

Digitizing Kabani River Stream Networks for Kerala, India

OSM Kerala(India) Community Booster Plan

Project Introduction



- Kabani River, Kerala, India
 - Vital for local ecosystem, agriculture, and livelihoods.
 - Lack of stream network mapping hampers:
 - Community monitoring of Sustainable planning-Social literature of Maps
 - Emergency response
 - Community development & Environmental conservation-Alternative maps

Kabani River - Geographical Appraisal

Kabani Basin(1920 Sq.KM), Wayanad Plateau(2131 Sq.KM)

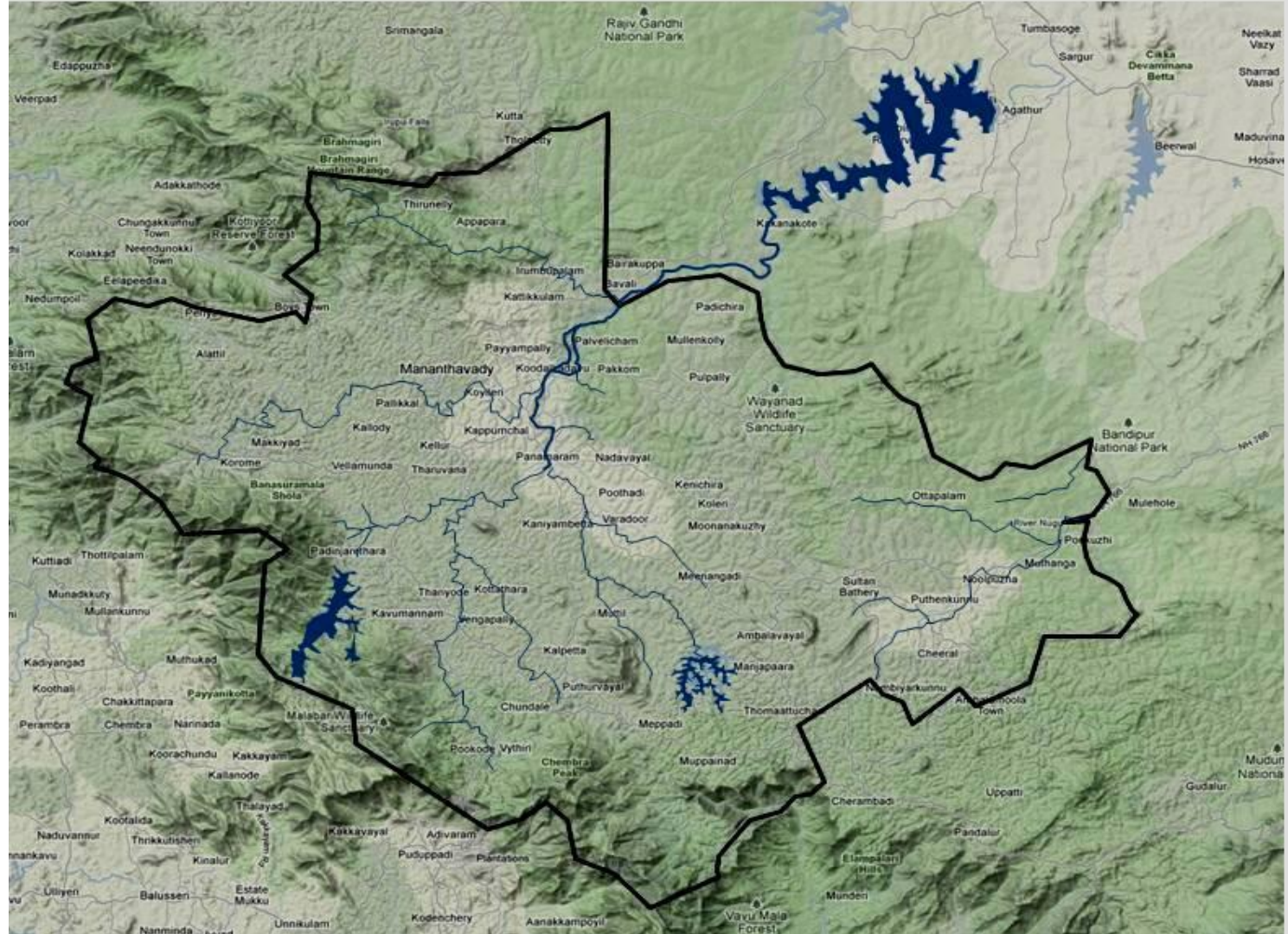
- **General slope towards east and north-east.**
- **Merges with Mysore plateau.**
- **Elevation: 900-2100 meters above MSL.**

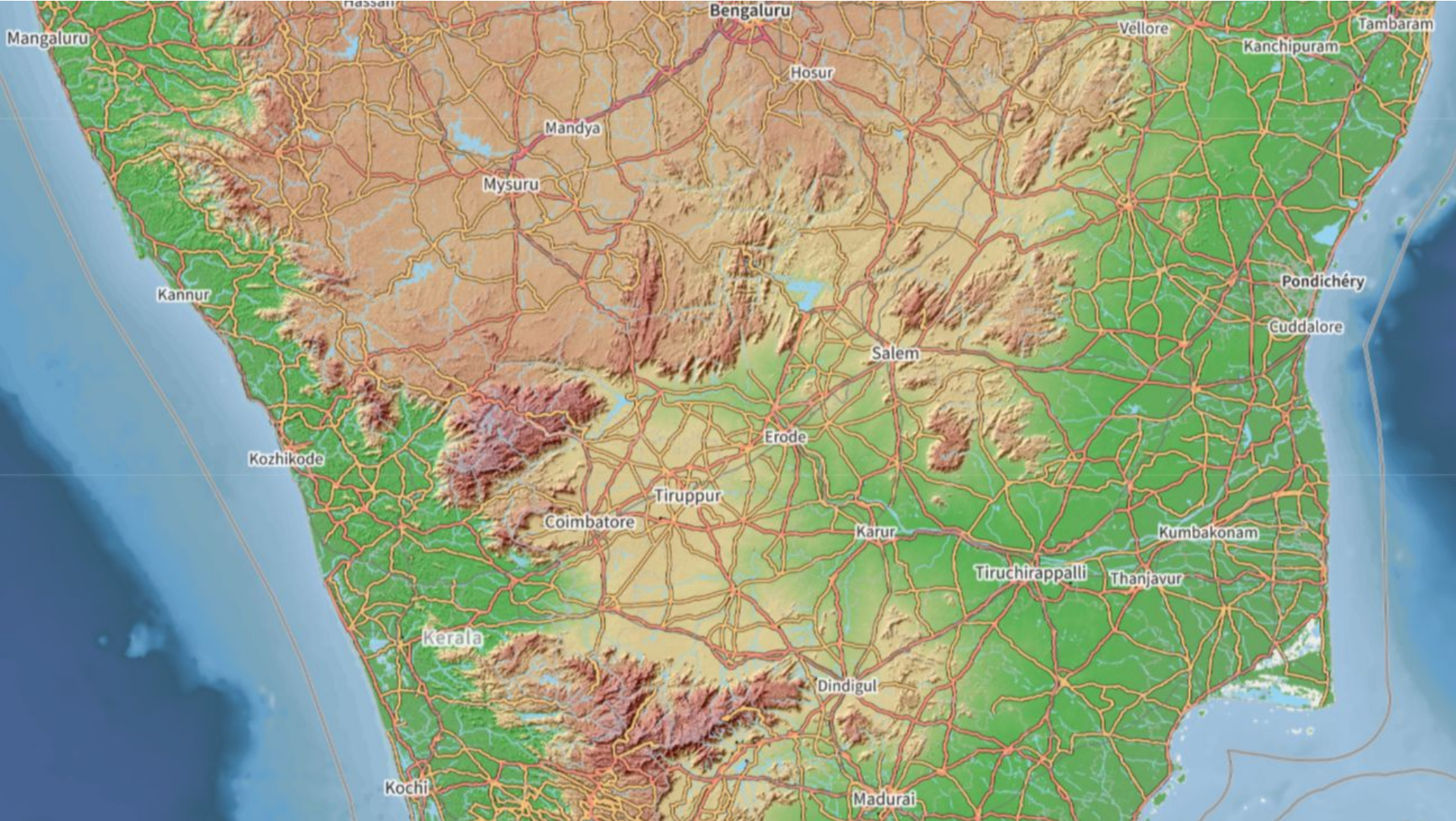
Geography:

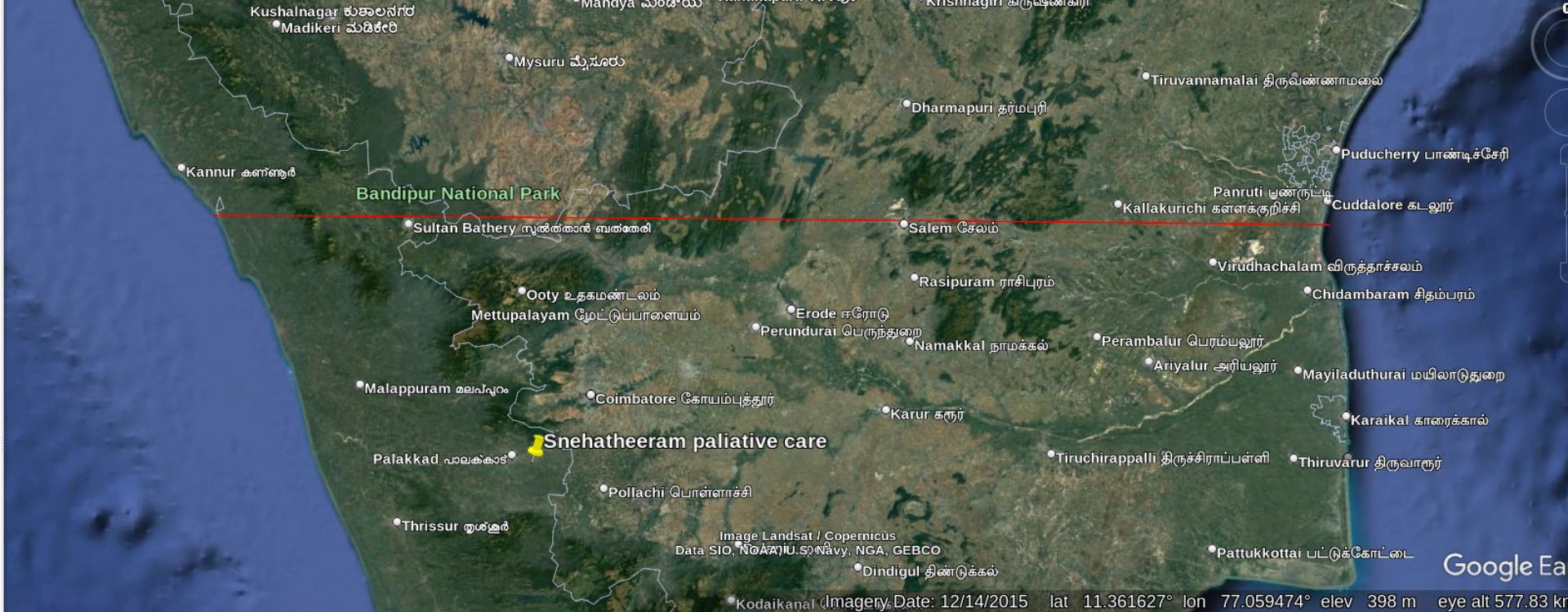
- **Deeply incised drainage over dissected plateau.**
- **Broad, flat valley floors with slopewash material (colluvium) and alluvium.**
- **Landscape includes scarp slopes, hills, undulating terrain, isolated hills, floodplains, terraces, and valley fills.**
- **Averages around 3,500 mm, 75% during the southwest monsoon.**

Land use:

- **Predominantly paddy, pepper, coffe, ginger, and plantation crops.**
- **Sizeable forest cover(896 Sq.KM)**







About the Project

- Overview:
 - The project aims to digitally map the stream networks of the Kabani River in Kerala, India.
 - This mapping is essential for urban planning, disaster management, and environmental conservation.
- Objectives:
 - Digitize the Kabani River's stream networks, ranging from 5th order.
 - Name streams based on field visits and local knowledge.
- Impact:
 - Improve local knowledge.
 - Create a free, accessible source of geographical data for various applications.
 - Encourage youth engagement and promote environmental conservation.

Expected Outcomes of Project

1: Youth Workshop

- Conduct a workshop for 20 youths to enable OSM account creation and contributions.
- Outcome:
 - Empowered youth with OSM skills.
 - OSM contributors among local youth.
 - Enhanced OSM participation in the community.

2: Stream Network Digitization

- Digitize all stream networks of Kabani River (From 5th order) in Kerala.
- Outcome:
 - Comprehensive stream network mapping.
 - Valuable geographical data for urban planning and conservation.
 - Enhanced disaster response capabilities.

Expected Outcomes of Project

3: Stream Naming

- Name streams using local knowledge and field visits.
- Outcome:
 - Stream names added to the digitized network.
 - Improved cartography and geographical understanding.
 - Community engagement in naming and preserving local features.

Benefits to the OSM Community

- Community Empowerment:
 - Encourages local youth to become OSM contributors.
 - Strengthens the local OSM community.
- Improved Data Quality:
 - Provides high-quality, validated geographical data.
 - Enhances OSM's data accuracy and reliability.
- Expanded Geographical Coverage:
 - Enhances OSM's mapping coverage in Kerala, India.
 - Offers more data for diverse mapping applications.

Benefits to the OSM Community

- Environmental Conservation:
 - Supports local environmental conservation efforts.
 - Encourages mapping and preservation of natural features.
- Youth Engagement:
 - Empowers youth through mapping training.
 - Builds a youth community of OSM contributors.
- Accessible Geographic Data:
 - Creates a free, accessible source of geographical data.
 - Benefits various applications, including urban planning and disaster response.
- Global OSM Community Impact:
 - Contributes valuable data to the global OSM database.
 - Inspires similar initiatives worldwide.

Current Status of Work

- 1. Workshop Done
- 2. Mapping in Progress
- 3. Stream Naming in Progress

Successfully conducted a workshop for 22 youths.



Enabled them to create OSM accounts and contribute to the project.





Youth are now engaged in OSM mapping.





2. Mapping in Progress...

- **Ongoing efforts to digitize the Kabani River stream networks.**
- **Comprehensive mapping of the region's geographical features.**
- **Data collection and digitization are advancing.**

3. Stream Naming in Progress...

- Community engagement in the naming is under process**

Team

Project Team:

- Comprises experts with extensive field knowledge in the Kabani River basin.
- Highly experienced in mapping projects for government and other agencies.
- Dedicated to conducting the project efficiently, accurately, and with community involvement.

Training Session for 20 Participants:

- Goal: Create a volunteering group among students and youth.
- Train 20 individuals in mapping and OSM contributions.
- Empower local youth to engage in the project.
- Promote community involvement and skill development.
- Encourage youth to become active contributors to OSM.

Gaps identified in Existing Maps

- Fragmented Water Lines:
 - Incomplete or fragmented representation of waterways.
 - Gaps in the continuity of water lines may affect accuracy.
- Fragmented Water Area:
 - Water bodies or areas might lack cohesion or completeness.
 - Gaps in water area representation may impact overall data quality.
- Missing Data Fields (Stream Order):
 - Incomplete attributes or missing data fields, such as stream order.
 - Data completeness is crucial for various analytical purposes.

Constraints

- Lack of Funds:
 - Limited financial resources for project activities.
 - Constraints in allocating funds for various project components.
- Manpower:
 - Limited availability of human resources.
 - Challenges in assembling a sufficient workforce for project tasks.
- Data and Political Conflicts:
 - Potential conflicts related to data access and sharing.
 - Political issues that might impact project progress and data availability.

Thanks....



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