Issues, Challenges and Solutions for Data Access and Sharing

	Issues	Challenges	Solutions	Status
Search	Archives search over diversity of mission archives	Linking to archives not always possible. In situ data hard to find ... Who has the data?	Add archive links to COVE tool and connect with archives over time. In situ Database.	Currently linked to Landsat, SPOT, Pleaides, Radarsat-2 (some). Working TSX, TDX, RapidEye. Others???
Access	Easy access to data	Data policies vary considerably and include costs or other restrictions. In situ data often restricted.	Flexible policies from restricted and commercial providers to provide evaluation data for JECAM	Many agencies have provided evaluation data for JECAM, without cost. Finding in situ data to match space data is difficult.
Store	Large datasets require large storage and high Internet bandwidth	Cost and complexity of storage systems and slow Internet	Develop a common JECAM site for storing data and for downloading archived data.	SEO working on several prototypes for common data storage (FAO Pilot Study, Asia-Rice).
Process	Complex image processing tools with slow performance	Cost of computing systems and slow Internet	Develop a common JECAM site for processing data using cloud-based computing. Ability to share SAR methods.	SEO working on several prototypes for running processing tools (Asia-Rice).
Share	Use of data across many users to share processing and analysis ideas	User license agreements restrict sharing	Develop a common JECAM user license agreement with approved users	Need to develop common user agreements for JECAM data to support scientists and data hosting
Use	Need for simple data analysis tools for local decision-making	Developing nations lack computing and Internet infrastructure and science knowledge	Data Cubes, Earth Engine, Open Source Software, GEONETCAST	SEO prototyping Data Cube for Tanzania and developing a common Earth Engine interface.

Open Data Sharing Solutions

- **SEARCH** ... No issues for space ... More issues for insitu. Who to contact?
- **ACCESS** ... Some issues ... Many commercial providers have given JECAM evaluation data and Agencies have provided research projects for other data. Access to insitu data in areas of space data are often difficult.
- **STORAGE** ... Large image files can be an issue for local servers. Would there be a desire for a cloud-based storage tool for JECAM? How might we fund this in the long-term? Any thoughts on a site for a protoype?
- **PROCESSING** ... Similar to the storage problem, we need to consider solutions that utilize cloud-based computers with fast processing capabilities. Do we need this for JECAM?
- **SHARE** ... This is an issue in JECAM and across CEOS. Can we develop a JECAM Data Policy agreement that defines the use of datasets for JECAM scientists and the restrictions for distribution and reporting? Can we also include provisions to allow hosting this data on cloud-based servers by 3rd-party providers, such as the SEO (my office)? How about Radarsat-2, TerraSAR-X or SPOT/Pleaides?
- **USE** ... How can we help nations with limited access and infrastructure use agriculture data? Do you agree that Data Cubes, Google Earth Engine and other common tools (i.e,, COVE) are good solutions? Common hosting.