

**CoRE Stack: Workshop – Landscape Solvability<sup>1</sup>**

**Ground floor, SIT building, IIT Delhi**

**November 5-7, 2024**



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<sup>1</sup> Credit for the term *solvability* goes to Subrata from FES, with the vision of equipping communities and community stewards with data and tools for them to “solve” for their landscapes.



A key hypothesis with the CoRE stack vision is that with the rapid advances in remote sensing and other tools for precise instrumentation of the environment, communities and other stakeholders working towards these challenges can benefit from a data and technology infrastructure that can enable them to arrive at a shared understanding of the landscape, improve transparency, respect the need for equitable allocation of welfare resources, and undertake timely and correct strategic action for socio-ecological sustainability. More specifically, these tools when put in the hands of community stewards – people belonging to local communities that have been dependent on natural resources and have historically managed their landscapes in a sustainable manner – can enable an accelerated uptake of relevant ecosystem action by communities to reverse the precarity they currently experience and prevent further exploitation and appropriation of their ecosystems by external stakeholders.

This vision is shared by many of us in the CoRE stack network who have been working in the space of ecological restoration and sustainability for many decades. FES mentors such as Community Resource Persons (CRPs) who are trained on various tools like CLART, CLM, GMT, and others; PRADAN and WASSAN have a similar structure of CRPs who assist with data collection for GIS-based planning and aquifer mapping; Gram Vikas calls them Jala Bandhus; INREM has built a network of JalDoots to monitor water quality; WELL Labs has conceptualized

the role of community hydrologists; Common Ground calls them village-level catalysts; Gram Vaani, although will lesser experience in ecological restoration and sustainability, calls them community volunteers; all acknowledge the need for communities to build their own capability to manage their landscapes, make claims to get access to relevant resources, deploy the resources more effectively and equitably than how they are used as of now, and leverage data and technology tools to do this well.

The CoRE stack team has built several new datasets and tools, and has been field testing them with several of us in the network. The key goal for this workshop is to figure out what needs to be improved and what new data and tools are needed to equip community stewards to “solve” for their landscape. To do this precisely and deeply, the workshop is structured to go deep into specific locations and examine existing gaps in the data and new requirements, ways to present this data, trigger community conversations, and build community capacity to manage their landscapes in a sustainable, resilient, and equitable manner.

**Objective of the Know Your Landscape (KYL) framework:** Provide a description for a geographical landscape unit that can help determine the kind of interventions that would be most suited in the area. This will help in several deployment contexts:

- Bottom-up, led by community stewards: It will provide a starting point to the stewards on what to nudge the community towards, which government schemes and programmes would be relevant to connect with, and on what aspects to build their own knowledge.
- CSO led: Many such interventions are donor funded, like through CSR, and the landscape description can provide a framework to design the interventions.
- Government led, through welfare schemes like NREGA: It can help with more context-sensitive resource allocation and prioritization rather than blanket supply-side directives which recommend a particular intervention template everywhere.

**Sub-objectives:**

- The process of arriving at a description should not be entirely data-driven and should involve consultations with the community to come up with a common understanding. This is necessary to guard against potential data-led errors and blind-spots, while also being able to leverage data usefully to be able to articulate the community’s observations in scientific terms to build a common language to communicate with various stakeholders.
- The process should try to maintain a distinction between symptoms and causes, for example, for a given felt need articulated by the community (potentially as a symptom), the KYL data could help provide a diagnosis (by linking with causal factors), and thereby facilitate various stakeholders to commit towards a common agreed upon strategy.
- The output should outline multiple pathways that can be a mix of supply-side and demand-side interventions. The final choice could require bringing in criteria that have not been modeled in KYL so far, like solidarity within the community, or market access, etc.

To meet these goals, the following workshop structure has been developed:

### **Day 1: Theoretical understanding**

- Invite contextual knowledge holders from diverse landscapes to get feedback on the extent to which secondary data provides an understanding of the landscape that tallies with the community's observations, and if it can help identify key problems and provide a diagnosis. This will help arrive at a gap-analysis of the limits of the current secondary data.
- Attempt to build a taxonomy to characterize landscapes in terms of their climatic conditions, terrain, geology, and soil, land-use and changes over time, and socio-economic profile, and map them to possible supply-side and demand-side intervention strategies. We call these as socio-ecological patterns.

### **Day 2: Deployment strategy**

- Use the above understanding to design a process of community consultations that can be conducted by community stewards or CSO field staff, using the data-driven descriptions as a starting point, to collect feedback and problem statements from the community to come up with a shared understanding, and identify suitable intervention strategies.
- Build a scalable method to train community stewards to conduct such consultations and to use the Commons Connect tool to create bottom-up community-led plans for improved landscape sustainability.

### **Day 3: Project planning for rollout**

- Start thinking of a project plan and review Commons Connect to initiate usage of the tools on the ground. Develop processes to convey feedback for tool improvement.

**Site locations and organizations representing each location: [[Deck and Excels](#), [QGIS projects](#)]**

S. No.	Village, Panchayat, Block, District, State. Linked documents are village descriptions from the partners	Partner	Plan name on Commons Connect for a few sites
1	<a href="#">Tal dangal village</a> , Hororaidh, Masalia, Dumka, Jharkhand	SUPPORT	<a href="#">08July Taldangal</a>
2	<a href="#">Bhimana village</a> , Pindwara, Sirohi, Rajasthan	PRADAN	
3	<a href="#">Swarupraya village</a> , Mandalgarh, Bhilwara, Rajasthan	FES	<a href="#">FES 11June</a>
4	<a href="#">Bhagbatpur village</a> ,Purunakot Block, Angul, Odisha	FES	<a href="#">FES Bhagatpur</a>
5	<a href="#">Kendupada village</a> , Boipadiguda, Koraput, Odisha	WASSAN	
6	<a href="#">Kebal village</a> , Guguldih, Lakshmiapur, Jamui, Bihar	Gram Vaani	<a href="#">18July Gidhaur</a>
7	<a href="#">Parapur village</a> , Devadurga, Raichur, Karnataka	Prarambh	
8	<a href="#">Ota purwa Village</a> , Rajnagar, Chhatarpur, Madhya pradesh	NCNF	
9	<a href="#">Jibgaon village</a> , Jibgaon GP, Sawali Block, Chandrapur District, Maharastra	TRIF	
10	<a href="#">Kumbikhari village</a> , Ramgiri GP, Boipadiguda, Koraput, Odisha	SPREAD	
11	<a href="#">Jhulani village</a> , Chipakur GP, Boipadiguda, Koraput, Odisha	Harsha Trust	

**Domain experts:** Pooja Prasad (IITD), Craig Dsouza (WELL Labs), Ajay Tannirkulam (Magasool), Sharat Singh (GIZ), Bharath M. Palavalli (Tarkam), Sruthi Krishnan (Tarkam), Arnab Paul Choudhury (Viksit Labs), Suchiradipta Bhattacharjee (IWMI), Raghuram (WRI), Himani Sharma (FES), Pratiti Priyadarshini (FES), Deborah Thomas (Living Landscapes), Simanta Mazumdar (Living Landscapes), Vivek Roy (Living Landscapes), Nitya K (ASAR)

**Development team:** IITD – Aadi, Shivani (PhD student), Ramneek (post-doc fellow), Ashima (PhD student), Dhruvi (PhD student), Varad (intern); Saarland University – Vikram (post-doc fellow); CFPT – Samitha (programme management), Taru (design researcher), and Ankit, Aman, Kapil, Ksheetiz, Shiv, Sukriti (technology team)

Workshop structure [[Activity templates for breakout groups](#), [guidelines for domain experts to facilitate breakout groups](#)]

<b>Day 1: Common introduction for session #1</b>				
Breakout #1a	Breakout #1b	Breakout #1c	Breakout #1d	Breakout #1e
Share back				
<b>Day1: Common introduction for session #2</b>				
Breakout #2a	Breakout #2b	Breakout #2c	Breakout #2d	Breakout #2e
Share back				
<b>Day 2: Common introduction for session #3</b>				
Breakout #3a	Breakout #3b	Breakout #3c	Breakout #3d	Breakout #3e
Share back				
<b>Day 2: Common introduction for session #4</b>				
Breakout #4a	Breakout #4b	Breakout #4c	Breakout #4d	Parallel 4P: Impact projection
Share back				
<b>Day 3: Common introduction for session #5, #6</b>				
Breakout #5a, #6a	Breakout #5b, #6a	Breakout #5c, #6c	Breakout #5d, #6d	Parallel 5P: Stewards sustainability
Share back				

Detailed agenda [[activity templates for breakout groups](#), [guidelines for domain experts](#)]

<b>Day 1: Theoretical understanding</b>		
9:30-10:00 am	<p><b>Welcome and introductions</b></p> <p>Goals for today:</p> <ul style="list-style-type: none"> <li>- Think about what data is important for you and the community to monitor their landscape and to determine appropriate action pathways.</li> <li>- Critically examine the data we have put together – gaps, inaccuracies, and if we can build a logic of what kind of interventions might be best suited in an area.</li> <li>- Typical deployment context in which this can be used: Most planning is first done at a strategic level to determine, for example, whether an area needs water conservation structures, or a particular equity issue needs attention, and then at a micro-planning level to determine where exactly do farmers want farm ponds or tree plantations, and whether the particular site is suitable for these interventions or not. The exercise for this day aligns more with the first step - we refer to it as landscape-level planning.</li> </ul>	<p>Lead: Aadi</p> <p><a href="#">[Presentation]</a></p>
10:00-10:30am Session #1	<p><b>Introduction to the current datasets:</b> Micro-watershed units, block units; rainfall, runoff, evapotranspiration, groundwater depletion; surface water presence; canal irrigation; cropping intensity, tree health, land-use, change pattern, farm plot boundaries; drought incidence, dry spells, aridity; drainage lines, waterbody connectivity graph; terrain, aquifer type, lithology, soil; CLART, flow accumulation; NREGA works; equity issues; SC/ST population distribution, socio-economic variables</p>	<p>Lead: <b>Shivani</b>, Dhruvi, Ashima, Raman</p> <p><a href="#">[Presentation]</a></p>
10:30-11:00am Session #1	<p><b>Brief outline of the different project sites:</b></p> <ul style="list-style-type: none"> <li>- Climatic conditions    terrain, geology, soil    land-use and changes over time    equity profile    socio-economic profile</li> <li>- Summary indicators</li> <li>- Output of resource mapping exercise at each site</li> <li>- Examples of typical patterns of socio-ecological situations</li> </ul>	<p>Lead: Craig</p> <p><a href="#">[Presentation]</a></p>

<p>11:00-12:30 pm</p> <p>Session #1</p> <p>Coffee served in breakouts</p>	<p><b>First breakout: Each group discusses 2-3 sites</b></p> <ul style="list-style-type: none"> <li>- What data do you use currently, what insights do you try to draw from this data, which sources do you access for the data, what are some gaps in the CoRE stack data. <ul style="list-style-type: none"> <li>o Distinguish between what are errors in the data vs. what kind of data is missing and should be incorporated</li> <li>o Identify if the data highlights issues already known to the community, or helps uncover new aspects that can be probed</li> <li>o Feel free to list data that can only be collected through primary on-ground data collection and consultation efforts</li> </ul> </li> </ul> <p>Some suggestions to think through data requirements are below:</p> <ul style="list-style-type: none"> <li>- What new data points relevant to the community should be instrumented, especially for which government schemes would this data be useful <ul style="list-style-type: none"> <li>o Which of these data points could potentially be obtained from secondary data but which ones will definitely require community inputs as part of an initial community consultation process</li> <li>o Which government schemes does the community currently utilize</li> </ul> </li> <li>- Data for equity: What kind of data can specifically draw attention to equity issues that persist in an area. <ul style="list-style-type: none"> <li>o This is important because arguably public funds should at the very least be deployed progressively for the least well off communities and social groups</li> </ul> </li> <li>- What are the reasons behind the specific socio-ecological status of different sites and what data can help communicate this, E.g. aspirations for socio-economic mobility, short-term gain, changing climatic conditions</li> <li>- What kind of interventions will be suitable in the area and why, and what data can help justify the interventions</li> <li>- Challenges foreseen in actioning these interventions, both supply-side and demand-side,</li> </ul>	<p>Four groups. Group constitution:</p> <ul style="list-style-type: none"> <li>- CSO leads from the sites</li> <li>- Research leads</li> <li>- Data analysts</li> </ul> <p>Ready access to data (layers on QGIS, Excel, slides, Commons Connect) to come up with graphs and analysis on the spot</p>
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	E.g. too entrenched local power elite, absent market integration	
12:30-1:30pm	<b>Share back from the breakout sessions</b>	
Session #1	Reminder about what we mean by typical patterns of socio-ecological situations	
1:30-2:30pm	Lunch	
2:30-4:00 pm	<p><b>Second breakout: Coming up with a landscape classification system and interventions suitable for each class.</b></p> <ul style="list-style-type: none"> <li>- Currently, how do you make decisions on what kind of interventions are suited in which areas, and clarity on what goals these intervention would attempt to meet</li> <li>- Are there some typical <b>patterns of socio-ecological situations</b> you feel that exist commonly and which are “solved” using some standard approaches, E.g. surplus water availability but predominantly single-cropped -&gt; water structures to increase Rabi cropping; low water availability but inequity in access to water -&gt; targeted interventions to improve equity; drought prone area -&gt; farm ponds for protective irrigation; high cropping intensity with depleting groundwater levels -&gt; judicious and equitable use of groundwater, groundwater recharge structures; etc.</li> <li>- How would a classification system be developed to identify such patterns and what kind of “solutions” would apply for these patterns <ul style="list-style-type: none"> <li>o The classification system could be hierarchical, for example, in terms of bio-physical classes -&gt; land-use classes -&gt; vulnerability classes</li> <li>o Or it could be in terms of meta water-security classes like percentage of rain-fed single-cropped area as a reflection of inequity in water access, rainfall water availability as a reflection of scope to increase cropping intensity, groundwater stress in high cropping intensity areas as a reflection of over exploitation of groundwater. These can be further intersected with socio-economic classes</li> </ul> </li> </ul>	Four groups. Group constitution: Researchers, CSO leads, and data analysts are evenly distribution
Session #2		
Coffee served in breakouts		

	<p>like agricultural areas far away from block HQ</p> <ul style="list-style-type: none"> <li>○ Feel free to include strategic primary data in building this classification system, do not constrain to only the data which is available</li> </ul> <p>- Can some underlying principles be identified for supply-side and demand-side interventions, E.g.</p> <ul style="list-style-type: none"> <li>○ Improve the use of rainwater as much as possible (make soil moisture last to increase length of growing period without the need for supplemental irrigation)</li> <li>○ Reduce the use of groundwater as much as possible (improve utilization of surface water collected through rainfall, move to drip irrigation is feasible)</li> <li>○ Improve equity (reduce use of groundwater in low-land areas and re-distribute this groundwater through lift irrigation to up-land areas to improve equity)</li> </ul>	
4:00-5:30pm	<b>Share back from the breakout sessions and discussion on next steps to arrive at a common taxonomy</b>	
Session #2		
5:30-6:00pm	Coffee break	

<b>Day 2: Deployment strategy</b>		
9:30-10:00 am	<p><b>Goal for today: Solve for the landscape with the community.</b> Building upon the insights gained in the previous day about useful data points and the classification system to discover typical socio-ecological patterns, put yourselves in the shoes of community stewards and think about how they would use these insights to engage the community and come up with a collective landscape strategy based on this shared understanding. Note that we are still talking about the first step in the planning process, i.e. landscape-level planning.</p> <p>Introduction to the envisioned community stewardship process:</p> <ul style="list-style-type: none"> <li>- Who are community stewards</li> <li>- Examples of visualizations (screenshots from Commons Connect and new mock-ups) and what</li> </ul>	<p>Lead: Taru</p> <p><a href="#">[Presentation]</a></p> <p><a href="#">[Current analysis screens]</a></p> <p><a href="#">[Text descriptions]</a></p>
Session #3		

	<p>they intend to convey in terms of highlighting an issue or pointing towards an action</p> <ul style="list-style-type: none"> <li>- Examples of simple textual site descriptions (templated and LLM assisted descriptions of the data - norms, trends, anomalies)</li> <li>- Automated text-to-speech voiceover</li> </ul>	
<p>10:00-11:30am</p> <p>Session #3</p> <p>Coffee served in breakouts</p>	<p><b>First breakout: Describing landscape through simple stories built from the data.</b> Each group improves the visualizations and descriptions and outlines the process of using them to get community feedback and build a shared strategy.</p> <ul style="list-style-type: none"> <li>- How do you describe a particular landscape and its stresses to the community <ul style="list-style-type: none"> <li>o You can use the classification system and patterns developed in the previous day to understand what data you would use to generate a story for each pattern. Such a data story could use historical data and trends to explain what events could have led to the current situation and what next steps to take</li> </ul> </li> <li>- How can the given visualizations and descriptions be improved to make them more insightful. Some principles to keep in mind: <ul style="list-style-type: none"> <li>o Show only data that is necessary to convey the point</li> <li>o Highlight data that is important but could be hard to understand</li> <li>o Show data in a way that details can be uncovered if desired, but need not be shown at the outset</li> </ul> </li> <li>- Process of how should stewards conduct these community consultations and further draw out community observations to build an improved joint understanding of the landscape between the community and the stewards <ul style="list-style-type: none"> <li>o What talking points can the stewards use to initiate discussions, E.g. “will you continue with the same cropping patterns next year? why?”</li> <li>o In our experience, even inaccurate data is useful to initiate discussions on important topics!</li> </ul> </li> </ul>	<p>Four groups. Group constitution:</p> <ul style="list-style-type: none"> <li>- CSO leads</li> <li>- Research leads</li> </ul> <p>Session design: <b>Bharath, Sruthi</b></p>

	<ul style="list-style-type: none"> <li>○ How can strategic primary data be collected as part of these consultations to inform the action strategy, E.g. “what changes in cropping patterns have happened which have worsened groundwater levels?”</li> <li>○ What local ecological knowledge exists and could be useful to build the action strategy, E.g. “looks like plantations of fruit trees can be a way forward, do you have experience with mango plantations and can maintain them well?”</li> </ul> <ul style="list-style-type: none"> <li>- How should stewards steer discussions to draw attention to equity issues in the landscape</li> <li>- Advanced - think about system modeling ideas: Can we provide pre-coded system models for different types of patterns uncovered in the classification system and facilitate community participation in what-if scenarios thinking</li> </ul>	
<p>11:30-12:30pm</p> <p>Session #3</p>	<p><b>Share back from the breakout sessions</b></p>	
<p>12:30-1:00pm</p> <p>Session #4</p>	<p><b>Introduction to interactive system for capacity building of community stewards.</b> At this time, think of community stewards more broadly, of stewards at different levels and requiring skillsets of different depths - grassroots stewards from the community, NREGA technical assistants, CSO field staff, etc.</p> <p>A methodology being developed by us:</p> <ul style="list-style-type: none"> <li>- Concept of system maps</li> <li>- Resource documents generated by LLMs based on the system maps</li> <li>- Augmented using manuals and reports of CSOs</li> <li>- Interactive question-answering with assistance of LLMs</li> <li>- Sample tasks: User asks questions to understand technical concepts and the bot responds; Different landscape scenarios are presented to a user and the bots verifies the problem diagnosis and suggested solution strategy; User asks about specific aspects to keep in mind while designing particular interventions; Bot points out specific</li> </ul>	<p>Lead: <b>Vikram</b></p> <p><a href="#">[Presentation]</a></p> <p><a href="#">[Resource documents]</a></p>

	<p>strategies that stewards should keep in mind to highlight equity considerations</p> <p>Examples of systems:</p> <ul style="list-style-type: none"> <li>- Farm-level soil and water interactions</li> <li>- Landscape-level rainwater harvesting and soil-and-water conservation</li> <li>- Groundwater aquifer systems</li> <li>- Soil degradation and natural farming</li> </ul>	
1:00-2:00pm	Lunch	
2:00-3:30pm	<p><b>Second breakout: Skills-building of stewards</b></p> <ul style="list-style-type: none"> <li>- What knowledge from across different domains is needed in your experience to be able to plan and design suitable interventions</li> <li>- What according to you are key learning gaps that community stewards have/would have</li> <li>- Review system maps and resource documents, and point out gaps and improvements</li> <li>- Run interactive question-answering for various tasks and report experiences</li> <li>- What additional topics should be included in the learning system</li> <li>- What resources, especially video resources, exist or can be developed easily to include in the learning system outputs</li> </ul>	Three to four groups based on system focus.
3:30-5:00pm	<p><b>Share back from the breakout sessions.</b> Discussion on stewardship certification and what else will be needed to operationalize the model</p>	
5:00-5:30pm	Coffee break	

#### Parallel session: Impact projection methodology

2:00-3:30pm	<ul style="list-style-type: none"> <li>- Given a particular plan of supply-side and demand-side proposals, how can a model be built to project the impact. The goal for this session is again to understand how this can provide strong evidence to the community stewards to follow-up with the panchayat or local administration and ensure that the plan is actually allocated.</li> </ul>	Lead: <b>Ramneek</b> <a href="#">[Presentation]</a>
Session #4P		
Coffee served in breakouts		

## CoRE stack: Workshop – Systematizing the use of Commons Connect

An additional half-day project planning discussion will help think through next steps and site identification with various partners.

<b>Day 3: Project planning</b>		
<p>9:30-10:00 am</p> <p>Session #5</p>	<p><b>Goal of the project – first six months:</b></p> <ul style="list-style-type: none"> <li>- Primary objective: Product improvement – what will make tools like <i>Know Your Landscape</i> and <i>Commons Connect</i> relevant to improve socio-ecological sustainability and resilience</li> <li>- Secondary objective: Improve community understanding of their landscape, build bottom-up plans with communities, facilitate follow-up for resource allocation for these plans</li> </ul> <p><b>Goal of the project – next six months:</b></p> <ul style="list-style-type: none"> <li>- Reverse the priority!</li> <li>- Build an output/outcome reporting framework</li> </ul> <p>Typical activity sequencing for each location:</p> <ul style="list-style-type: none"> <li>- Identify local project lead, community stewards</li> <li>- Organize a training workshop</li> <li>- Staggered hands-on training of stewards by lead.</li> </ul> <p>Key process elements:</p> <ul style="list-style-type: none"> <li>o Community consultations to discuss data, get feedback and strategic primary data</li> <li>o Build a landscape management strategy through the consultation</li> <li>o Based on the strategy, do site-specific demand collection, which can be met under different government schemes</li> <li>o Follow-up with panchayat and local administration for demand fulfillment</li> </ul> <ul style="list-style-type: none"> <li>- Henceforth, process undertaken independently by the stewards</li> </ul>	<p>Lead: <b>Sami, Sultan</b></p> <p><a href="#">[Presentation]</a></p> <p><a href="#">[Detailed document]</a></p> <p><a href="#">[Commons Connect]</a></p>
<p>10:00-11:30am</p> <p>Session #5</p>	<p><b>First breakout: Detailed demo of Commons Connect and new features planned to be built.</b> Each group provides feedback. Some key elements for feedback:</p> <ul style="list-style-type: none"> <li>- Site-specific screens for feasibility assessment (current, mock-ups). What additional data points to include</li> <li>- Resource mapping process. What additional data points to include</li> </ul>	<p>Three to four groups by location. Group constitution:</p> <ul style="list-style-type: none"> <li>- CSO leads</li> <li>- CoRE stack team</li> </ul>

	<ul style="list-style-type: none"> <li>- DPR. What additional data points and descriptions to include, how to improve it</li> <li>- Mock-ups for user-facing screens</li> <li>- Additional custom data collection requirements</li> <li>- Ways to link demands with specific government schemes</li> </ul> <p>How should the combination of Commons Connect and Landscape Explorer change if this site-level planning were to be done at the scale of a block</p>	
11:30-12:00pm	Coffee break	
12:00-1:00pm Session #6 Coffee served in breakouts	<p><b>Second breakout: Each group discusses a location.</b></p> <ul style="list-style-type: none"> <li>- Criteria to use to identify sites, E.g. select diverse locations, but also logistically manageable for the project lead</li> <li>- Feedback process to build, to convey observations to the design and technology teams to improve the products: Feature requests, data inconsistencies, incorrect outputs</li> </ul>	<p>Three to four groups by location. Group constitution:</p> <ul style="list-style-type: none"> <li>- CSO leads</li> <li>- CoRE stack team</li> </ul>
1:00-1:30pm Session #6	<b>Share back from the breakout sessions</b>	
1:30-2:30pm	Lunch and departure	

**Parallel session: Financial sustainability model for community stewards**

10:00-11:30am Session #5P Coffee served in breakouts	<ul style="list-style-type: none"> <li>- Developing a model for financial sustainability of the stewards will be key to scaling, so that the stewards, irrespective of whether they are embedded in CSOs or working independently or in local associations, can be assured of a strong income to build the socio-ecological sustainability of their landscapes.</li> </ul>	Lead: <b>Vijay</b>
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**Parallel session: Strategic communication**

12:00-1:00pm Session #6P Coffee served in breakouts	<ul style="list-style-type: none"> <li>- Finding ways to convert data into stories for strategic communication.</li> </ul>	Lead: <b>Deborah</b>
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## About the CoRE stack

The [CoRE Stack](#) (Commoning for Resilience and Equality) is being architected as a digital public infrastructure consisting of datasets, pre-computed landscape level indicators, and tools that can be used by rural communities and other stakeholders to improve the sustainability and resilience of their local landscapes. It will enable innovators to build upon and contribute their own datasets, use APIs for third-party apps, and track and monitor socio-ecological sustainability through a systems approach. The CoRE stack broadly consists of four layers. First, using ML on satellite imagery we are producing novel geo-spatial layers on changes over the years in cropping intensity, water-table levels, health of waterbodies, forests and plantations, and welfare fund allocation, among others. Second, these will help generate rich analytics on diverse socio-ecological indicators, including fairness and equity in resource distribution. Third, a flagship tool, Commons Connect, is being built as a participatory platform using the datasets and indicators to enable communities to learn and understand more about their landscape, report new insights, and plan for sustainable management of natural resources including groundwater and forests. Fourth, tools such as Common Connect will have relevant plugs to integrate their outputs, including community demands, for funding under government programmes, and in the future, market driven initiatives as well.

The CoRE Stack is being developed in a collaborative co-creation manner with a large number of partners who are bringing their respective expertise together, unified by a common vision to find effective ways to leverage data and technology for climate action and environmental sustainability. The collaboration network includes IIT Delhi, WELL Labs, FES, WASSAN, PRADAN, Magasool, Viksit Labs, Saarland University, CommonsTech Foundation, Gram Vaani, SUPPORT, Tarkam, ATREE, Say Trees, among others, and has been supported financially by the Rainmatter Foundation, GIZ, Common Ground, Rohini Nilekani Philanthropies, Tower Research, Hellermann Tyton, Tarides, IIT Delhi, and R Systems.

Past workshops organized / facilitated by the CoRE stack for vision alignment, discovery of use-cases, solution methodology, and feedback:

- Kickoff! June 2023. With IITD, FES, Magasool, GIZ, Gram Vaani: [Presentations, notes](#)
- Thinking in terms of use-cases. Dec 2023. Workshop lead - CEEW: [Link](#)
- [Research to Impact Collaborative](#), as part of the ACM COMPASS conference, July 2024
- Vision alignment. [Commons Convening](#), Sept 2024: [Agenda](#)