GUIDANCE
ICT4D

CRS faith. action. results.
CATHOLIC RELIEF SERVICES

MAPPING AND SPATIAL ANALYTICS

ArcGIS

ArcGIS offers unique capabilities and flexible licensing for applying location-based analytics to your business practices. Gain greater insights using contextual tools to visualize and analyze your data. Collaborate and share via maps, apps, and reports. ***ArcGIS Online*** *is easier to use and is a web-based application while* ***ArcGIS Pro*** *has a steeper learning curve and is a desktop (downloaded) software application. Finally, it is important to note that* ***ArcGIS Online*** *is for visualization and sharing maps while* ***ArcGIS Pro*** *is for creating static maps and conducting analysis.*

WHAT IS IT/ WHAT IT DOES?

ArcGIS by Esri provides a set of tools for visualizing, editing, managing, analyzing and sharing geographic or location data. It is a tool for creating maps used to communicate visual and spatial data that can be used for program operations, donor reports, and presentations. The core ArcGIS capability is spatial analytics, which allows users to plan and make location-based decisions according to spatial efficiencies and mapping out the best locations or paths. ArcGIS lets users create, use, and share maps from any device, providing the ability to visualize location-based data and information.Collaborate on and share customized dashboards and interactive reports.

ArcGIS is your first step toward better, smarter decision making and a more efficient organization. Just about every problem and situation has a location aspect. Unlock the power of location with one of the best technology investments you can make.

TERMINOLOGY:

ArcGIS: Product Suite

Esri: Vendor

GIS: Geographic Information Systems

Spatial Data: Data that contains location information

Dashboard: Graphical summary of various pieces of information

ArcGIS Pro: Newest premier professional desktop GIS application from Esri where you can visualize, edit, analyze your geographic data, but has a steeper learning curve

ArcGIS Online: An online, collaborative web-based GIS Platform that is good for simple mapping, story telling, sharing and basic analysis.

HOW WE USE IT

CRS uses ArcGIS to increase project efficiency, manage operations and provide visual aid for reports, progress updates and sharing our stories. Here are some examples of ArcGIS at CRS:

- CRS Laos's Food for Education project uses digital survey data portrayed on an ArcGIS map to prioritize areas for follow up action.
- In Northern and Upper East Ghana, ArcGIS' Story Maps is used to create reports for ISHINE - a project aimed to increase attendance and retention rates by improving WASH access to schools and households, and REST – a project aimed to increase timely and quality medical care to vulnerable populations especially pregnant women, newborn babies and lactating women.
- Spatial analysis was used in Madagascar and Ethiopia to help beneficiaries walk less to distribution points.
- In Central America, we use ArcGIS in the Digital Soil Mapping process, working with interdisciplinary groups to analyze soil and water information, based

on landscape relationships and local expert knowledge; the use of ArcGIS tools help us to determinate the strategies to restore agricultural landscapes and help farmers to make better decisions, such as appropriate crop per soil conditions, drought resistance, and the best location for water harvesting.

- SECC is using ArcGIS to reduce vulnerability to armed forces and conflict caused by LRA forces.
- ArcGIS was used in the Philippines to identify key infrastructures and resources to be used as possible evacuation centers in times of emergencies.

HOW MUCH DOES IT COST?

If you are interested in knowing the cost for ArcGIS Pro, please consult this link.

If you are interested in knowing the cost for ArcGIS Online, please consult this link.

Licences can be provided to CRS Programs at no cost to them through CRS' centrally paid enterprise license!

HARDWARE REQUIREMENTS FOR ARCGIS PRO

Before installing or upgrading ArcGIS Pro on a virtual or physical machine, make sure your system meets the minimum requirements to run it. Also, learn what resources are recommended to get the best performance.

- CPU Speed
  - Minimum: 2 Cores, hyperthreaded
  - Recommended: 4 Cores
  - Optimal: 10 Cores
- Platform
  - x64 with SSE2 extensions
- Memory/RAM
  - 4 GB
  - 8 GB
  - 16+ GB
- Display Properties
  - 24-bit color depth
- Screen Resolution
  - 1024x768 or higher at normal size
- Visualization Cache
  - The temporary visualization cache for ArcGIS Pro can consume up to 32 GB of space, if available, in the user-selected location. By default, the visualization cache is written to the user profile.
- Storage
  - Minimum: 32 GB of free space
  - Recommended: 32 GB or more of free space on a solid-state drive (SSD)

SUPPORTED BROWSERS FOR ARCGIS ONLINE

For the best performance with the ArcGIS Online website, use the latest version of a browser listed below. The website leverages the local storage capabilities (similar to cookies) of the browser. If this storage is disabled, the site will not function properly. Supported browsers for ArcGIS Online are: ***Google Chrome, Microsoft Edge, Internet Explorer 11, Mozilla Firefox, and Safari.***

WHERE DO I GET IT?

To request ArcGIS software (Pro and/or online) for CRS local partners, please reach out to the local ICT/IT staff of the country program/project. The ICT/IT staff shall then reach out to the ArcGIS Administrator (janeenkim.cayetano@crs.org) to request a license for partners.

The validity of the license constitutes to the program/project's end date. It is the role of the requestor to make sure about the installation of the software for the local partner's devices/laptops.

AVAILABLE TRAINING:

- **Learn ArcGIS (English)**
- **Learn ArcGIS (Español)**
- **Learn ArcGIS (Français)**

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