

GIS takes India's heritage into the 21st century

Client

Indian National Trust for Art and Cultural Heritage (INTACH)

Website

www.intach.org

Location

New Delhi

Industry

Government

Organization Profile

Set up in 1984, INTACH provides ground heritage listings, prepares Detailed Project Reports (DPRs), restores art and material heritage and helps conserve Architectural, Natural and Intangible Heritage.

Solution

ArcGIS Online, ArcGIS Apps

Highlights

Esri India helped INTACH by:

- Producing the required maps
- Mapping three locations with an existing dataset
- Creating its first listing of heritage assets
- Mapping various public utilities of three cities
- Enabling an infrastructure gap analysis.

Project Summary

INTACH works for the protection and conservation of India's built and natural heritage. Its aim is to sensitize Indians about the pluralistic culture of the country, document unprotected buildings of archaeological, architectural, historic and aesthetic significance, develop heritage policies and regulations, provide expertise in the field of conservation, restoration and preservation of works of art, make legal interventions to protect India's heritage and encourage capacity building through training programs.

INTACH which has rolled out several projects felt a need for GIS in many of these initiatives. The Naturalizing Delhi and Heritage City Development and Augmentation Yojana (HRIDAY) programs in particular, showed a leaning towards GIS solutions, owing to certain challenges they were facing that were impacting their success.

INTACH deployed Esri's ArcGIS software in both these initiatives to facilitate map making and improve its overall efficiency and productivity.

Challenges

While 'Naturalizing Delhi: A Plan for Enhancing Urban Biodiversity and Habitats' was experiencing problems with the making of dynamic maps, in the case of the Heritage City Development and Augmentation Yojana (HRIDAY) project, documenting city level mapping of the three locations involved was proving to be a Herculean task.

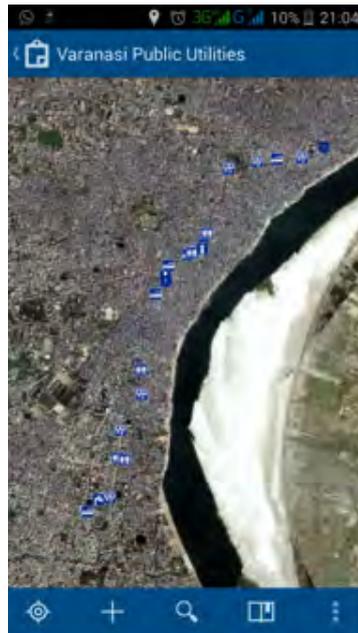
In the Naturalizing Delhi initiative, INTACH also needed the option of modifying spatial as well as attribute data, a task which was posing difficulties. Furthermore, high resolution satellite images as base maps were indispensable for such work. Keeping these factors in mind, INTACH decided to begin mapping work on Esri's ArcGIS software.

In the Heritage City Development and Augmentation Yojana (HRIDAY) project, where CAD or Photoshop were providing a limited and short term solution for city-level mapping, INTACH required a powerful system that could combine all processes such as the listing of heritage assets, riverfront regulation zones, various visualization possibilities, overlaying of vintage maps, etc.

Solution

Esri's ArcGIS software offered the functionalities needed to produce the required maps in the Naturalizing Delhi rollout. Using the geo database INTACH was able to easily edit/modify features and attribute information based on specific requirements.

With the Heritage City Development and Augmentation Yojana (HRIDAY) initiative, Esri GIS enabled INTACH to map the three locations with an existing dataset that had been created by the respective municipalities of the HRIDAY cities. Also, the readymade base maps saved time by allowing INTACH to focus more on the heritage aspect of these cities. For the very first time, INTACH was able to create a listing of heritage assets through the ArcCollector mobile app. It additionally mapped various public utilities of all three cities, for the purpose of conducting an infrastructure gap analysis.



Field Level Data Collection of a Public Utilities



Benefits

In the case of the Naturalizing Delhi initiative, the ArcGIS solution made it possible for INTACH to:

- Easily carve out small maps from the main map, when required
- Conduct spatial analysis to derive interesting insights

In the case of the HRIDAY project, INTACH was able to:

- Document all the heritage and infrastructure level aspects of the three initiatives within a short time frame of three months
- Undertake comprehensive database development which could be preserved for the future and be used again and again for various other studies
- Empower and motivate its employees to work in a more productive and efficient manner using the user-friendly ArcGIS Online and ArcCollector apps

Customer speak

“I feel great that GIS technologies are being improved and updated by Esri frequently to meet the world's emerging needs and challenges. I personally believe that solutions to most of the world's problems lie in GIS technologies. ESRI products like ArcGIS for Desktop, Arc Explorer, Arc Collector and AGOL, if used together have immense potential and scope to give wing to the ideas of researchers as well as businesses”.

-Sajid Idrisi
Conservation Biologist
Natural Heritage Division, INTACH