



MAPPING KIT

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- ✓ How to access ODC Mapping Kit
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PURPOSE

The Open Development Cambodia (ODC) mapping kit has been created as a low-tech, user-friendly way for viewing and customizing maps and sharing them online or printing them for fieldwork. More advanced functions include uploading geotagged photos and annotated maps so that they can be accessed online. Users should have basic familiarity with computers and the internet connection.

MAPPING KIT INTERFACE

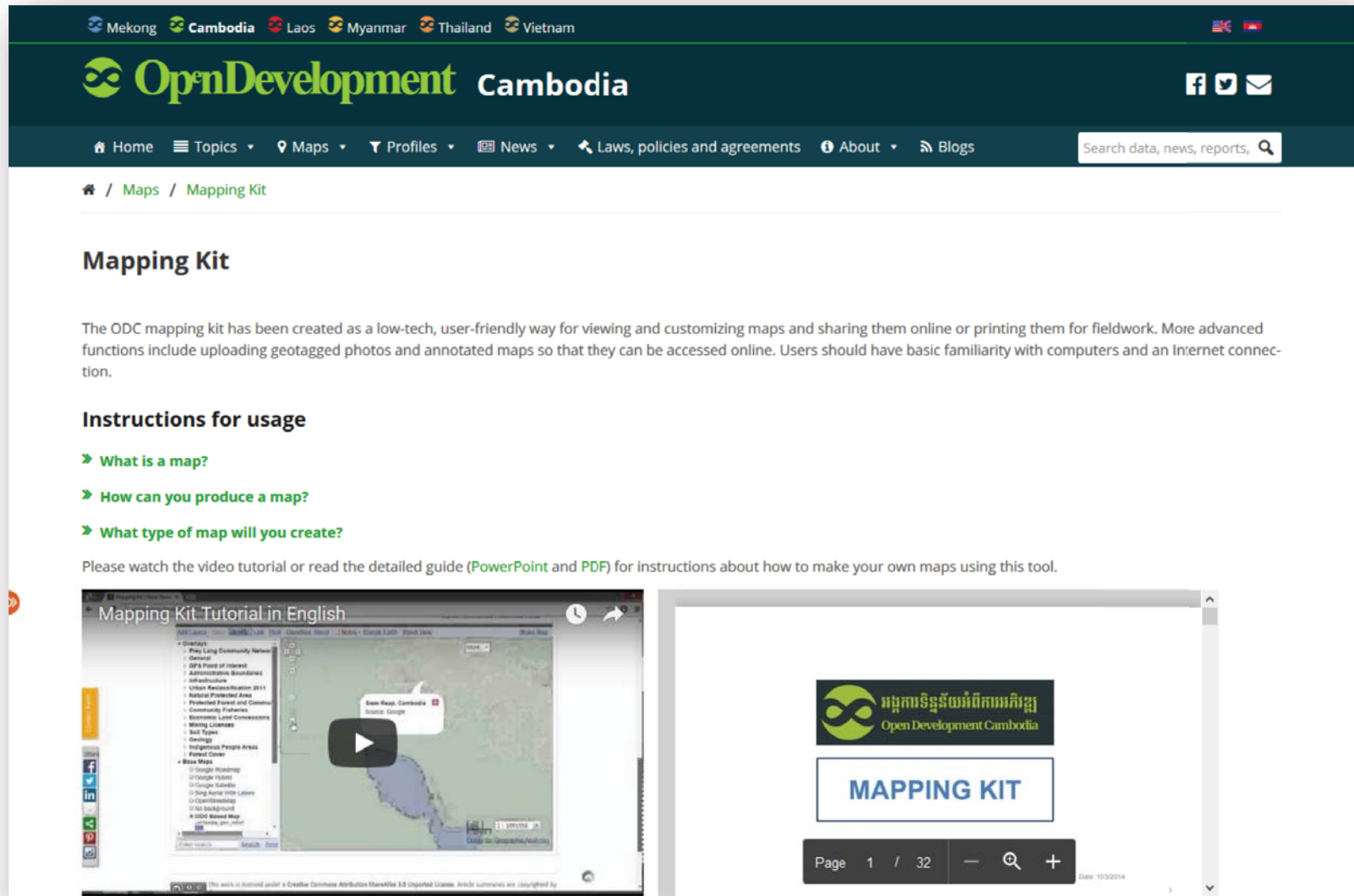
The mapping kit displays selections of ODC's existing data through the [Harvard WorldMap](#) interface. The ODC and WorldMap systems are maintained separately, but the interface is automatically updated when ODC uploads new information. User-submitted information shows up on the WorldMap and can be reviewed for future inclusion on the ODC website based on its accuracy and completeness.

HOW CAN THE KIT BE USED?

- View
- Edit
- Publish
- And share data with the world or just a few collaborators

HOW TO ACCESS ODC MAPPING KIT

Go to ODC Website: www.opendevcam.net/map-explorer/mapping-kit/



The screenshot shows the OpenDevelopment Cambodia website interface. At the top, there is a navigation bar with links for Mekong, Cambodia, Laos, Myanmar, Thailand, and Vietnam. The main header features the OpenDevelopment Cambodia logo and social media icons for Facebook, Twitter, and Email. Below the header is a secondary navigation bar with links for Home, Topics, Maps, Profiles, News, Laws, policies and agreements, About, and Blogs. A search bar is located on the right side of this bar. The main content area shows the breadcrumb path: Home / Maps / Mapping Kit. The title "Mapping Kit" is prominently displayed. Below the title, there is a paragraph explaining that the ODC mapping kit is a low-tech, user-friendly tool for viewing and customizing maps. It lists advanced functions like uploading geotagged photos and annotated maps. A section titled "Instructions for usage" contains three bullet points: "What is a map?", "How can you produce a map?", and "What type of map will you create?". Below this, a text block suggests watching a video tutorial or reading a detailed guide (PowerPoint and PDF). At the bottom, there are two preview images: one of a video player titled "Mapping Kit Tutorial in English" showing a map of Cambodia with various layers, and another of a document titled "MAPPING KIT" with a page number of 1 / 32 and a date of 10/3/2014.

Make your own maps

The mapping kit displays selections of ODC's existing data through the Harvard WorldMap interface. The ODC and WorldMap systems are maintained separately, but the interface is automatically updated when ODC uploads new information. User-submitted information shows up on the WorldMap and can be reviewed for future inclusion on the ODC website based on its accuracy and completeness.

The screenshot shows the WorldMap ODC Mapping Kit interface. At the top, the "WorldMap" logo is on the left, and "ODC Mapping Kit" is in the center. On the right, there are links for "Sign in | Create Map | View Map | Help". Below the header is a toolbar with buttons for "Add Layers", "Save", "Identify", "Link", "Print", "Gazetteer", "About", "Notes", "Google Earth", "Street View", "Measure", and "Share Map".

On the left side, there is a sidebar menu with two main sections: "Overlays" and "Base Maps". The "Overlays" section is expanded, showing a list of data layers such as "Management Zones", "Infrastructure", "Airport in Cambodia", "Land Mine/ERW Casualties 2005-2011", "Social Land Concession", "Health Facilities (2010)", "Road and Railway Network", "Education", "Public Service", "Place Locations", "Administrative Boundaries", "Urban Reclassification 2011", "Natural Protected Area", "Protected Forest and Community Fo", "Community Fisheries", "Economic Land Concessions", "Mining Licenses", "Soil Types", "Geology", "Indigenous People Areas", and "Forest Cover". The "Base Maps" section is collapsed, showing options for "Google Roadmap" and "Google Hybrid".

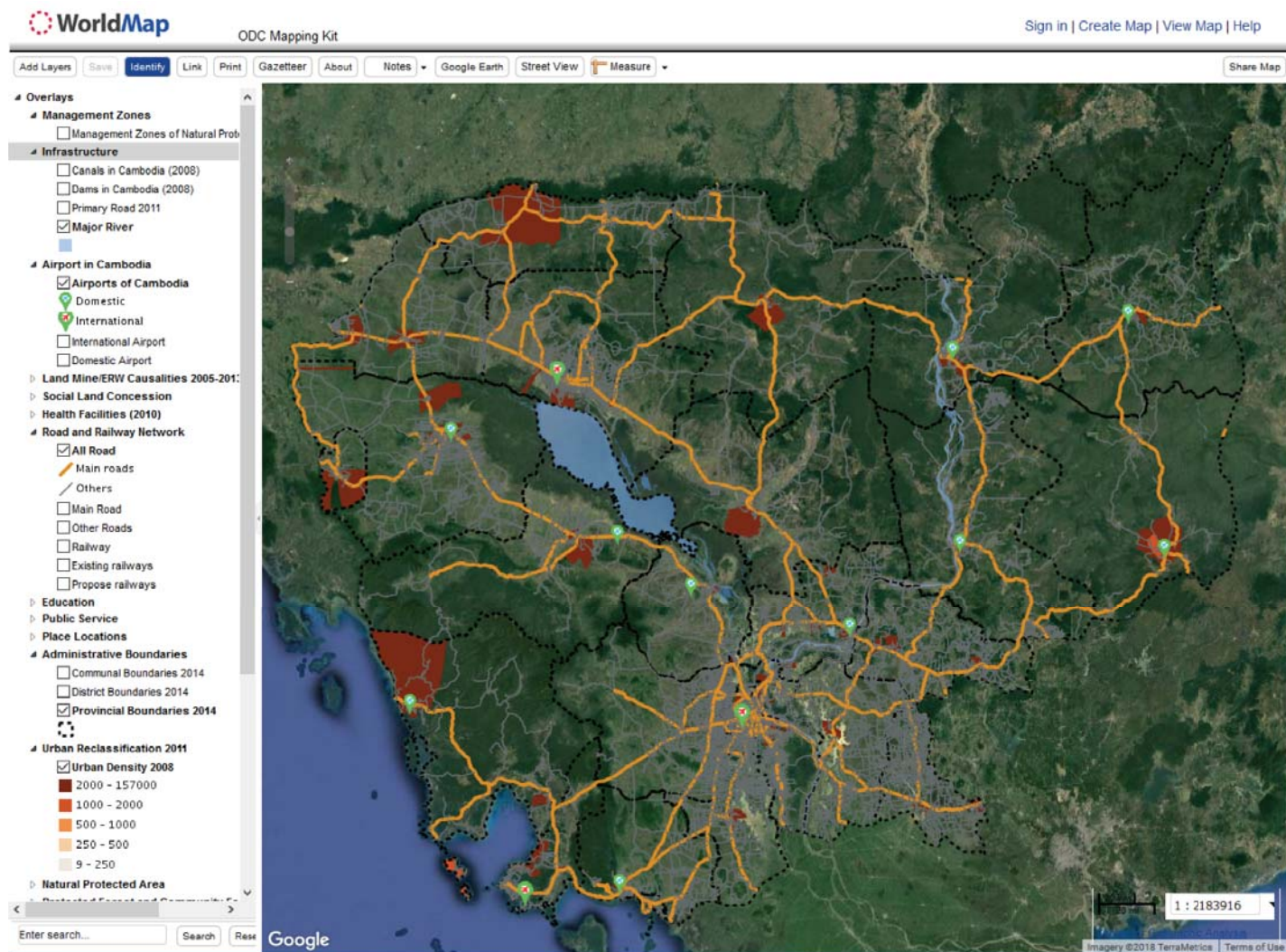
The main map area displays a satellite-style map of Cambodia with various overlays. A scale bar at the bottom right indicates 100 km and 50 miles. The scale is set to 1:2183916. The Google logo is visible at the bottom left of the map area.

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VIEW THE MAP

The mapping kit displays selections of ODC's existing data through the Harvard WorldMap interface. For example: major river, airports of Cambodia, all road, provincial boundaries 2014, urban density 2014, etc.

You may check/uncheck the boxes to add/remove the layers for your own mapping purposes.



FUNCTIONALITIES



1. **Add Layers** : to add and create vector data, upload shapefiles and scanned maps, and request data from Geoserver
2. **Save** : to save the map that you already worked on
3. **Identify** : to show the popup information at a particular location
4. **Link** : to share your result or embed it the website
5. **Print** : to print a map as a PDF or in another format
6. **Gazetteer** : to search for a place name
7. **About** : to see information about what you have done
8. **Notes** : to add notes or descriptions as points, lines or polygons
9. **Google Earth** : to use Google Earth in the website
10. **Street View** : to view Google Street photographs
11. **Measure** : to measure a place by length or area
12. **Share Map** : to share information of the map to other

FUNCTIONALITIES

- ADD LAYERS

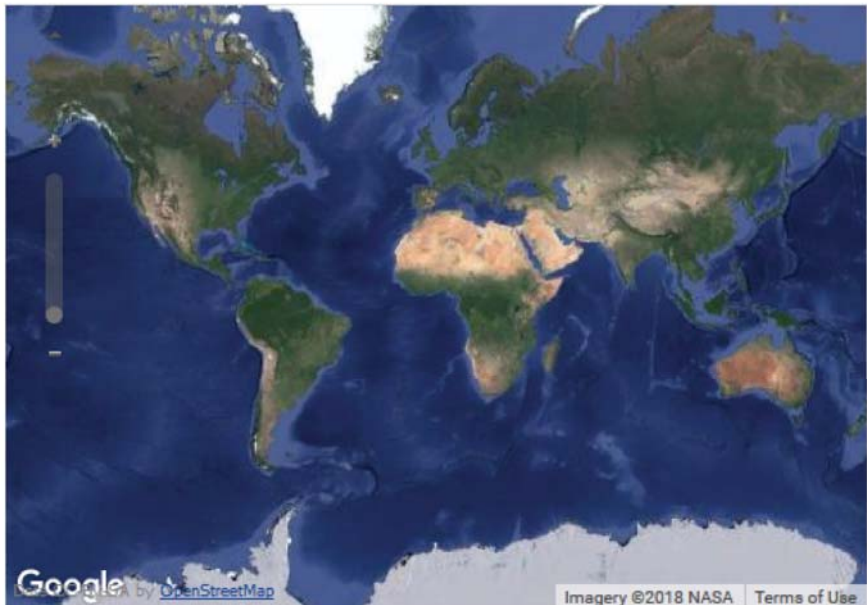
- Search
- Rectify layers

Search BETA

SEARCH Rectify Layer Submit a Map Service

Keyword Source All Layers Search Reset

from year 5000M BCE to year Future



Google by OpenStreetMap Imagery ©2018 NASA Terms of Use

Title	Source	Date
Projects with extra inform...	worldmap.ha...	2016
Vasco da Gama and Columbus	warp.world...	2016
Ampelmann Normal Projects	worldmap.ha...	2016
rcjutopia3	worldmap.ha...	2016
houserutopia	worldmap.ha...	2016
Utopia	worldmap.ha...	2016
GlobalCooperation	worldmap.ha...	2016
Map of South America, showi...	maps.nypl.org	1860
Map of Africa, showing its mo...	maps.nypl.org	1860
Strategic urban infrastructure ...	worldmap.ha...	2012
Urban region	worldmap.ha...	2012
Sub-centres	worldmap.ha...	2012
Flagship projects	worldmap.ha...	2012
Areas of (re)investment	worldmap.ha...	2012

Prev Next Showing 1-200 of 124808

Projects with extra information

Clear Selected Add To Map

-- ADDING DATA FROM HARVARD WORLDMAP

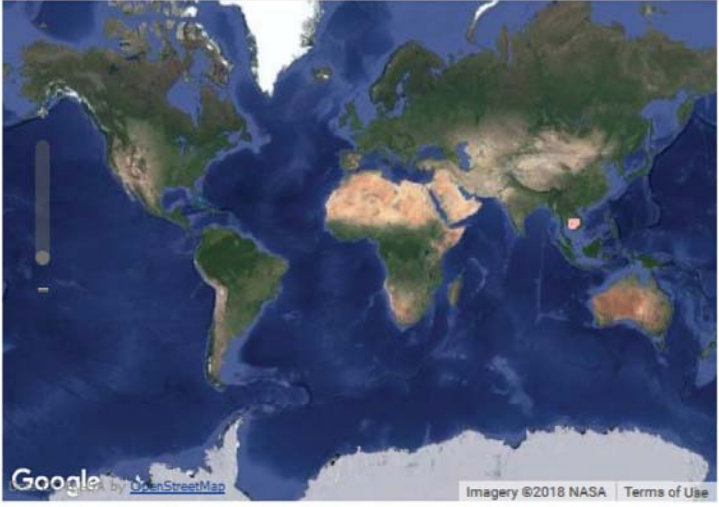
1. Type a keyword to search for layers
2. Click **“Search”**
3. Select data
4. Click **“Add to Map”** to add the layer you want to your custom map.

Search BETA

SEARCH Rectify Layer Submit a Map Service

odc Source All Layers Search Reset

from year 5000M BCE to year Future



Google by OpenStreetMap Imagery ©2018 NASA Terms of Use

Title	Source	Date
ODC	worldmap.ha...	2016
odc	worldmap.ha...	2016
ODC Map	worldmap.ha...	2016
GPS for testing with ODC	worldmap.ha...	2016
RUPP tree inventory	worldmap.ha...	2016
food	worldmap.ha...	2016
Siphonwatphnom	worldmap.ha...	2016
Busstop_phnom_penh	worldmap.ha...	2016
Protected Area in Cambodia	worldmap.ha...	2016
seilarestaurant	worldmap.ha...	2016
Existing railways	worldmap.ha...	2018
Main Road	worldmap.ha...	2018
Other Roads	worldmap.ha...	2018
Process railway	worldmap.ha...	2018

Prev Next Showing 1-15 of 15

ODC Map

Clear Selected **Add To Map**

-- RECTIFYING LAYERS


Upload scanned maps with a geo-referenced tool.

Search BETA ×

Search **RECTIFY LAYER** Submit a Map Service

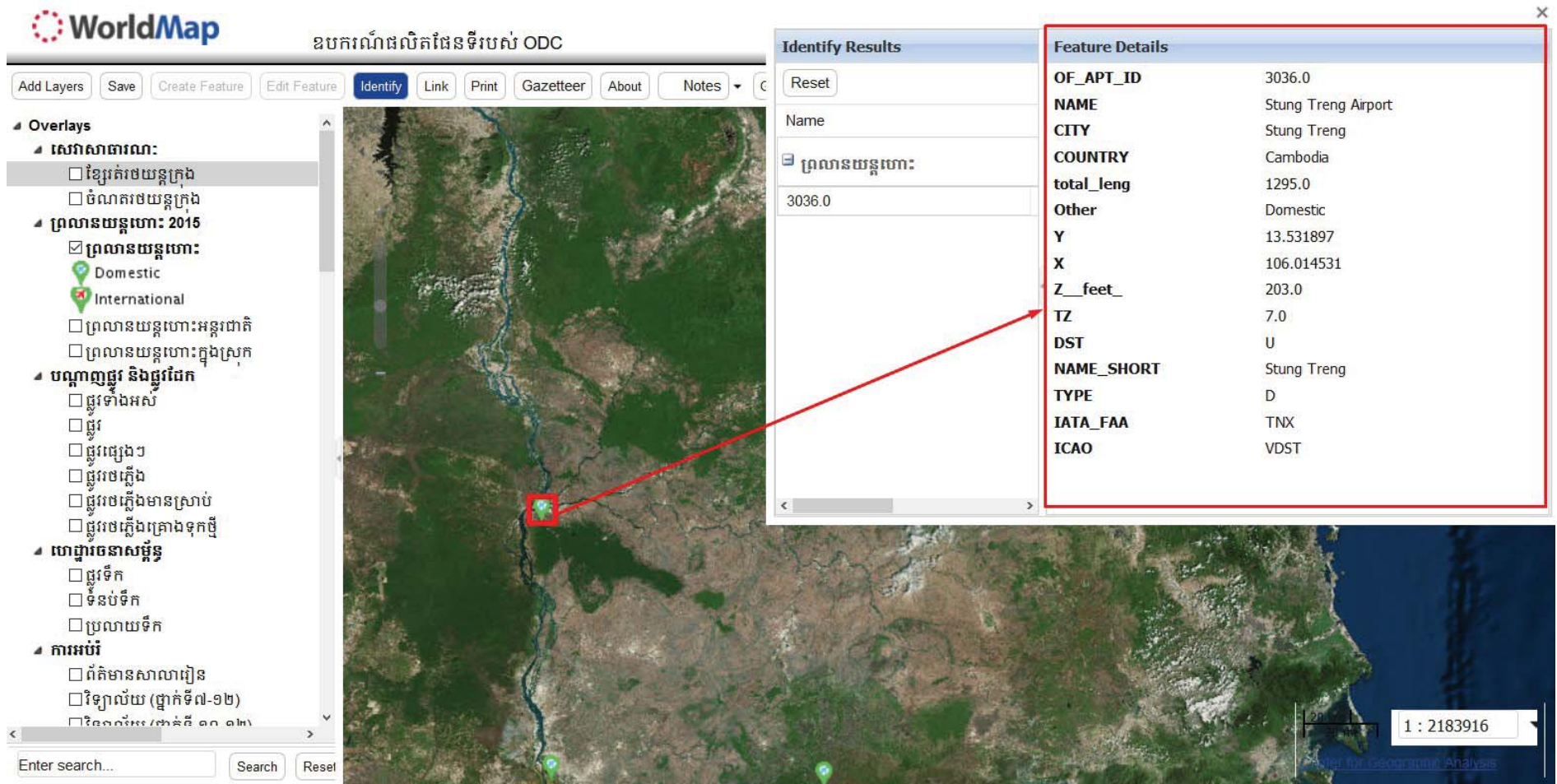
Rectify Images
Use [WorldMap WARP](#) to upload and rectify scanned maps for use in WorldMap.

Maps rectified using this tool can be brought into WorldMap by following the instructions under Section 4.5 in [WorldMap Help](#).



- IDENTITY

By clicking on the “Identify” tool, you can see pop-ups with information related to the feature you have selected.



WorldMap ឧបករណ៍ផលិតផលផ្សេងៗរបស់ ODC

Buttons: Add Layers, Save, Create Feature, Edit Feature, **Identify**, Link, Print, Gazetteer, About, Notes

Overlays

- សេវាសាធារណៈ
 - ខ្សែគំរូយន្តក្រុង
 - ចំណាត់ថយន្តក្រុង
- ព្រលានយន្តហោះ: 2015
 - ព្រលានយន្តហោះ:
 - Domestic
 - International
 - ព្រលានយន្តហោះអន្តរជាតិ
 - ព្រលានយន្តហោះក្នុងស្រុក
- បណ្តាញផ្លូវ និងផ្លូវដែក
 - ផ្លូវទាំងអស់
 - ផ្លូវ
 - ផ្លូវផ្សេងៗ
 - ផ្លូវមេភ្នំ
 - ផ្លូវមេភ្នំមានស្រាប់
 - ផ្លូវមេភ្នំគ្រោងទុកថ្មី
- ហេដ្ឋារចនាសម្ព័ន្ធ
 - ផ្លូវទឹក
 - ទំនប់ទឹក
 - ប្រលាយទឹក
- ការអប់រំ
 - ព័ត៌មានសាលារៀន
 - វិទ្យាល័យ (ថ្នាក់ទី៧-១២)
 - វិទ្យាល័យ (ថ្នាក់ទី ១១, ១២)

Identify Results

Reset

Name

ព្រលានយន្តហោះ:

3036.0

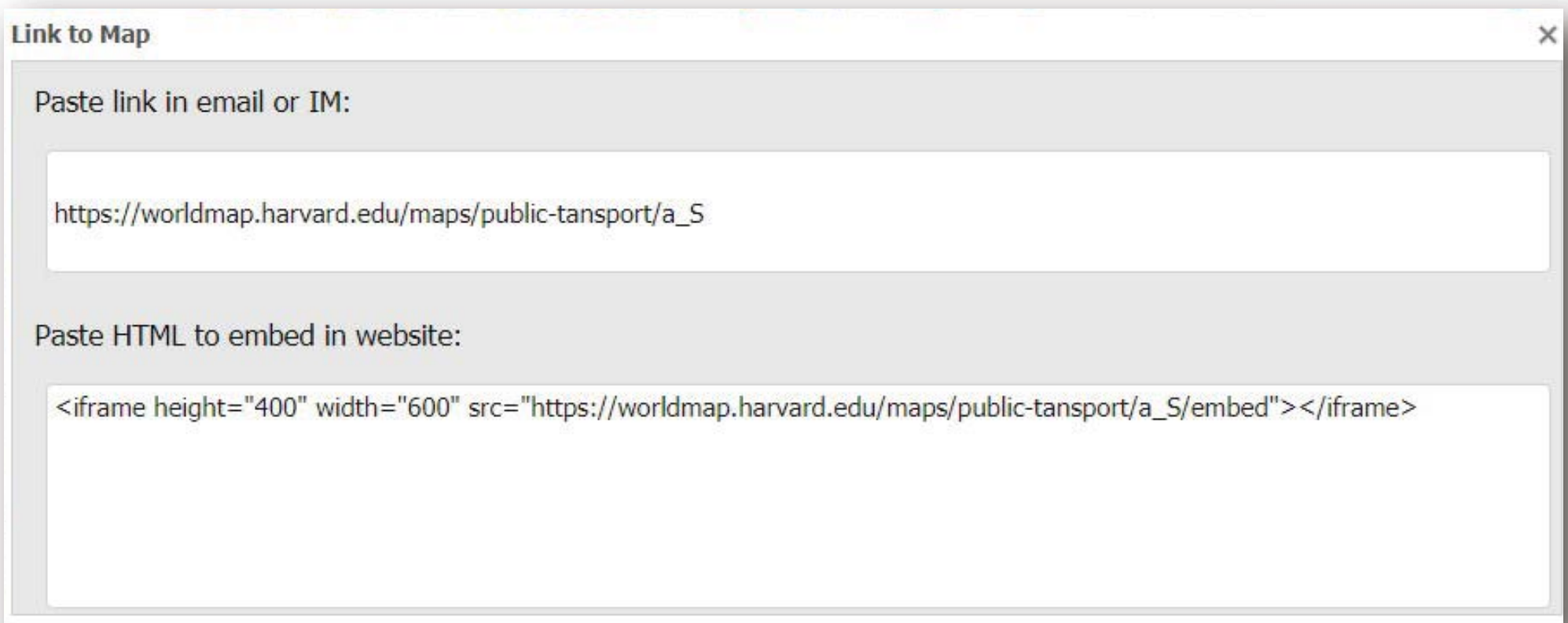
Feature Details

OF_APT_ID	3036.0
NAME	Stung Treng Airport
CITY	Stung Treng
COUNTRY	Cambodia
total_leng	1295.0
Other	Domestic
Y	13.531897
X	106.014531
Z__feet__	203.0
TZ	7.0
DST	U
NAME_SHORT	Stung Treng
TYPE	D
IATA_FAA	TNX
ICAO	VDST

Scale: 1 : 2183916

- LINK

By Clicking on “Link” tool, you get the URL to embed this map in your website.



Link to Map ✕

Paste link in email or IM:

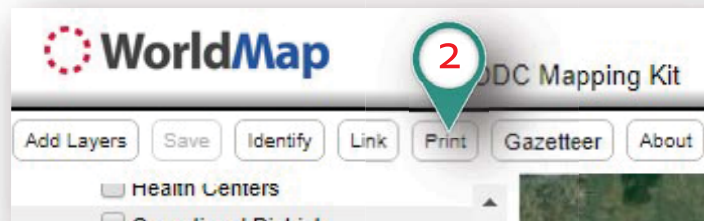
https://worldmap.harvard.edu/maps/public-tansport/a_S

Paste HTML to embed in website:

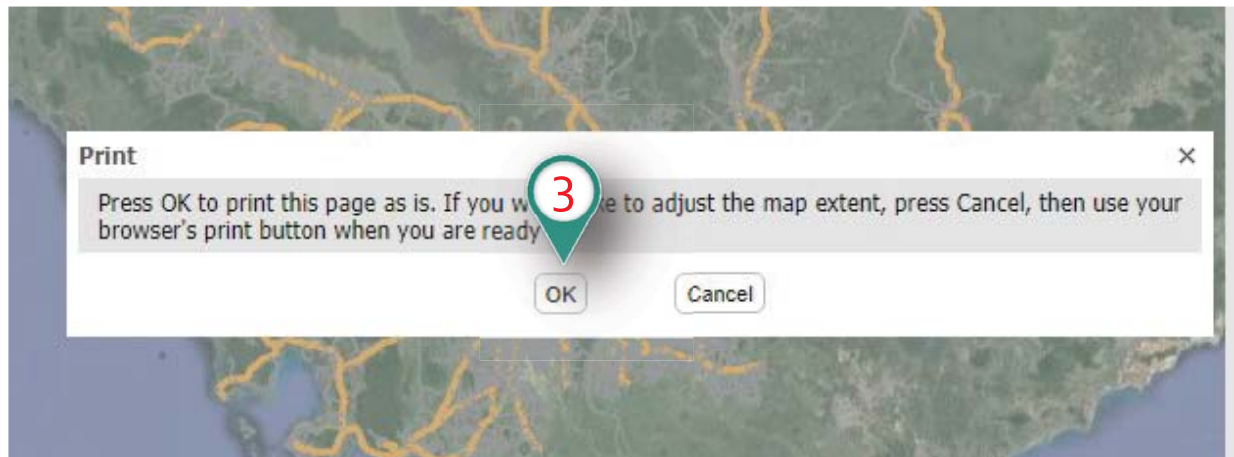
```
<iframe height="400" width="600" src="https://worldmap.harvard.edu/maps/public-tansport/a_S/embed"></iframe>
```

- PRINT

1. Check some layers to display on map
2. Click the "Print Button"



3. If you want to print a simple map with the current map extent, Click "OK".

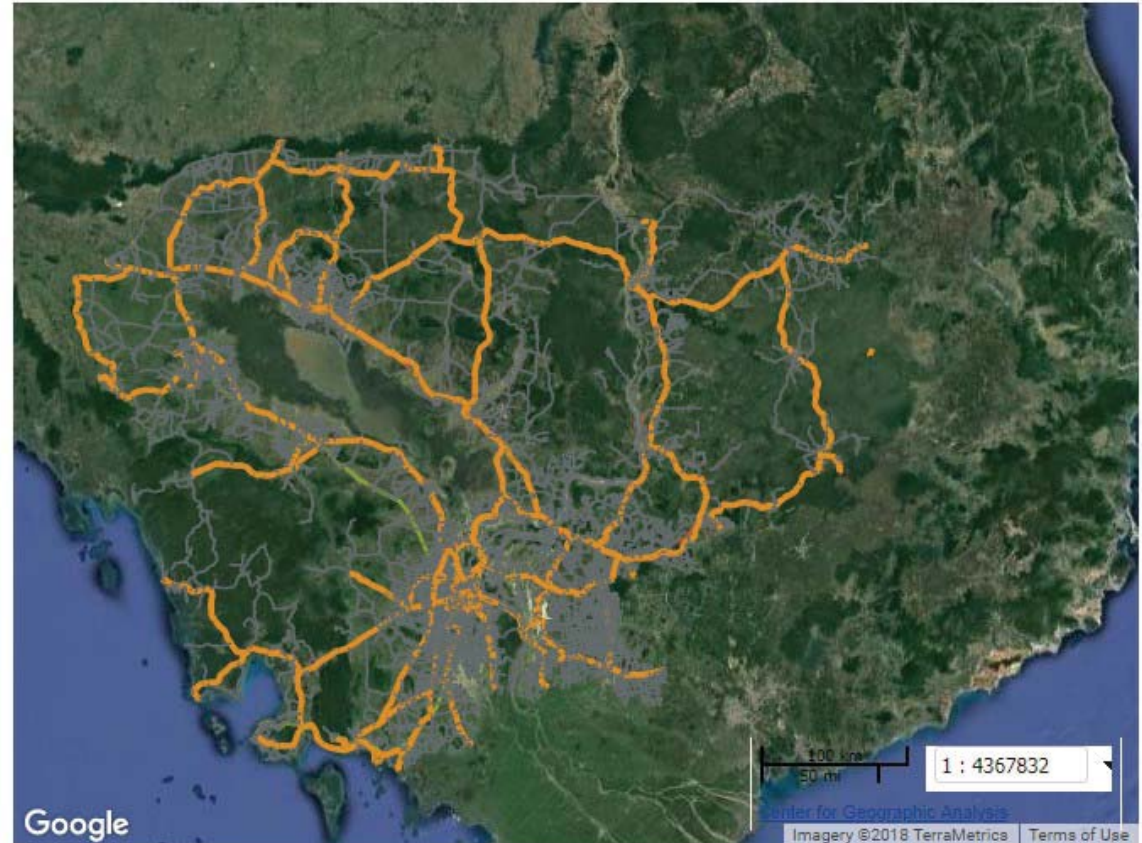


- PRINT

If you want to adjust the map, click “**Cancel**”, adjust map extent, and print using you browser’s print button or use keyboard “**Ctrl + P**”.


ODC Mapping Kit


This is the mapping kit to make your own maps.




LEGEND


All Road

 Main roads

 Others

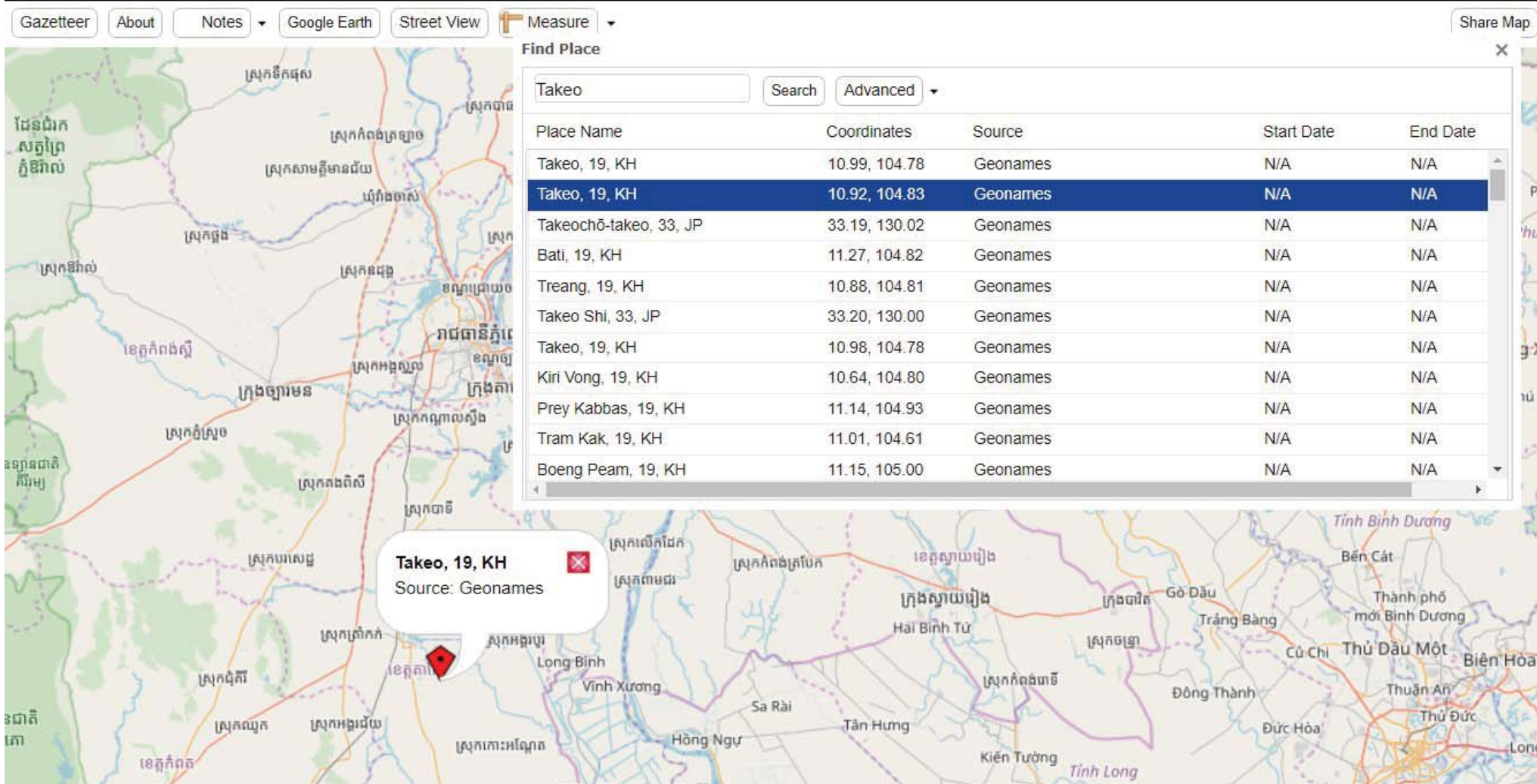
Railway

 Existing

 Proposed New Lines

- Gazetteer (Place Names)

By clicking on the “Gazetteer” tool, you can search for the place names and do geocoding.



Navigation: Gazetteer | About | Notes | Google Earth | Street View | Measure | Share Map

Find Place

Takeo Search Advanced

Place Name	Coordinates	Source	Start Date	End Date
Takeo, 19, KH	10.99, 104.78	Geonames	N/A	N/A
Takeo, 19, KH	10.92, 104.83	Geonames	N/A	N/A
Takeochō-takeo, 33, JP	33.19, 130.02	Geonames	N/A	N/A
Bati, 19, KH	11.27, 104.82	Geonames	N/A	N/A
Treang, 19, KH	10.88, 104.81	Geonames	N/A	N/A
Takeo Shi, 33, JP	33.20, 130.00	Geonames	N/A	N/A
Takeo, 19, KH	10.98, 104.78	Geonames	N/A	N/A
Kiri Vong, 19, KH	10.64, 104.80	Geonames	N/A	N/A
Prey Kabbas, 19, KH	11.14, 104.93	Geonames	N/A	N/A
Tram Kak, 19, KH	11.01, 104.61	Geonames	N/A	N/A
Boeng Peam, 19, KH	11.15, 105.00	Geonames	N/A	N/A

Map tooltip: **Takeo, 19, KH**
Source: Geonames

- ABOUT

Public Transportation

The Harvard WorldMap Project

WorldMap is an open source web mapping system that is currently under construction. It is built to assist academic research and teaching as well as the general public and supports discovery, investigation, analysis, visualization, communication and archiving of multi-disciplinary, multi-source and multi-format data, organized spatially and temporally.

The first instance of WorldMap, focused on the continent of Africa, is called AfricaMap. Since its beta release in November of 2008, the framework has been implemented in several geographic locations with different research foci, including metro Boston, East Asia, Vermont, Harvard Forest and the city of Paris. These web mapping applications are used in courses as well as by individual researchers.

Introduction to the WorldMap Project

WorldMap solves the problem of discovering where things happen. It draws together an array of public maps and scholarly data to create a common source where users can:

1. Interact with the best available public data for a city/region/continent
2. See the whole of that area yet also zoom in to particular places
3. Accumulate both contemporary and historical data supplied by researchers and make it permanently accessible online
4. Work collaboratively across disciplines and organizations with spatial information in an online environment

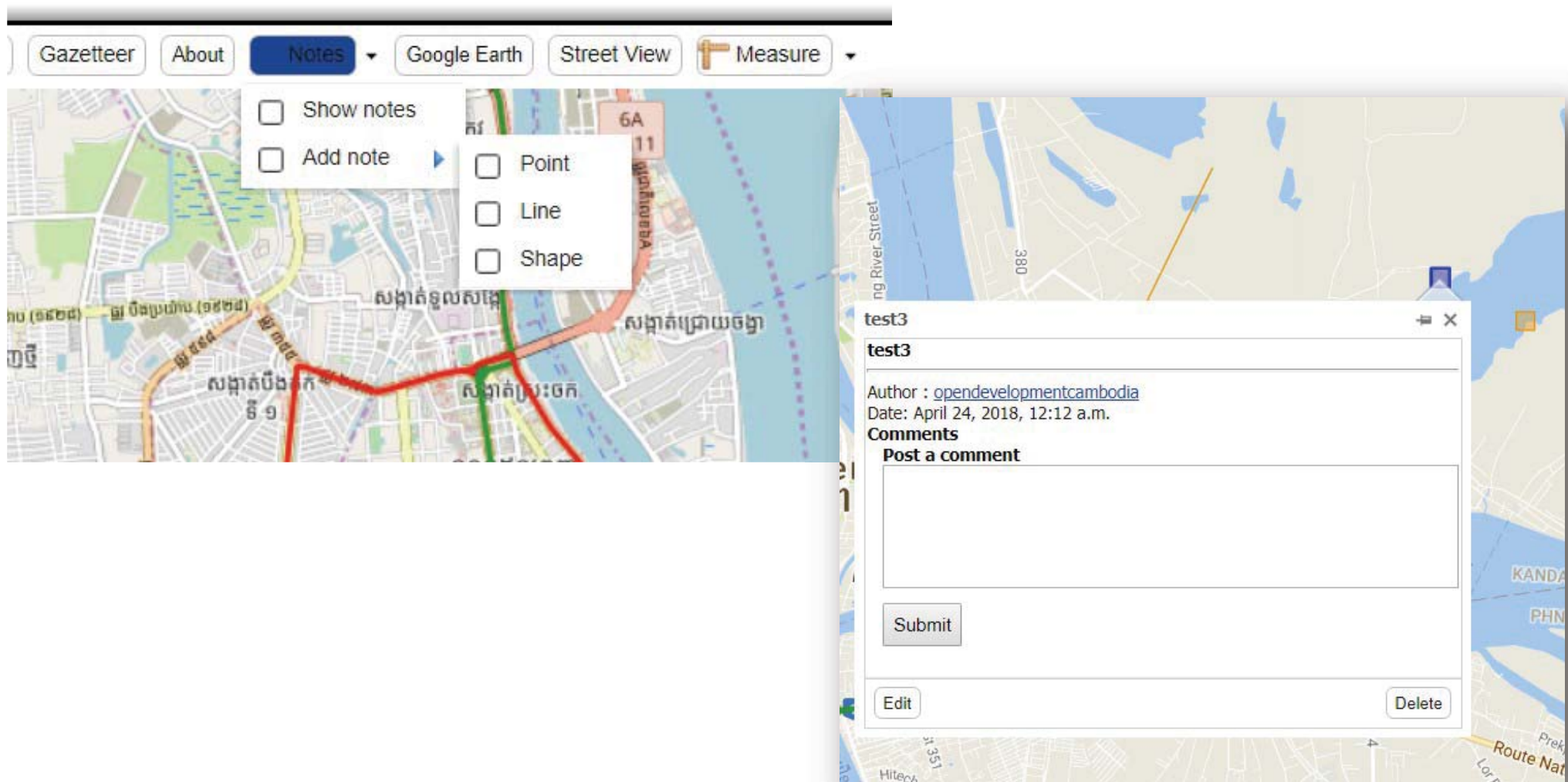
The WorldMap project aims to accomplish these goals in stages, with public and private support. It draws on the basic insight of geographic information systems that spatiotemporal data becomes more meaningful as more "layers" are added, and

By clicking on the **"About"** tool, you can see information which you have described earlier about your map/project.

The **"About"** pop-up box is not necessary but can be useful if you want to include an introduction to your project.

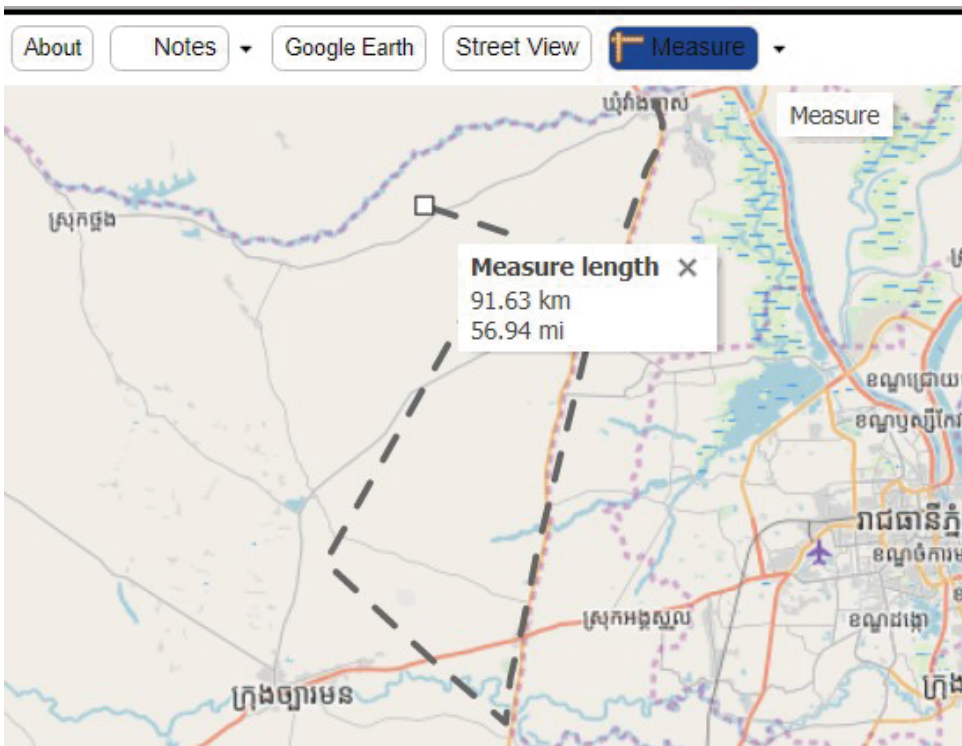
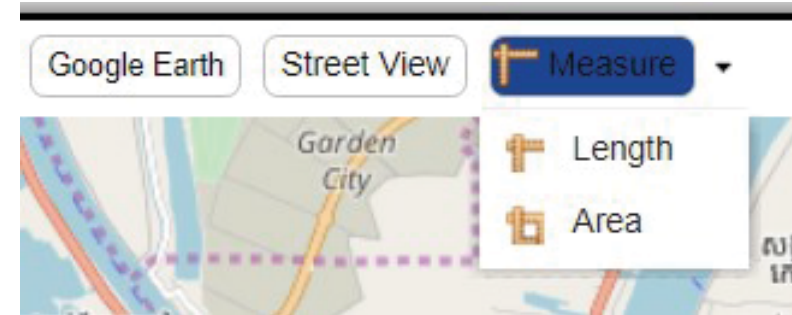
- NOTES

By clicking on the “Notes” tool, you can draw points, lines or polygons as the notification for events on the map window.

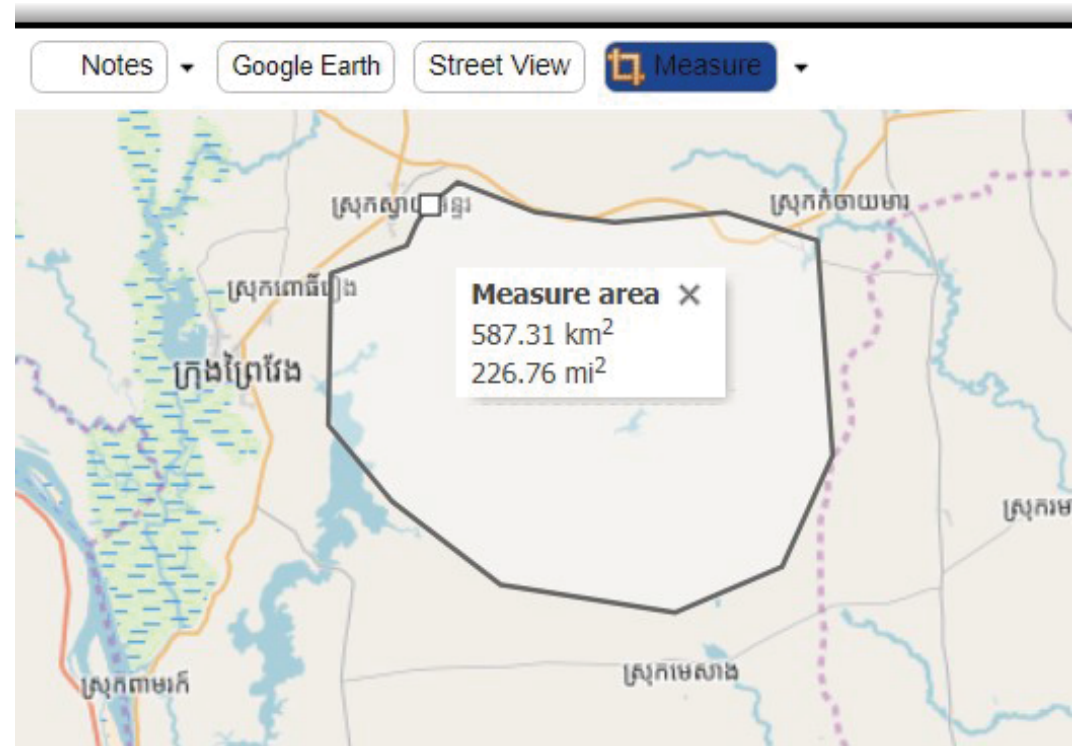


- MEASURE

By click on the "Measure" tool, you can measure the map by length or area.



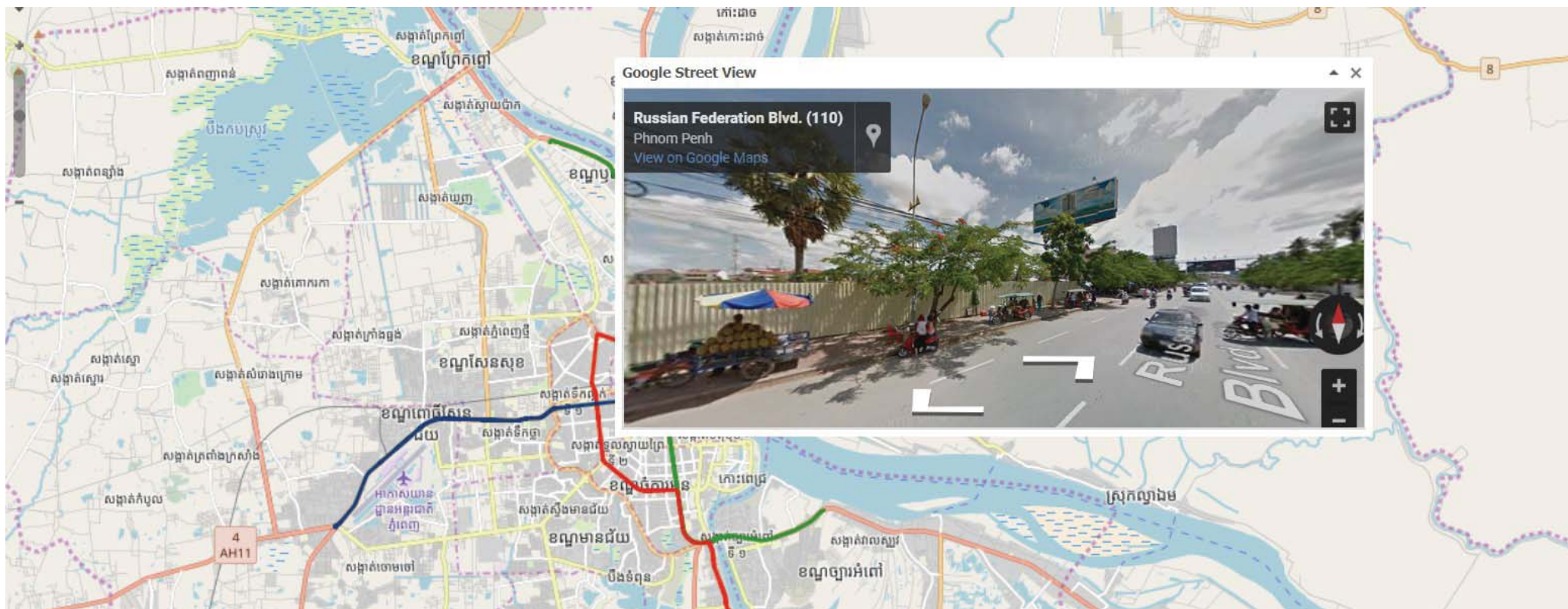
Measure by Length



Measure by Area

- STREET VIEW

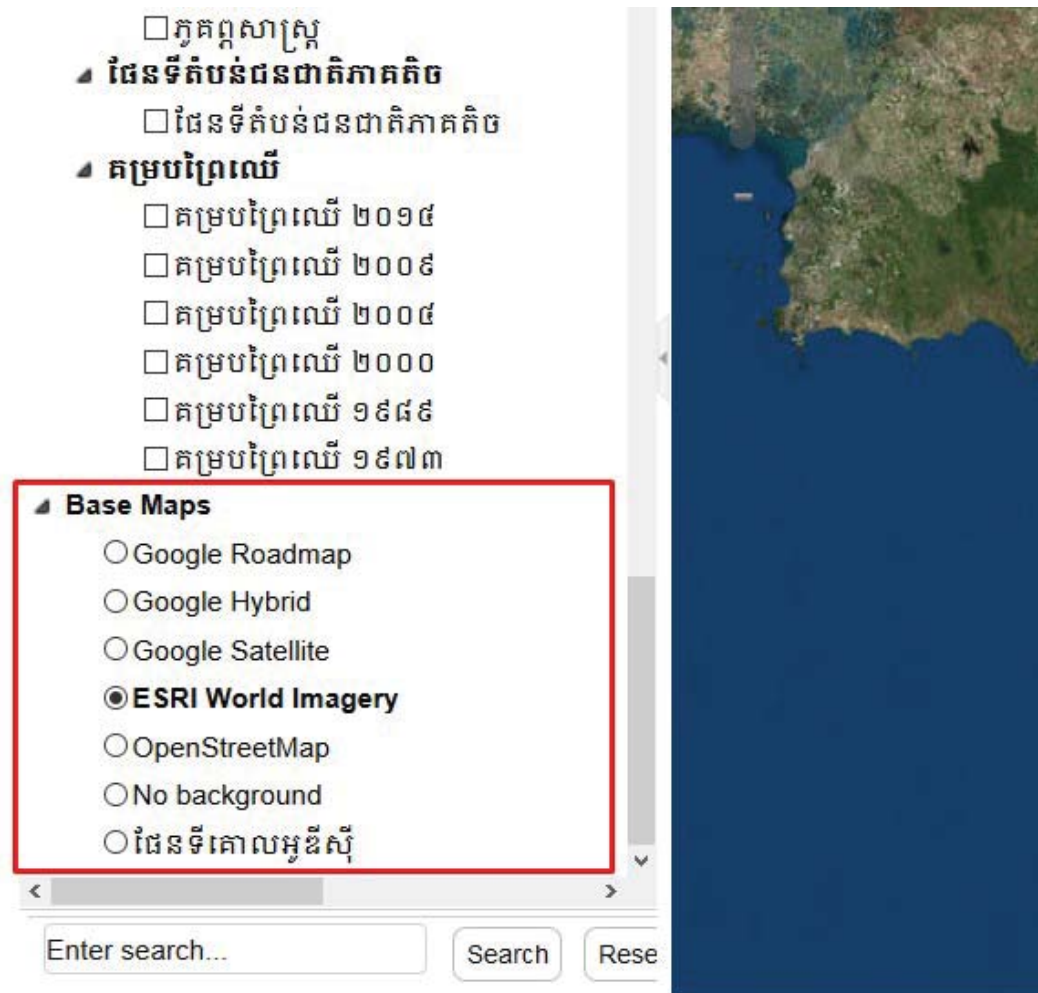
1. Select “Street View” tool
2. Click on a street



Note : If Street View is available for that location, it will be displayed.

- CHOICE OF BASE MAPS

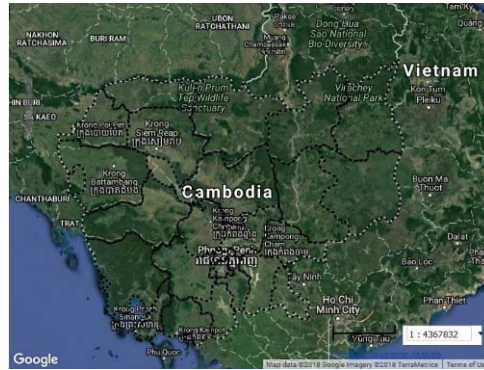
You may check/uncheck the boxes to change the base maps for your own mapping purposes.



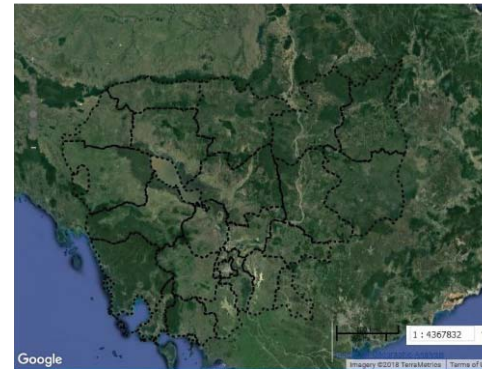
- TYPE OF BASE MAPS



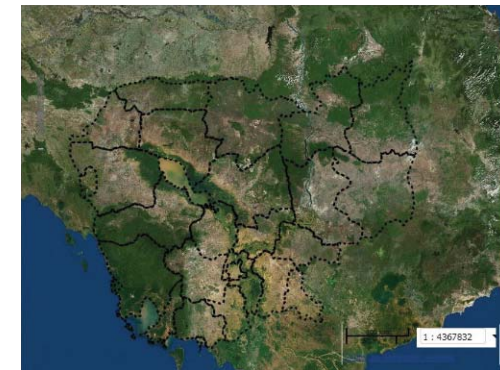
Google Road Map



Google Hybrid



Google Satellite



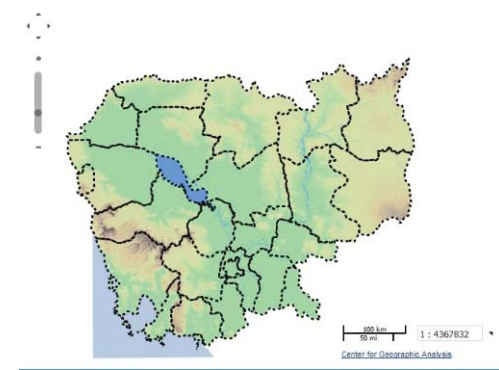
ESRI World Imagery



Google Road Map



No Background



ODC Based Map

- WAYS TO ZOOM

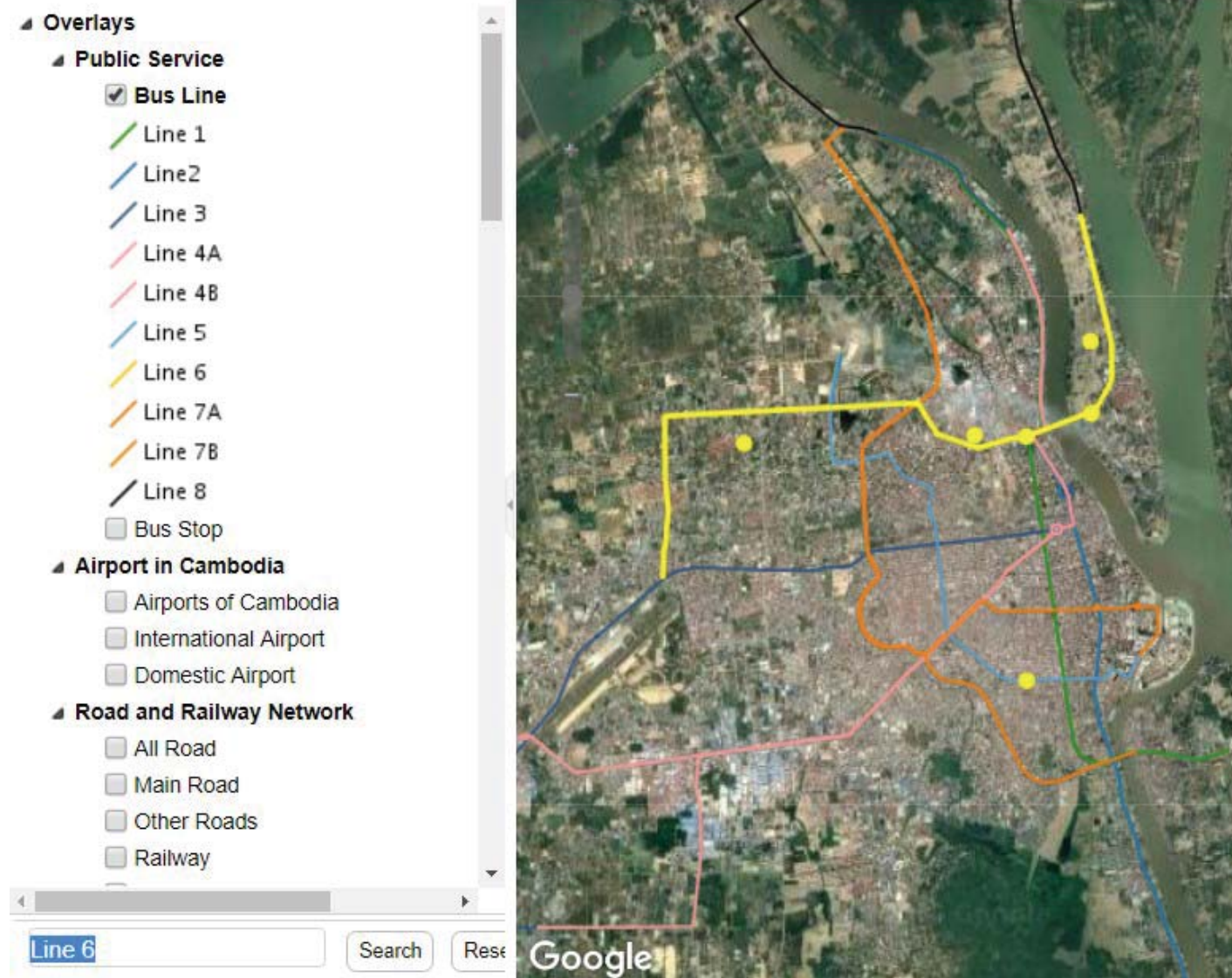
There are several ways you can zoom (change scales) in WorldMap:

- Map navigation tools include the standard zoom bar and map drag
- Roll your mouse wheel
- Choose a scale from the scale bar readout.
- Zoom and pan simultaneously by defining a box on the map (shift-drag box) which upon release zooms to the area you defined with the box
- You can right-click on layer name and select “Zoom to Layer Extent” to zoom to that layer.

- SEARCH BOX

You can search the information of data in the Search box.

1. Check the layers you want to search
2. Type word that is information of data
3. Click **“Search”** button. The data will highlight on the map.



NOTE: MAPPING KIT

In order to add layers or create a new map using the Harvard WorldMap Tool, each user must register and create an account. Your work will be documented and stored in your account.

HOW TO MAKE YOUR OWN MAPS

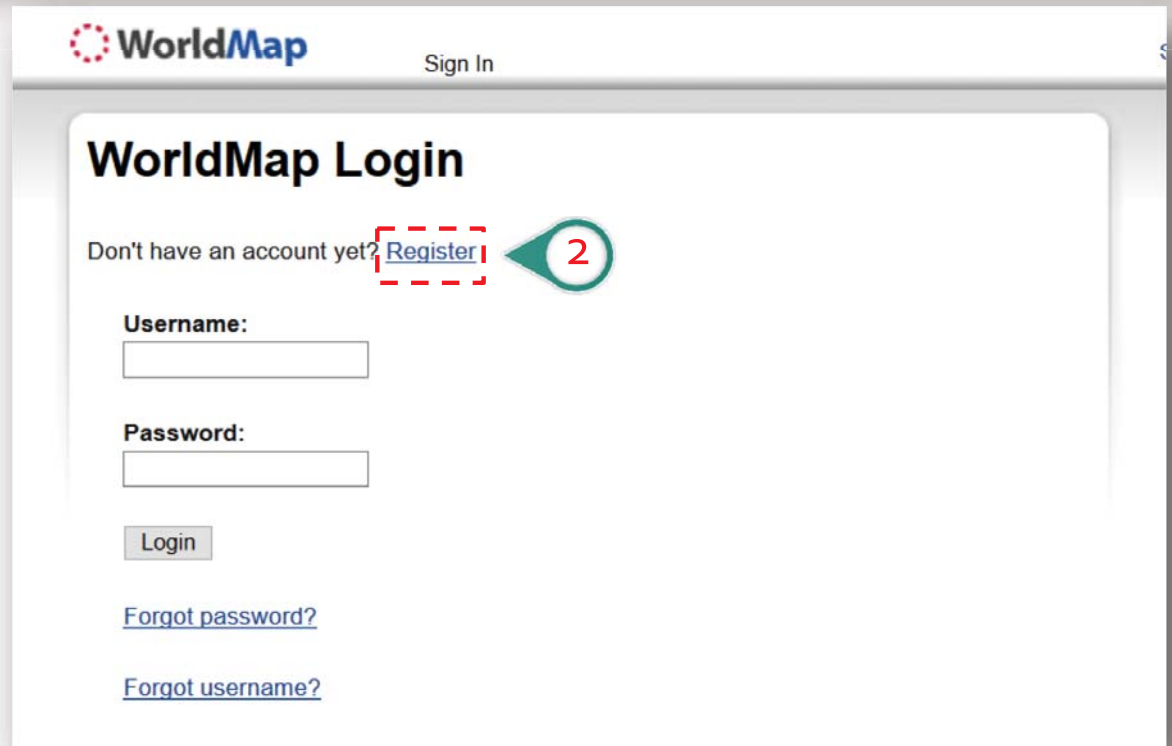
- REGISTERING

If you don't have an account in [WorldMap](#), please register.

1. Click "Sign In"

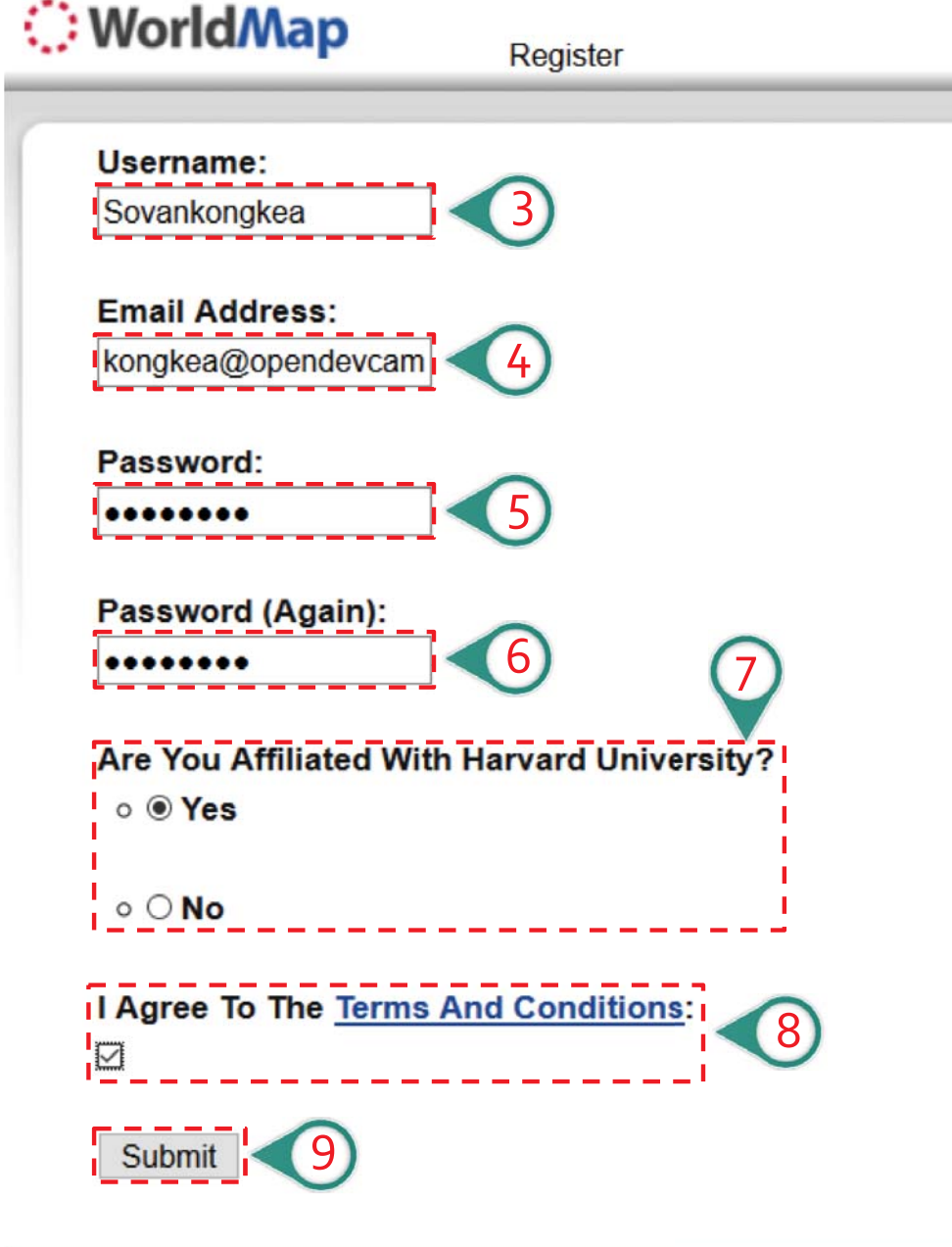


2. Click "Register"



FILL IN THE "REGISTER"

3. Type in your "Username"
4. Enter your "Email Address"
5. Create a "Password"
6. Confirm your "Password (Again)"
7. Click on
 - "Yes" if you are affiliated with Harvard University.
 - "No" if you are not affiliated with Harvard University.
8. Tick box in "you agree to the Terms and Conditions"
9. Click on "Submit"
10. Check your email and verify your account by clicking on the link provided.



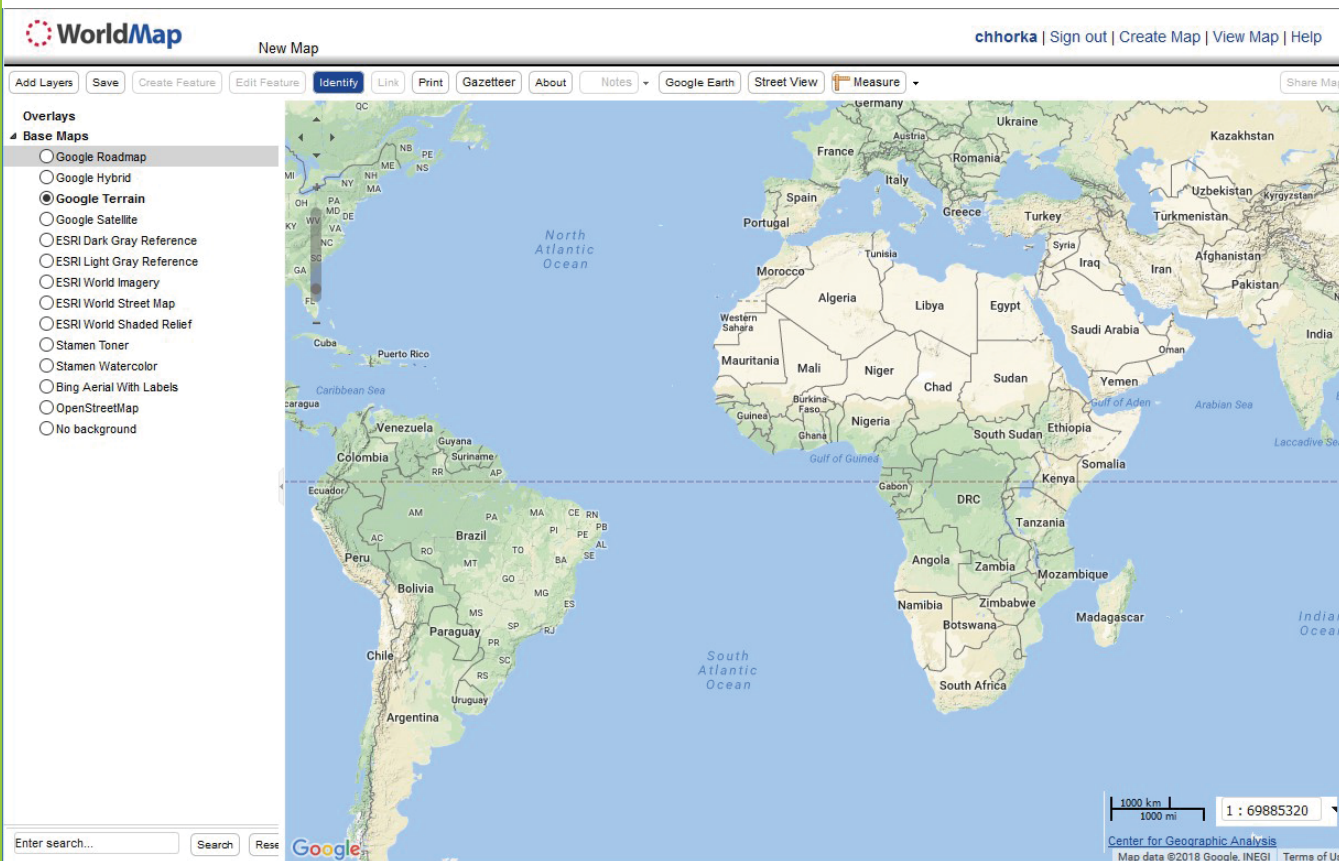
The screenshot shows the registration form for WorldMap. The form is titled "Register" and includes the following fields and elements:

- Username:** A text input field containing "Sovankongkea" (callout 3).
- Email Address:** A text input field containing "kongkea@opendevcam" (callout 4).
- Password:** A password input field with masked characters (callout 5).
- Password (Again):** A password input field with masked characters (callout 6).
- Are You Affiliated With Harvard University?** A radio button selection field with options "Yes" (selected) and "No" (callout 7).
- I Agree To The Terms And Conditions:** A checkbox field that is checked (callout 8).
- Submit:** A button to submit the form (callout 9).

At the bottom of the page, there are links for "Need Help?", "Contact Us", "Source Code", and "Report Copyright".

- CREATE A MAP

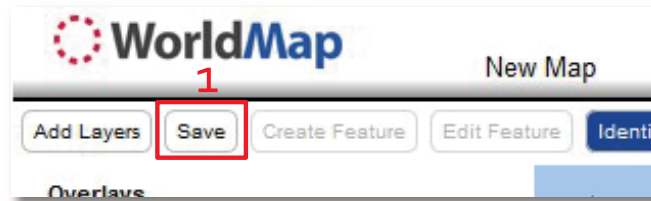
Click "Create Map" on WorldMap's homepage.



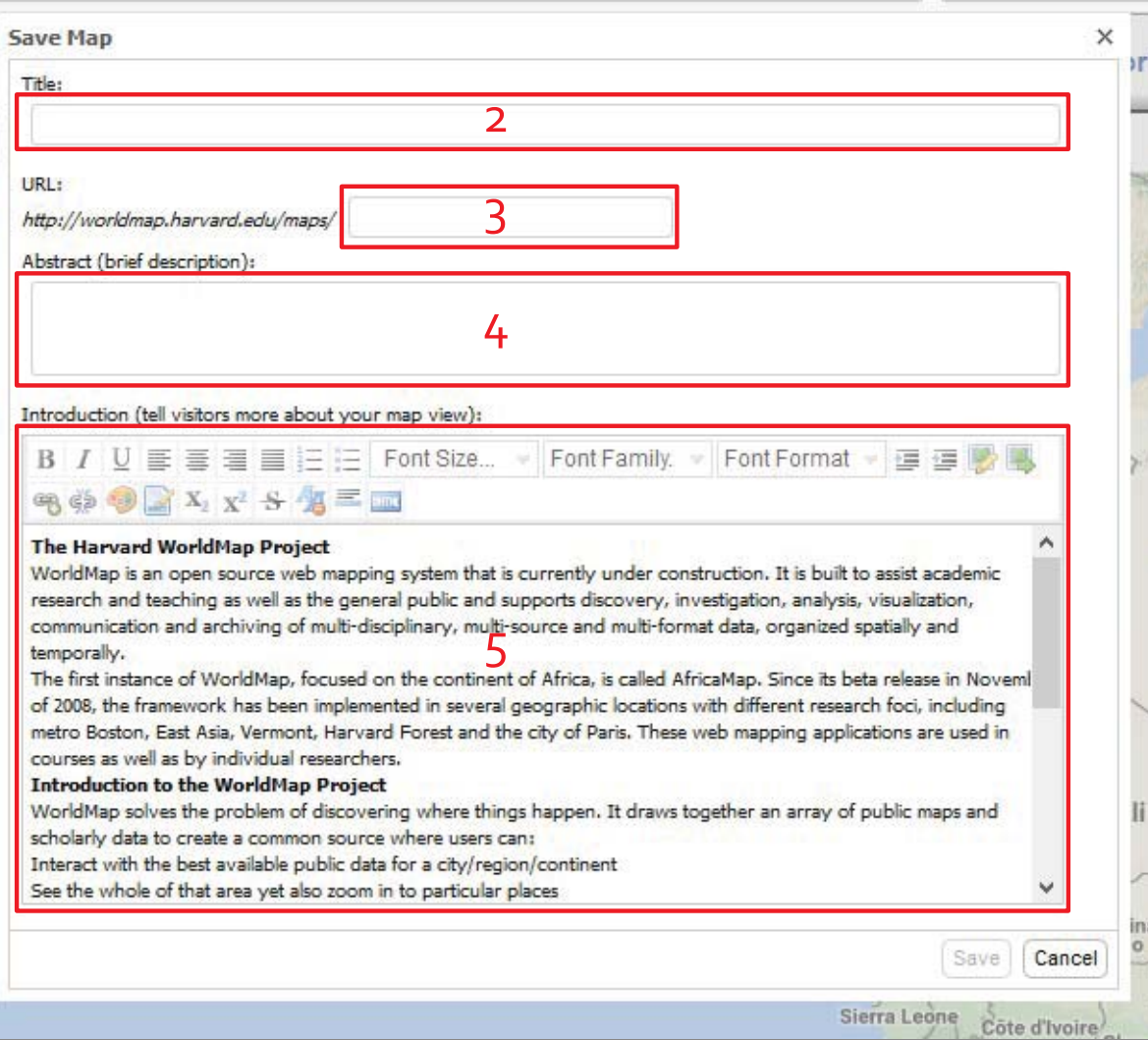
A blank map template displaying the Google Terrain base map appears. Zoom to some part of the world and start to build your map.

- SAVING YOUR MAP

1. Click "Save"



2. Type in "Title" of the map and the title will display on the header.



Save Map

Title:

URL: <http://worldmap.harvard.edu/maps/>

Abstract (brief description):

Introduction (tell visitors more about your map view):

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WorldMap is an open source web mapping system that is currently under construction. It is built to assist academic research and teaching as well as the general public and supports discovery, investigation, analysis, visualization, communication and archiving of multi-disciplinary, multi-source and multi-format data, organized spatially and temporally.
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Interact with the best available public data for a city/region/continent
See the whole of that area yet also zoom in to particular places

3. Type in "URL" to display at the end of the URL (ex: <http://worldmap.harvard.edu/alpha/maps/mytest>)

4. Type in "Abstract" to give a short description of the Map.

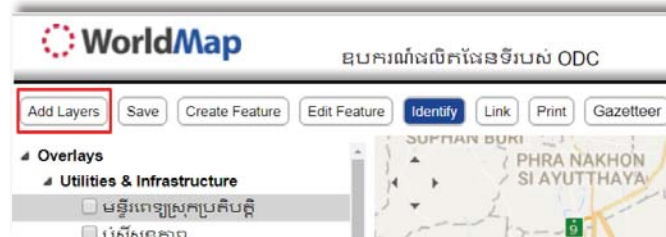
5. Type in "Introduction" for text which appears in introduction box when the site is first opened by a user or click on "About". Within the text editing area it is possible to insert photo, video, etc.

6. Click "Save"

HOW TO ADD LAYERS TO YOUR MAP

- UPLOADING MAPS

1. Click "Add Layer"
2. Click "Upload Layer"
3. Type in "Title": Give your layer a title



4. Add "Data": you can upload the data of GIS in three ways:

- Choose a shapefile (.shp part) and continuing with .dbf, .shx, .prj or Zip file contain .shp .dbf .shx. .prj
- Choose **GeoTIFF**

5. Add "SLD file": is an XML document that created by [ArcMap2SLD](#) or [QGis](#)

6. Type in "Abstract" to provide a description of the data.

7. Type in "Keywords" for related info to the data

8. Tick box in "I agree to the Terms and Conditions"

Search BETA

Search **UPLOAD LAYER** Create Layer Rectify Layer Submit a Map Service

Instructions

Select a layer data file and submit the form to begin the transfer.
 Note: A zipped shapefile must contain at least four files with the following extensions: **SHP, DBF, SHX, PRJ**.

If you are uploading an unzipped shapefile, first select the .SHP file. You will be prompted to locate the remaining component files.

Maximum allowed file size is 100 MB.Please contact us if you need to upload larger layers.

Upload Layer Data

Title:

Data:

SLD:

Abstract:

Keywords:

I agree to the [Terms and Conditions](#)

Supported Formats

Shapefile
 Zipped Shapefile
 GeoTIFF

Permissions

Who can view or download this?

Anyone
 Any registered user
 Harvard Users
 Only users who can edit

Who can edit this?

Any registered user
 Harvard Users
 Only users who can edit

Who can manage and edit this?

- UPLOADING MAPS

1. Complete the fields marked with an asterisk (*)
2. Click **“Update”**. The map will show on WorldMap.

Search BETA

Search **UPLOAD LAYER** Create Layer Rectify Layer Submit a Map Service

Upload Layer, Step 2: Edit details for elc

Please complete and submit this form, after which your layer will be added to the map.

Fields marked with an asterisk(*) are required.

***Title:**

***Date:**

Date Type:

Edition:

***Abstract:**

B I U [List Icons] Font Size... Font Family... Font Format

elc

Purpose:

Maintenance Frequency:

- EDIT EXISTING LAYERS

1. Highlight the layer that you want to edit.
2. Select the “**Edit Feature**” button from above the map.
3. Click on the feature on the map you wish edit.
4. A small pop-up of feature will appear. Click “**Edit**” on the pop-up and you will be able to edit attribute or geometry.
5. Click on “**Save**” when you finish.

***Note:** It can take up to 10 minutes for a recently edited layer’s map extent to be update.*






- CREATE LAYER

1. Click on add “**Layers**”.
2. “**Name**”: type the name of the data.
3. “**Title**”: type the title of the data to display layer name.
4. Choose data type “point, line, and polygon”.
5. Choose the projection of the data by [EPSG code](#). Ex: projection in Cambodia should be “32648”.
6. Abstract: type summary of the data.
7. Keyword: type the text that is related to the data.
8. Tick on the “I agree to the Terms and Conditions”.
9. Your empty layer will be loaded to your map ready to digitize into.

THANK YOU

For inquires and feedback,
please contact us at one of the followings:

CONTACT US

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