

Introduction to Geographic Information Systems (GIS) & Mapping Agriculture System

Training Workshop Conducted by the International Food Policy Research Institute (IFPRI)

Monday, 15 May – Thursday, 25 May 2023

Location: Department of Agriculture and Livestock (tbc)

Week 1

DAY 1 – Monday, May 15 | Time: 13:00 – 16:00

- Introduction - Basic Principles of GIS
- Definition and importance of GIS
- Basic concepts
- GIS data types and sources
- GIS software and Tools
- GIS Data Management

DAY 2 – Tuesday, May 16 | Time: 13:00 – 16:00

- Introduction to ArcGIS ArcMap
- Understanding Layouts in ArcMap
- Working with Map Elements
- Applying Symbology to Map Layers
- Creating and Managing Map Templates
- Tips and Tricks for Layout and Symbology in ArcMap

DAY 3 – Wednesday, May 17 | Time: 13:00 – 16:00

- Introduction to Choropleth Mapping
- Preparing Data for Choropleth Mapping in ArcGIS
- Creating Choropleth Maps in ArcGIS
- Analyzing Choropleth Maps

DAY 4 – Thursday, May 18 | Time: 13:00 – 16:00

- Introduction to Surveyed GPS Locations
- Understanding Google Earth
- Map to KML
- Open .KMZ file in Google Earth

DAY 5 – Friday, May 19 | Time: 13:00 – 16:00

- Basics of Spatial Data Projection
- Understanding Coordinate Systems in ArcGIS
- Projection Tools in ArcGIS
- Projecting Data in ArcGIS
- Managing Projected Data in ArcGIS

Week 2

DAY 1 – Monday, May 22 | Time: 13:00 – 16:00

- Introduction to GPS Data Integration
- Collecting and Importing GPS Data
- Managing GPS Data in ArcGIS
- Spatial Analysis with GPS Data

- Visualization and Cartography with GPS Data
- GPS Data Integration with Other Data in ArcGIS

DAY 2 – Tuesday, May 23 | Time: 13:00 – 16:00

- Understanding Census Data Formats and Structure
- Accessing and Preparing Census Data in ArcGIS
- Mapping Census Variables in ArcGIS

DAY 3 – Wednesday, May 24 | Time: 13:00 – 16:00

- Introduction to Agricultural System Mapping
- Understanding Agricultural Databases
- Overview of Agricultural System Mapping
- Explore the Agricultural system database

DAY 4 – Thursday, May 25 | Time: 13:00 – 16:00

- Agricultural system mapping (continued)
- Mapping Techniques
- Mapping Crop Distribution and Field Boundaries
- Mapping Farm Management Practices
- Analyzing and Interpreting Agricultural System Maps