVOUT map © 2022 Solargis, © OpenStreetMap".

On the right side of the interface, there is a white panel with the following text:

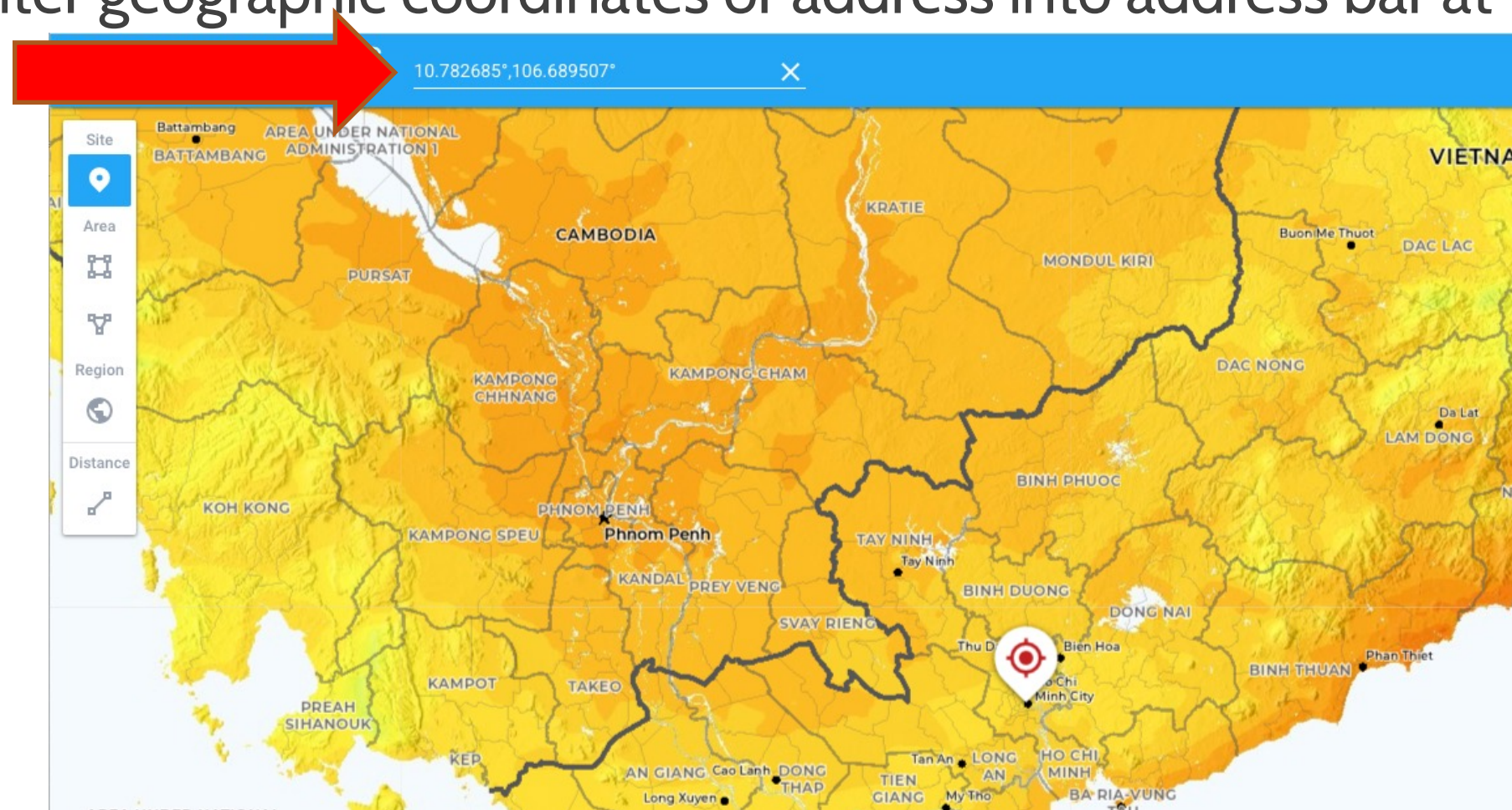
- Welcome to the Global Solar Atlas.**
- Start exploring solar potential by clicking on the map.
- Select sites, draw rectangles or polygons by clicking the respective map controls.
- Calculate energy production for selected sites.

 Below this text are two buttons: "RELEASE NOTES" and "HELP".

At the bottom of the page, there is a footer with logos for "WORLD BANK GROUP", "ESMAP", and "SOLARGIS", along with a link for "Terms of use".

2. Enter geographic coordinates of website

Enter geographic coordinates or address into address bar at top



3. Choose the medium size commercial option

- On the dashboard to the right, choose medium size commercial (bottom arrow).
- Note that the dashboard already provides an estimate of the locations PV output per kWp (top arrow)

Map data
Per year ▾

<input checked="" type="checkbox"/> Specific photovoltaic power output	PVOUT specific	1432.5 kWh/kWp ▾
Direct normal irradiation	DNI	1195.8 kWh/m ² ▾
Global horizontal irradiation	GHI	1787.7 kWh/m ² ▾
Diffuse horizontal irradiation	DIF	920.1 kWh/m ² ▾
Global tilted irradiation at optimum angle	GTI _{opta}	1820.1 kWh/m ² ▾
Optimum tilt of PV modules	OPTA	12 / 180 °
Air temperature	TEMP	27.8 °C ▾
Terrain elevation	ELE	11 m ▾

CHOOSE PV SYSTEM TO CALCULATE ENERGY YIELD ^



Small residential

Choose



Medium size comercial

Choose



Ground-mounted large scale

Choose



Floating large scale

Choose

[Open detail](#)


4. Toggle PV system configuration based on site characteristics and record annual PV output

- Users can change the azimuth, tilt, and capacity of the projected PV system by clicking “Change PV system” (top arrow)
- Users should record the total annual projected PV output (middle arrow)
- Users should then click “Open detail” to get more detailed results (bottom arrow)

PV SYSTEM DATA

PV system configuration

 Pv system: **Medium size comercial**
Azimuth of PV panels: **Default (180°)**
Tilt of PV panels: **Default (12°)**
Installed capacity: **100 kWp**

 [Change PV system](#)

Annual averages

Total photovoltaic power output and Global tilted irradiation

139.699 MWh per year ▼	1821.3 kWh/m ² per year ▼
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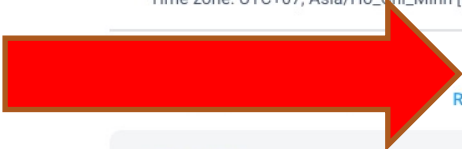

[Open detail](#)

5. Download report

On the next page that comes up, users should click on "reports to download the PV output report

← Project detail

Ho Chi Minh City
 10.782685°, 106.689507°
 Le Quy Don Street, Ho Chi Minh City, Vietnam
 Time zone: UTC+07, Asia/Ho_Chi_Minh [IDT]

  Reports

SITE INFO

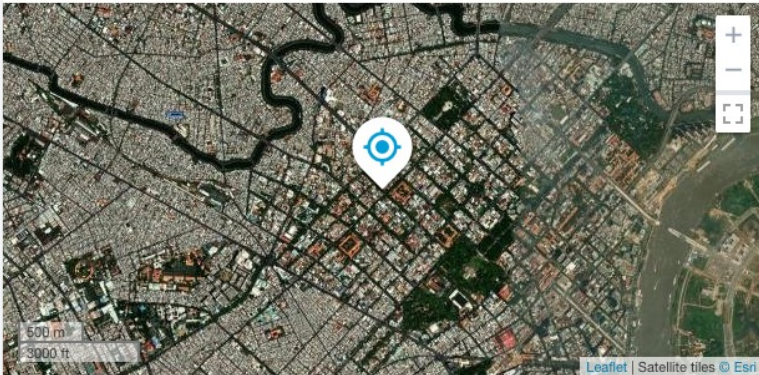
Map data Per year ▾

Direct normal irradiation	DNI	1195.8	kWh/m ² ▾
Global horizontal irradiation	GHI	1787.7	kWh/m ² ▾
Diffuse horizontal irradiation	DIF	920.1	kWh/m ² ▾
Global tilted irradiation at optimum angle	GTI _{opta}	1820.1	kWh/m ² ▾
Optimum tilt of PV modules	OPTA	12 / 180	°
Air temperature	TEMP	27.8	°C ▾
Terrain elevation	ELE	11	m ▾

Horizon and sunpath

Solar azimuth [°]

Map Swich to map



Leaflet | Satellite tiles © Esri

6. Record monthly PV output from report

User should now go to the "monthly_averages" tab in the downloaded report and record the monthly PV output under the "PVOUT_total" column

Monthly averages			
		PVOUT_total	DNI
		kWh	kWh/m ²
Jan	122.3	12228.7	110.3
Feb	129.6	12958	130.1
Mar	142.7	14271.6	134.6
Apr	128.2	12820.4	115.2
May	113.2	11323.6	100.1
Jun	100.5	10054.6	81.9
Jul	104.3	10426.4	82.4
Aug	109.7	10970.4	84.2
Sep	101.9	10194.8	72.3
Oct	111.9	11187.2	88.1
Nov	113.5	11354.3	102.8
Dec	114.5	11445.1	98.8
Yearly	1392.3	139234.9	1200.7

Congratulations!

Users now have both the annual and monthly PV outputs from Global Solar Atlas!