

# Mapping Secondary Cities for Resiliency and Emergency Preparedness

Secondary Cities Geospatial  
Training Workshop

Pilot Project: Cusco, Peru

June 29 – July 3 2015

# WHO ARE WE?

- Office of the Geographer (GGI)
  - Uses geospatial tools to support diplomacy for security, natural disasters, and humanitarian emergencies
  - Humanitarian Information Unit of GGI
    - Promotes innovative technologies and best practices for humanitarian information management, security, and crisis response

# WHAT IS THIS PROJECT?

- **Mapping Secondary Cities for Resiliency and Emergency Preparedness**
- What are Secondary Cities?
  - Determined by population, size, function, economic status
  - Population range between 10-50% of country's largest city
  - Urban centers of governance, logistics, production
  - Unique environments
    - Rapid population growth
    - Lacking local data
  - Data for
    - Resilience, security, emergency preparedness

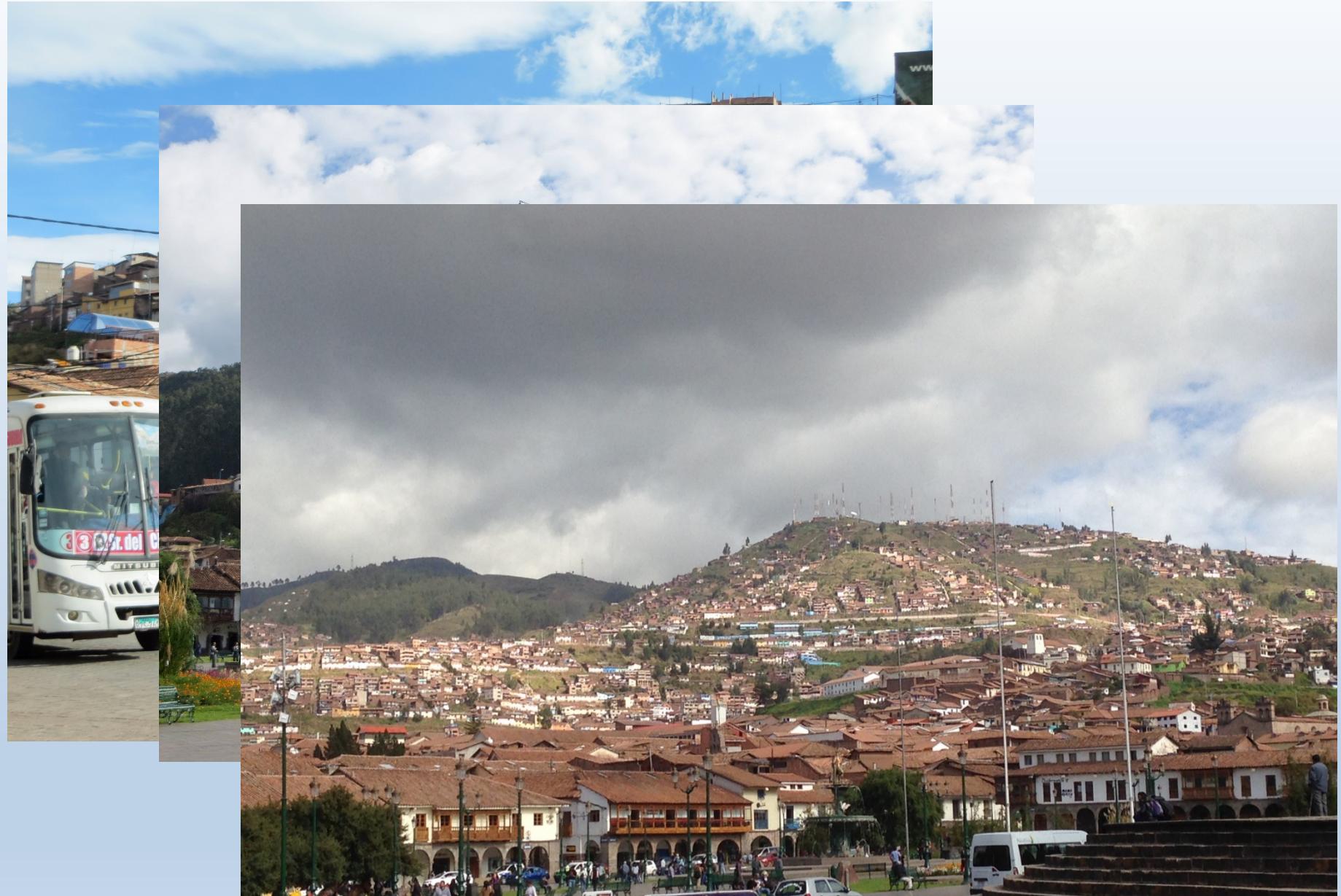
# LATIN AMERICA: The Place of Secondary Cities

- Cities are important hubs of population growth
  - Urban population is 54% of total global population
  - Megacities
    - Visit: <http://www.datainnovation.org/2015/04/visualizing-the-rise-of-megacities>
- Latin America is the most urbanized region of the world
  - 80% of the region's population lives in cities
  - Hubs of innovation
- Urbanization in Peru
  - 78.3% of total population live in cities
- Intermediate or midsized cities (<5 million) will account for largest share of urban growth in region's developing countries.

# WHAT IS THE PILOT PROJECT?

- Secondary cities in Peru
- Cusco
  - UNESCO World Heritage Site
  - Historic preservation and Tourism
  - Flood and Landslides
  - Migration hub

Insert Map of Secondary cities of Peru







# DATA GENERATION

Data generation of Human Geography thematic areas for emergency preparedness, security, and resilience:

- Language
- Land Use
- Health
- Religion
- Significant Events
- Transportation
- Water Supply
- Communications and Media
- Demographic and Human Populations
- Economy
- Education
- Social Groups
- Organizations

# WORKSHOP OBJECTIVES

Learn spatial thinking

Develop geospatial skills

Data generation for:

- Emergency preparedness
- Security
- Resilience

# WORKSHOP SCHEDULE

## Day 1:

- Overview of workshop
- Spatial thinking and GIS
- Team selection
- Exercise 1: Examining existing data and navigating ArcMap

## Day 2:

- Exercise 2: Thinking about place – creating new data
- Exercise 3: Collecting field data
- Metadata

## Day 3:

- Exercise 4: Using satellite imagery
- Project development and planning

## Day 4:

- Project implementation: In the field
- Exercise 5: Data sharing using Geonode

## Day 5:

- Project clean-up and review
- Project presentation
- Certificates presented by Embassy personnel

# WORKSHOP TOOLS

ESRI ARCGIS software

data organization and analysis

Excel/Survey123

spreadsheets and attribute data

GeoNode

data organization and sharing

Android

mapping with Smartphones using GPS

Fieldpapers

# Earn a Certificate for the Workshop

Participate

- in the Pre and Post Evaluation Survey
- in the Daily Evaluation Activities
- in the Final Workshop Project

Certificate presentation ceremony  
Friday afternoon, July 3

# POST-PROJECT ASSIGNMENT

- Cusco activity
  - Teams will continue to develop data themes and share using Geonode
  - Onsite facilitation of data generation
  - Virtual Brown Bags: Regular follow-up with Secondary Cities team
  - Earn badges: recognition for data generation
- Progress Reports
  - 3 month and 6 month milestones

# WHAT ARE THE PROJECT OUTCOMES?

- New data on priority themes as determined by partners
- Partnerships for data and on-going training
- Building local capacity in using sustainable geospatial technologies
  - Creating on-site experts
- USG support for geospatial data to inform emergency preparedness and development plans

# RESOURCES

World Urbanization Prospects:

<http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

Roberts, B.H., 2014. Managing Systems of Secondary Cities. Brussels, Belgium: Cities Alliance:

[https://www.citiesalliance.org/sites/citiesalliance.org/files/1d%20%28i%29%20-%20Managing%20Systems%20of%20Secondary%20Cities%20Book\\_low\\_res.pdf](https://www.citiesalliance.org/sites/citiesalliance.org/files/1d%20%28i%29%20-%20Managing%20Systems%20of%20Secondary%20Cities%20Book_low_res.pdf)

Urbanization in Latin America:

[http://www.atlanticcouncil.org/images/publications/20140205\\_LatAm\\_UrbanizationTwoPager.pdf](http://www.atlanticcouncil.org/images/publications/20140205_LatAm_UrbanizationTwoPager.pdf)

Climate Change Adaptation Planning in Latin American and Caribbean Cities. Final Report: Cusco, Peru:

[http://www.worldbank.org/content/dam/Worldbank/document/LAC/Climate%20Change%20Adaptation%20Planning%20for%20Cusco\\_FINAL.pdf](http://www.worldbank.org/content/dam/Worldbank/document/LAC/Climate%20Change%20Adaptation%20Planning%20for%20Cusco_FINAL.pdf)