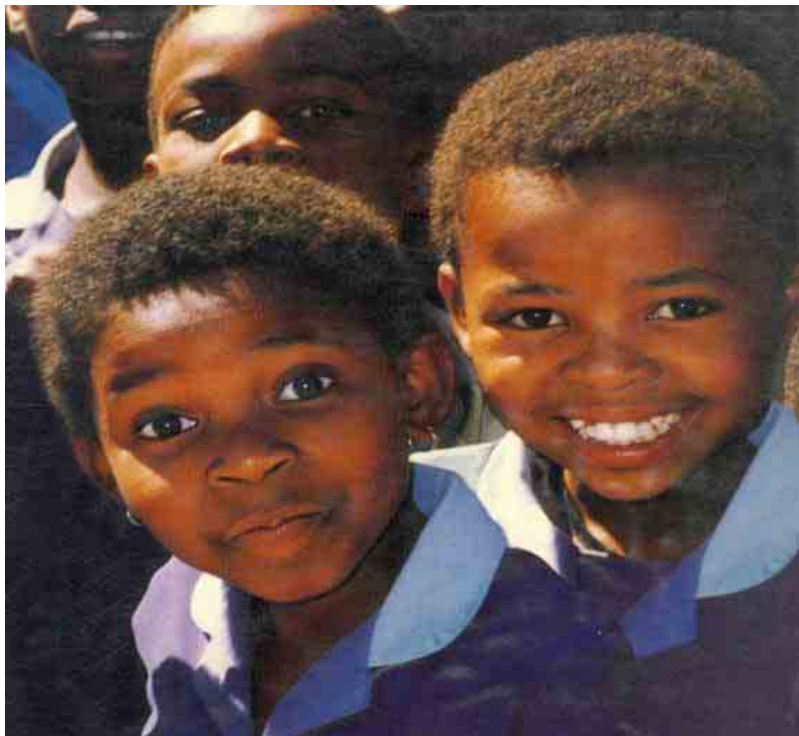


# Geospatial Capacity Building



Maneesh Prasad  
**GIS Development**

# Capacity Building

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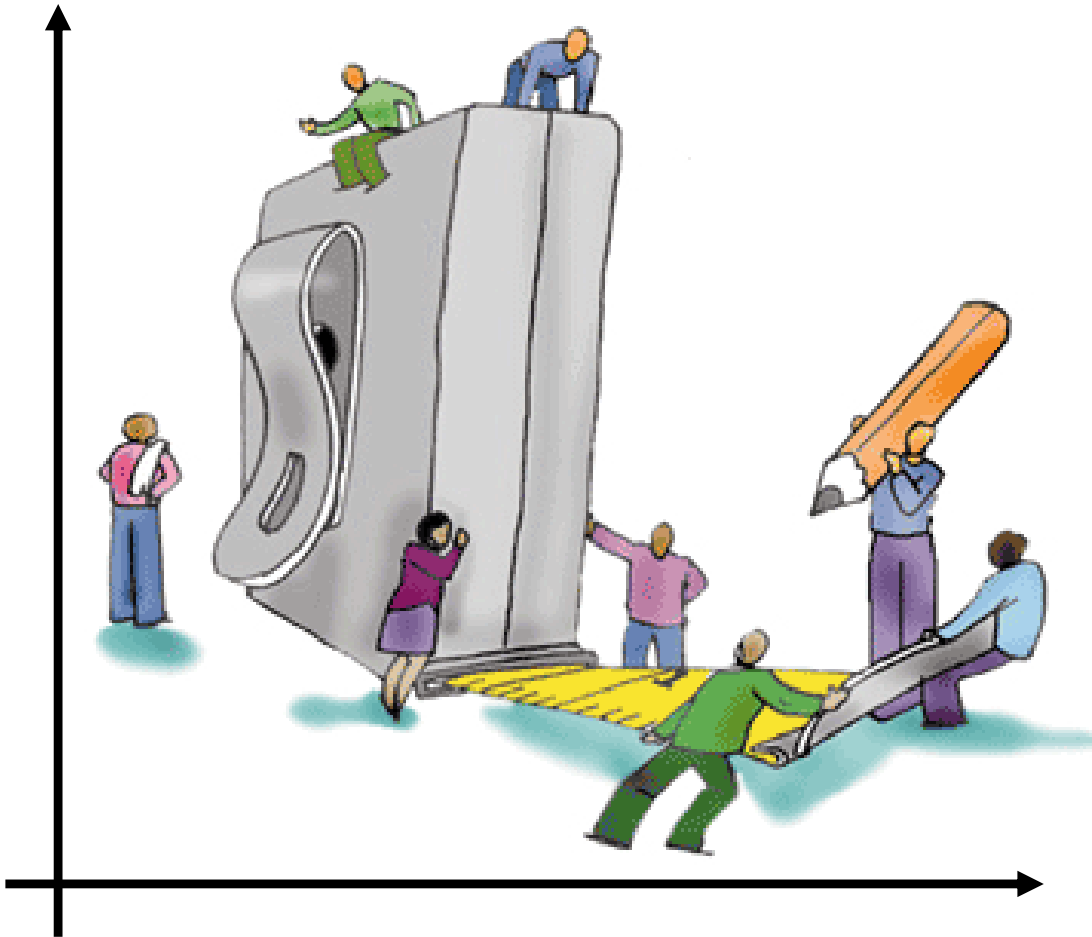
In 1991, UNDP defined 'capacity building' as the creation of an enabling environment with:

- Appropriate policy and legal frameworks
- Institutional development [including community participation]
- Human resources development &
- Strengthening of managerial systems

*...capacity building is a long-term, continuing process, in which all stakeholders participate*

# Capacity Building

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- The Govt. organisations, private sector and academia should continually build it's capacities in close coordination with each other.
- Although at times we see govt. responding to a situation with policy changes.

# World Bank Viewpoint

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- Capacity support remains fragmented
  - Designed & managed operation by operation
  - Difficult to capture cross sectoral issue
- Technical tools ineffective
  - Training and technical assistance has proved ineffective
  - Eg. NIHFWS training of health managers in GIS

*The international development community has traditionally treated public sector capacity building as a collateral objective, rather than as a goal in its own right.*

Eg. Gyandoot – IT at grassroots level

[OED Report, 2005]

# World Bank Viewpoint

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- Capacity Building - Need
  - Process requires systemic approach
  - Improved public sector performance
  - Availability of well structured private organisations & supply of skilled personals

[OED Report, 2005]



# Geospatial Capacity Building

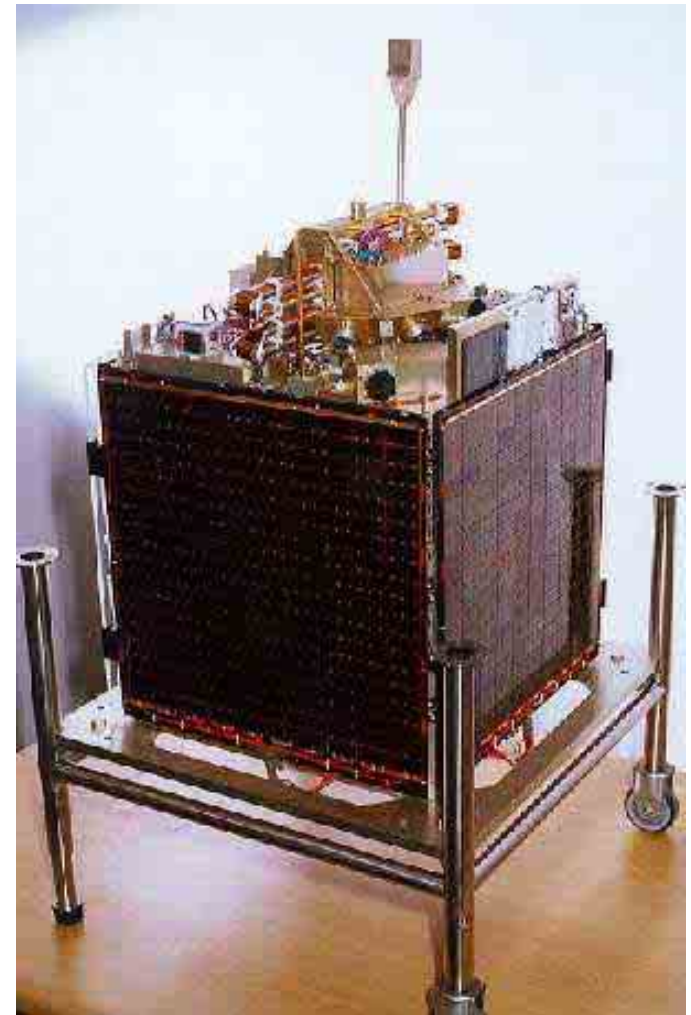
- Elements
- &
- Qs to our self



# Key Elements—Geospatial Cap Bldg

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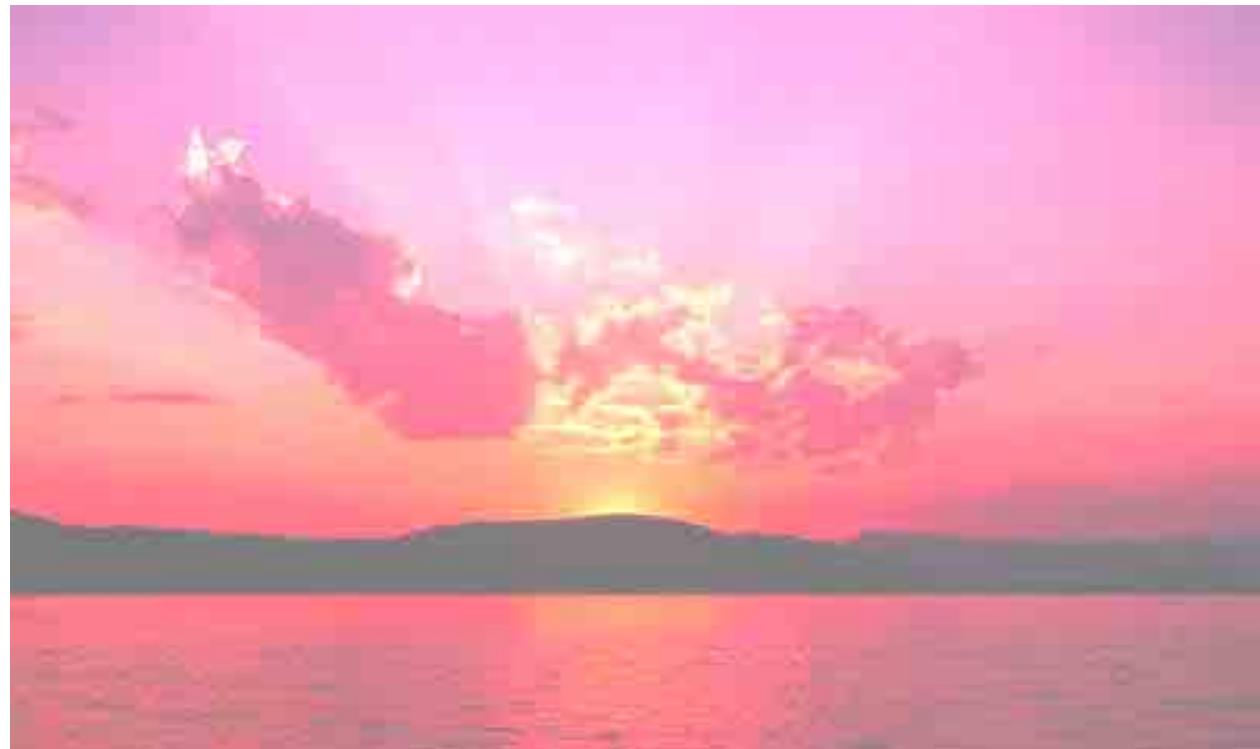
- ❑ Decision maker - awareness
- ❑ Policies
- ❑ Human resource
- ❑ Government participation
- ❑ Private sector development
- ❑ Professional associations
- ❑ Map Culture



# Decision Maker Awareness

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- ❑ It is not necessary to learn the technology
- ❑ But it's benefit should be understood and appreciated
- ❑ Appreciation in terms of encouragement in it's use



# Policies

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- Policy think tank vis-à-vis ad hoc policy making body
  - Frequency of policy updates
  - Vision Vs. need fulfillment
- Private Sector and educational setup representation in policy making
- Ability to overcome legacy issues if any
  - Does legacy hurt?

# Policies

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- Policies on
  - Surveying & Mapping
  - Remote sensing data
  - Aerial photography
  - LiDAR and ...

# Human Resource

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- Post Graduate Programmes
  - Specialisation
- Under Graduate
  - Subject in various engineering and management programmes
  - Specialization
- Vocational training
  - NIIT
- 10+2 / School
  - K12 education / elective subject / projects
  - Initiatives like 'Neighbourhood Mapping'

# Human Resource

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- HR capacity threshold
  - NIIT
  - AutoCAD to GIS
- Upper segment development
  - UNDP, CSRE Lab, IIT Mumbai >> Gram++
  - Media Lab Asia, CSDMS >> GramChitra / JT Maps



# Human Resource

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- Pyramid and it's blocks
  - Market pull for each block
  - Encouraging the block with maximum market pull
  - Induce artificial pull for the other blocks

# Human Resource

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## Orientation Programme

- Decision maker & Politicians
- Public sector sr. officials



# Government Participation

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- Land Records
- Urban Information System
  - Manage Utility
    - Water, waste water, public transport etc
  - Local SDI / National SDI
  - Representation of Stakeholders e.g Dubai / Qatar
  - Could be contracted to private segment like in Riyadh
  - Could be like a national initiative e.g NUIS in India

# Government Participation

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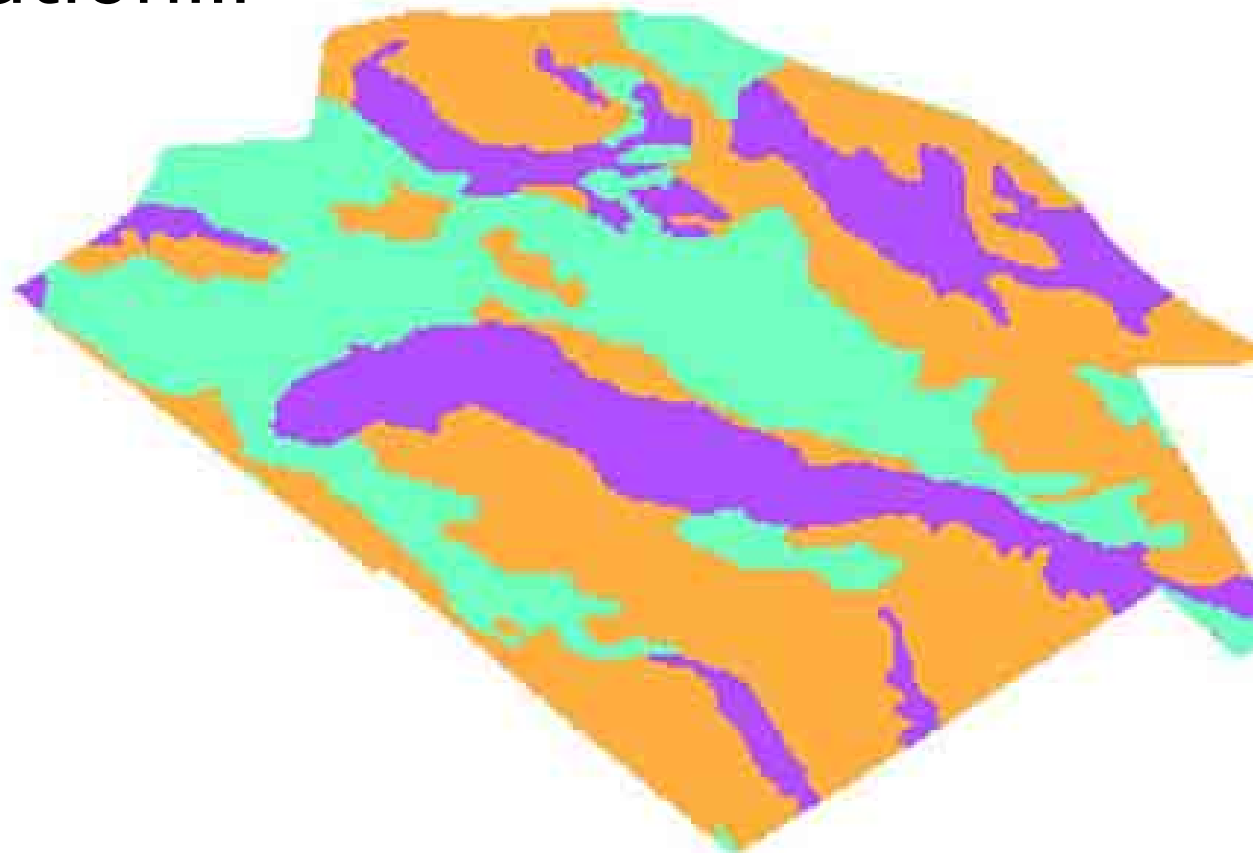
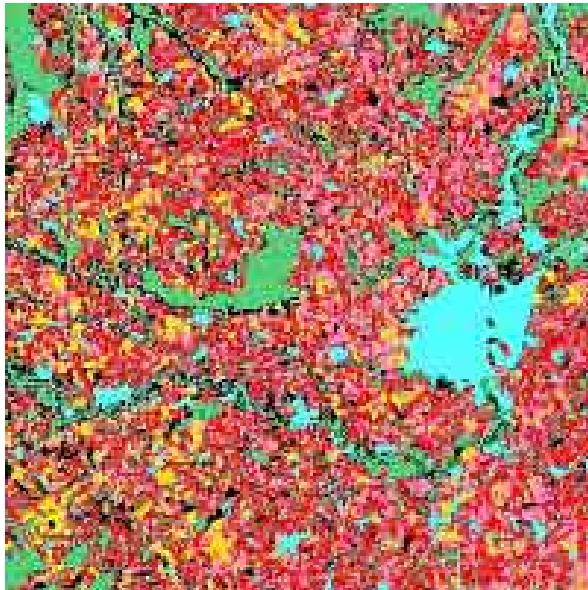
- Infrastructure
  - Power
    - Distribution
    - Transmission
  - Telecom
  - Roads & Highways
- Disaster Mgmt



# Government Participation

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- Agriculture
- Forestry & Natural Resource Mgmt
- Mineral Exploitation...



# Private Sector Development

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- Driven by business
  - Domestic
    - Government Projects
    - Private sector use of GIS
  - International
    - Competitiveness
      - Cost
      - Technology



*Any innovative product will have to test the waters in the domestic market first before it goes to the international market.*

# Professional Bodies

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- A bridge between the
  - Government and private sector
  - Private & private sector
  - Domestic and international market
  
- Policy advocacy

*It is all about team building amongst  
continuously fighting set of teams*

# Map Culture

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- ▣ Maps by default



# Qs to Our Self

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- Can we have localized capacity building for Geospatial?

or

- Will geospatial capacity will be an outcome of over national 360deg capacity building?



# Thank you

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Let us work towards a better life through the use of geospatial technologies

