REFLECTIONS ON DATA AND TECHNOLOGY USE IN COMMUNITY BASED NATURAL RESOURCE MANAGEMENT

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POWER OF DATA IS UNDERVALUED

- Lack of readiness for absorbing data and tech, especially geospatial data.

- Data/Tech Literacy is still scarce – in Civil Society and in the communities being served

- CSOs – human resource stability, project mode, lack of investments, lack of funder push…

- Other barriers to be addressed before this – literacy, familiarity with technology, inequalities in access based on gender, caste, religion etc.

- Capacity gap can be addressed through

    - Trainings on skills at different levels

    - Providing support mechanisms – platforms, products etc. that can be used directly. E.g. CLART.

    - Making more data open, generating data at scale involving local stakeholders (crowdsourcing)

    - Institutionalising the use of data in decision making. E.g. Gram Sabhas sharing status of Natural Resources.
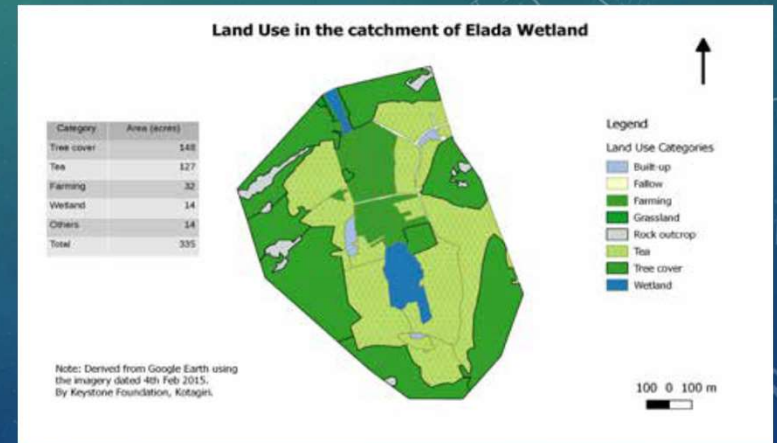
DATA -> INFO -> KNOWLEDGE -> WISDOM

- There is usually some level of local knowledge and wisdom on NRM, which may be driving some conservation/use practices.

- This may be declining over generations. Knowledge gaps, defunct practices…

- May not be uniform across the community. Gender and caste barriers may prevail.

- Can data and tech be used to strengthen/revive this?

- Can use of data in one domain, say groundwater, help kickstart demand for data on other domains as well?

- How much data is good enough for decisions? How accurate? What scale? Precautionary principle…

DATA FOR TRANSPARENCY/ACCOUNTABILITY

- Land, water and biodiversity are highly contested domains

- Lack of data on the status and changes in these natural resources leads to losses due to encroachment, diversion, deforestation etc. E.g. waterbodies, wetlands...

- Need to plug the gap with citizen science supported by Remote Sensing and other analytics.

- Tech can enable an open monitoring system to empower all stakeholders.

- Digital land records that are open, help CSOs identify waterbody extents, encroachments etc. and plan better

- Can the waterbodies census data be opened up as a geospatial database of waterbodies that civil society can build a monitoring programme around?

Land Use in the catchment of Elada Wetland

Category	Area (acres)
Tree cover	148
Tea	127
Farming	32
Wetland	14
Others	14
Total	335

Legend
Land Use Categories
- Built-up
- Fallow
- Farming
- Grassland
- Rock outcrop
- Tea
- Tree cover
- Wetland

Note: Derived from Google Earth using the imagery dated 4th Feb 2015. By Keystone Foundation, Kotagiri.

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DATA NEEDS AN ECOSYSTEM

- To serve communities in CBNRM, data and tech initiatives need
    - Domain experts
    - Data Analysts/tech developers
    - Design and Communication
    - Localisation (Not just translation, but local idioms etc.)
    - Trainers etc.
- CSOs and communities in CBNRM can't access all these capacities easily
- Need CSOs that work on different pieces of the puzzle converging to address the problem on the ground
- Need more data to be open with clear licensing, open formats etc.
- Backing this with funding to sustain these efforts beyond the project cycle
- Mainstreaming in local governance systems. E.g. Jaldoot data in gram sabhas for planning.

TECHNOLOGY USE FOR CBNRM

- Spontaneous use of technology by CSOs and communities is still not widespread.

- Tech adoption requires investment of time and resources that are scarce

- Resources are scattered – data, tools, platforms, case studies etc.

- Even with free to use tools, data – investment for time, trials needed.

- Need for an intervention around it

- Delivering at scale, but also handling diversity. Locally relevant.

- FES in collaboration with The Nature Conservancy India and Ooloi Labs is working to build a national data collective for Freshwater Ecosystem Conservation.

  - Not just putting data together, but also tools, use cases etc. so that interested people know how the data can be used.

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Natural Resource commons needs the data and tech commons to support it

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Thank you