

Community GIS for Conservation Awareness

Experience from Nepal

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Outline:

- **Community GIS**
 - Concepts and framework
- **Case Study:**
 - Background
 - Operational framework

Where is my house?



My farm land was there and swiped by last year flood





How we can understand the GIS maps

Concept:

- **Local knowledge and multiple realities of space and environment- mental maps**
- **GIS knowledge- maps and database**
- **GIS in Society – varies in different societal context**

Concept:

- **GIS literacy**
- **Knowledge gap - GIS community and local community**
- **GIS adaptation in society**
- **Community approach**

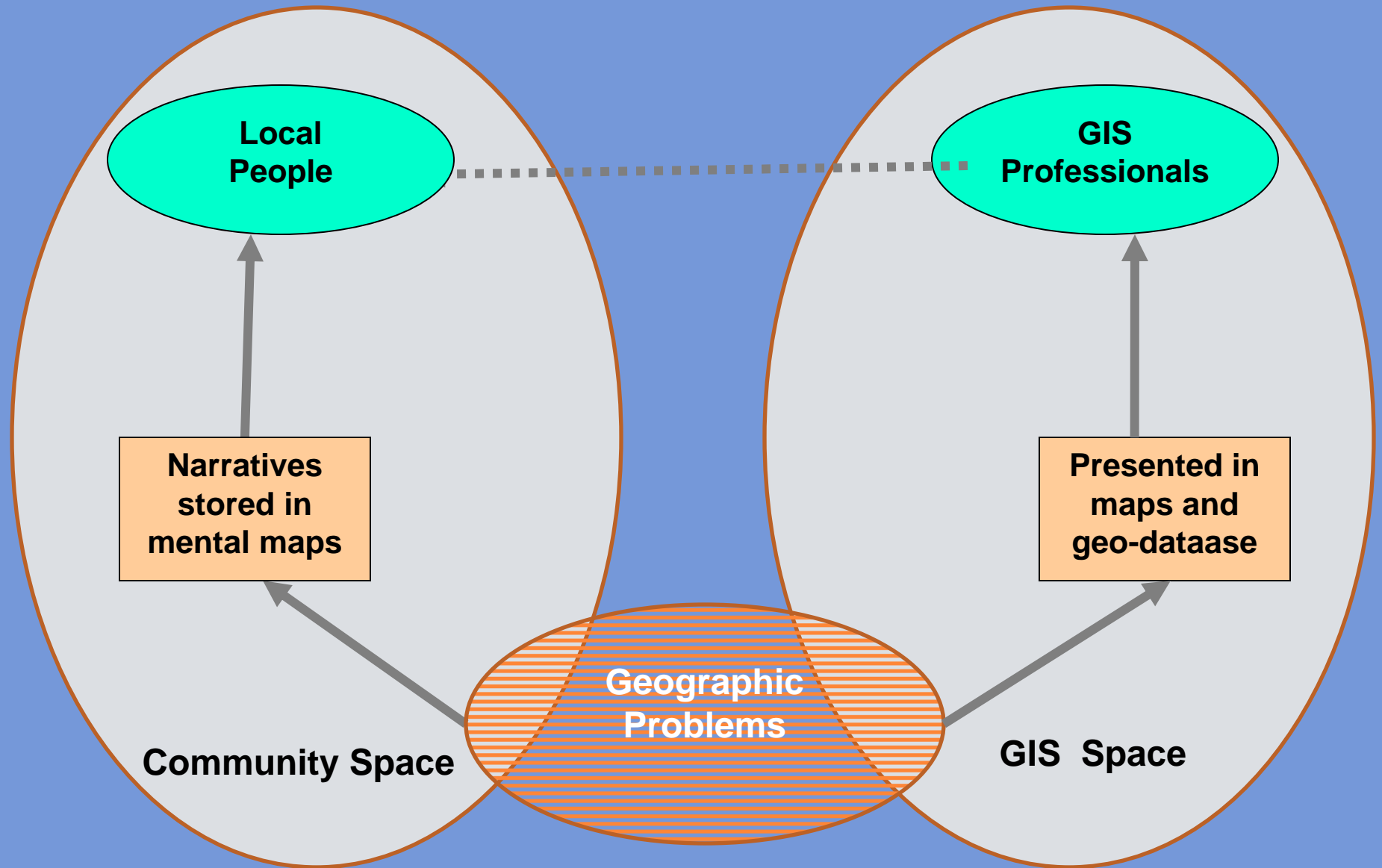
Concept:

- **Process to transfer the GIS knowledge in the society**
- **Two way communication- local community and GIS community**
- **Community GIS Center**

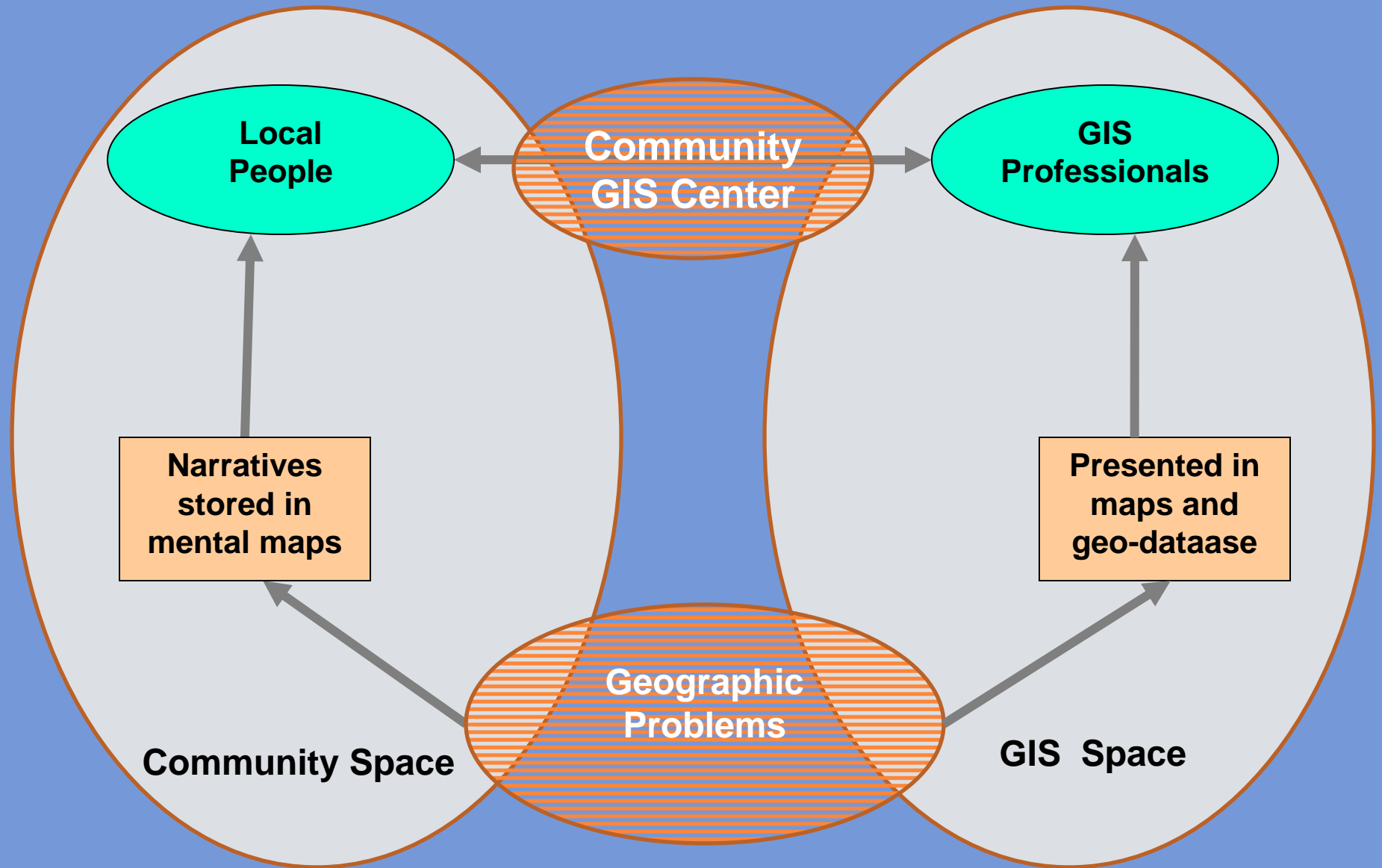
Conceptual Framework:

- **Geographic Problems**
- **Community Sphere**
 - local people, mental maps, local government authority
- **GIS Sphere**
 - GIS Professional, Geo-database, academia research institute
- **Community GIS Center**

Conceptual Framework:



Conceptual Framework:



Conceptual Framework:

- Enhance the spatial thinking of local community
- Community GIS Center: bridge the knowledge gap
- Local people and GIS professional- role and responsibility

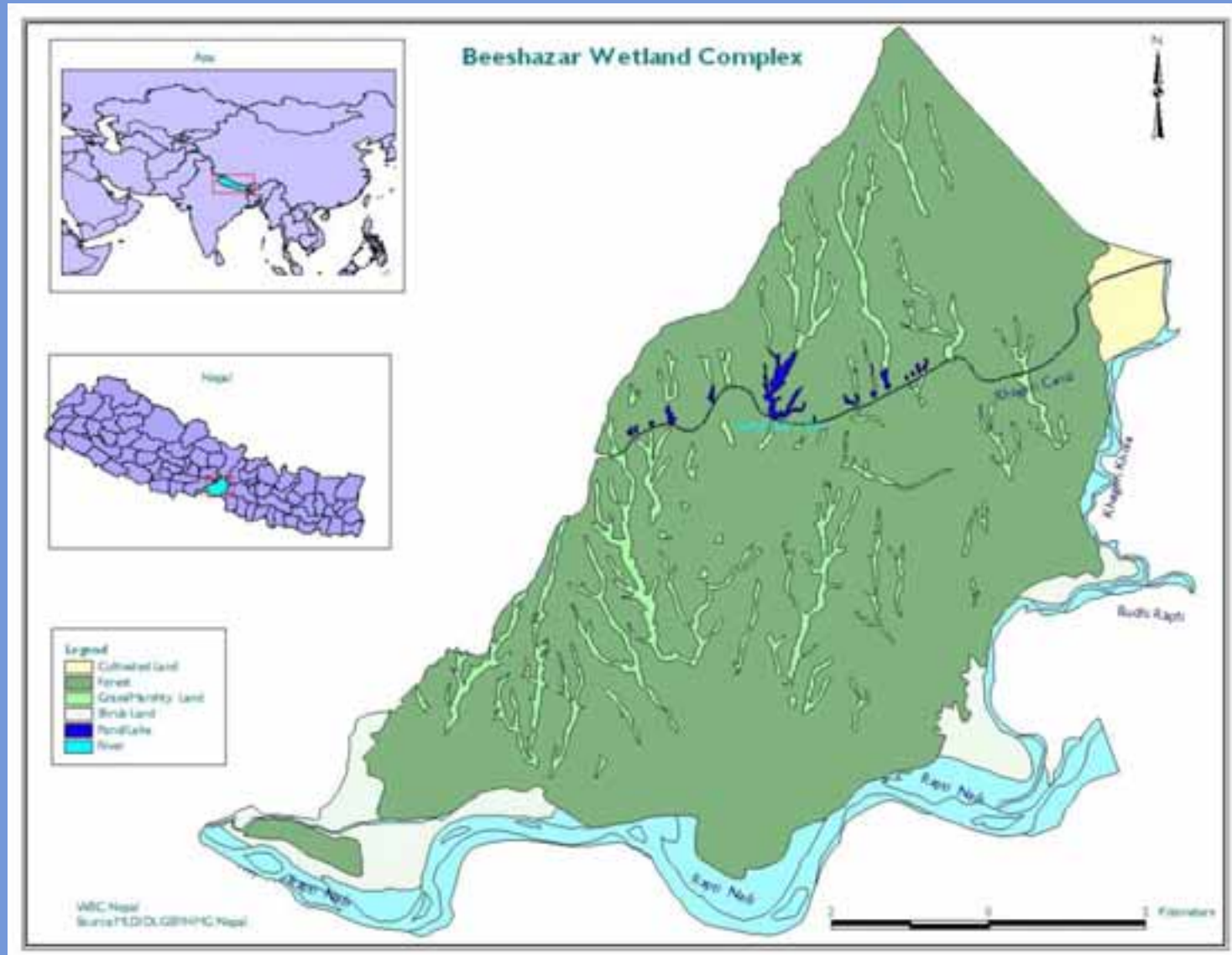
Case Study

Pilot Project

Background:

- **Decentralization- After 1990**
- **Community base development approach**
- **decision making process in local community**
- **Need of GIS application in community**
- **Biodiversity Conservation**

Program Area



Program Area:

Chitwan National Park:



- World Heritage Site
- Wildlife habitat
- Ramsar site

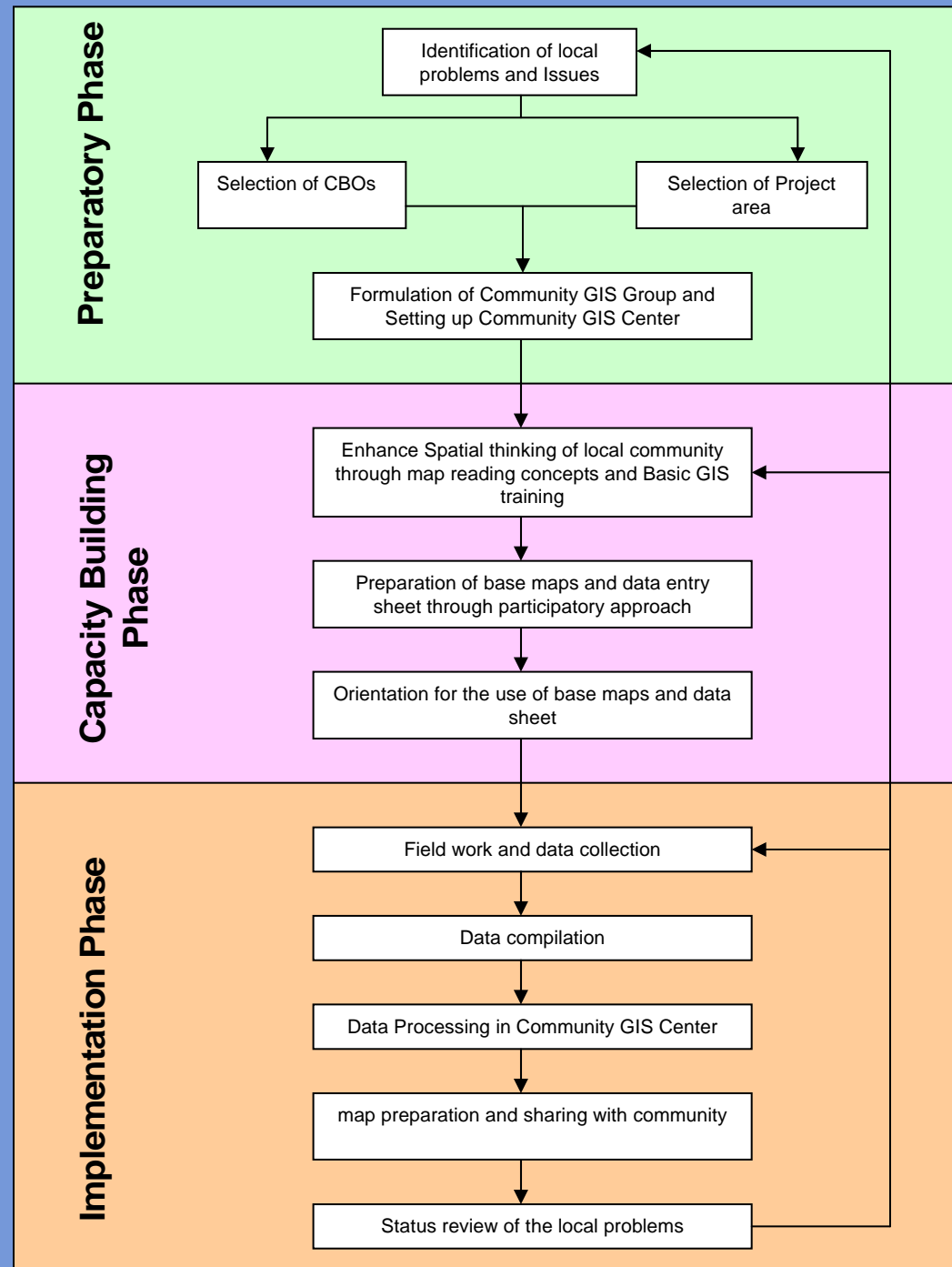
Objective:

- **Develop a community GIS tools for :**
 - **Visualization of biodiversity resource**
 - **Update biodiversity resource information by local people**
- **Support to conservation initiatives from local to national level**

Involvement:

- **GIS Sphere**
 - SCGIS Nepal
 - WBC Nepal/EGP IUCN Netherlands
 - ESRI Conservation Program
 - Planet Action/Spot Image
- **Community Sphere**
 - 30 local conservation group
 - Local people
 - Local government authority
- **Society for Community GIS Center (CGC-Chitwan)**

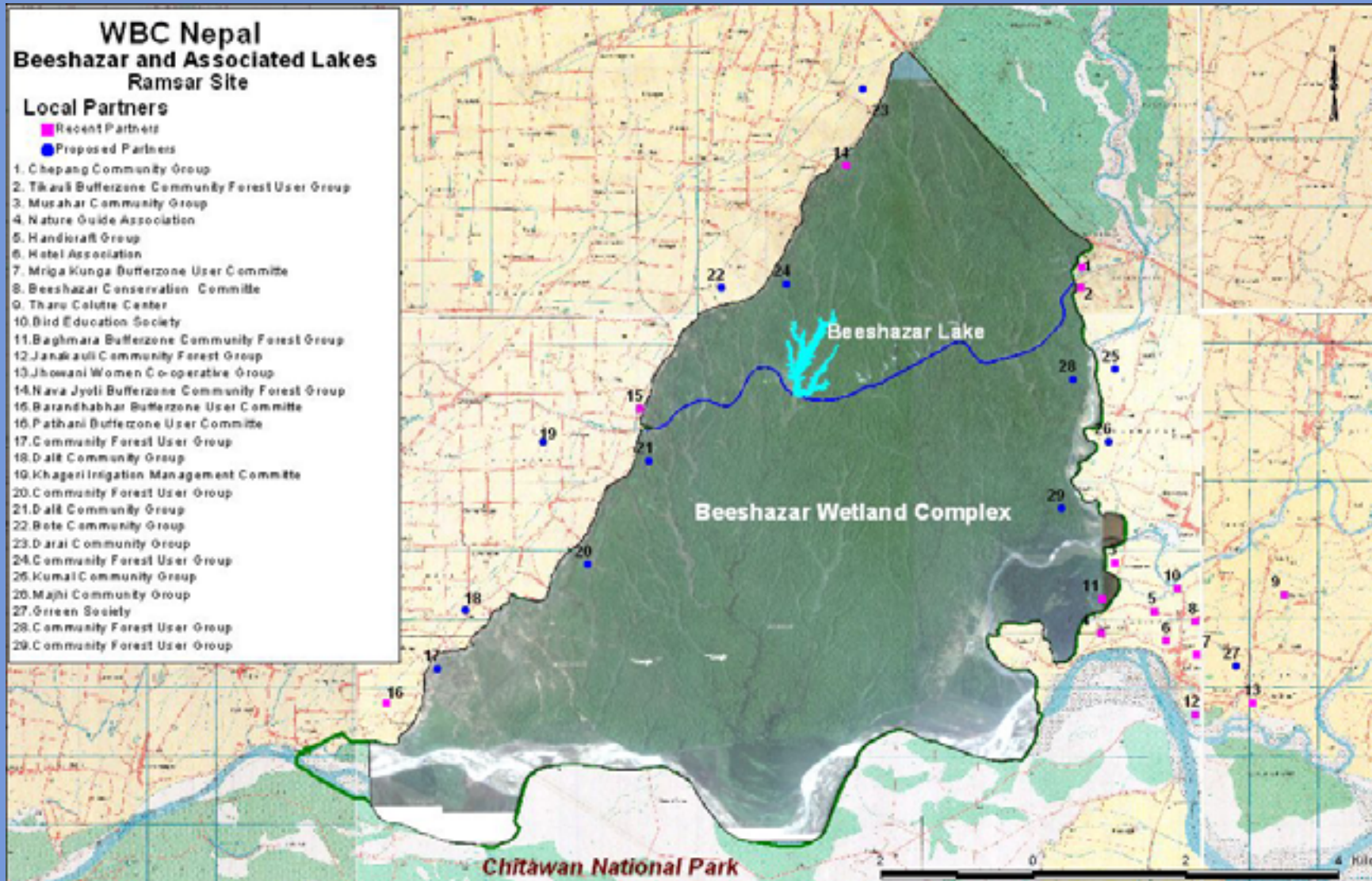
Operational Framework



Preparatory Phase:

- **Identification of local problems**
- **Selection of local organization and community group**
- **Formulation of Community GIS Group**
- **Establishment of Community GIS Center**

Community Groups:



Capacity Building:

- Collection of community maps
- map reading
- basic GIS training
- Base map preparation

Capacity Building:

- Collect of community maps



Capacity Building:



- Map reading training for nature guide



Capacity Building:



Capacity Building:

- base map preparation



- GPS Survey of wetlands

Implementation:

- Inventory of biodiversity resources
- Data compilation
- Map preparation and dissemination
- Update monthly biodiversity status



Outcomes:

- **Increased GIS literacy in Community**
- **Conversion of mental maps in GIS maps**
- **Collection of daily wildlife mobility**
- **Decision making tools local conservation plan**
- **Possibility to replicate in other national parks**