**Proposal for New LPV Focus Area - Vegetation Indices –Tomoaki/Marco**

(link to slides - [**http://tinyurl.com/gvwzru9**](http://tinyurl.com/gvwzru9))

Proxy for vegetation – used for veg cover, dynamics, physiological status

NASA producing these for 15 years with MODIS and NOAA JPSS now also starting to produce VI, EVI

MR: not all VIs are created equal

What is VI providing? NDVI (ala CJT) is a correlate for foliage amount and chlorophyll absorption, and EVI is a correlate for LAI.

JPSS quality requirements table

VI not an ECV, however WMO considers NDVI a key parameter

Validation activities

In situ tower

* product intercomparison
* BSRN
* AERONET
* trying to find a way to biophysically validate VI using FluxNet measurements

In situ refl measurements (question – what is the ground truth?)

Global validation protocols

Coordination with phenology

Ferran why do we need to validate? NDVI a combination of SR bands, that have already been validated. Sees overlap w existing FAs. Also not an ECV. Not a biophysical variable.

MR: Phenology not an ECV, LST was not an ECV until recently.

Discussion: Where does it fit in with SR and Phenology, need to be careful how it’s used and validated. VI an important variable probably the most widely used RS satellite product. We have a SR task group w/in WGCV, not within LPV.

Plan to combine VI with Phenology within one focus area that we will call VI-based products (?).

How do you intercompare VIs from different sensors when they have different bandwidths? TM argues that the comparison is of the trends, not the values. SF and FG suggest it cannot be validated. Copernicus makes intercomparisons, but not comparisons with in situ measurements. Satellite products can be intercompared, but not validated with ground references. Validation with this variable is evolving and it is possible. Agricultural yield estimation is based on NDVI and not SR. There are many downstream products in the application world that use NDVI. What is LPVs role in QC of this product?

SP: Why should we have validation of VI, we already have phenology.

MR: Error that propagates into the estimate of phenology metrics should be put within the constraints of the phenology group. But they are not looking at it, they are just looking at the timing. We are suggesting that VI be addressed under the phenology heading more explicitly, because it isn’t right now.

FG: Should LPV take this on just because VIs are popular?

LPV should provide guidelines for proper uses of VI for specific applications. We are adding atmos corr, adding brdf correction, phenology group not paying attention. If not us then who? SP suggests a case study. Tomoaki counters that it’s not a short term problem. Need a consensus. FG – Start with an intercomparison exercise. FC – we already did this in Copernicus, Vegetation MODIS and AVHRR.

MR: What is the consensus? One of myfdd objectives as chair, to reach out to operational agencies, who deem some land products to be of high priority for their missions. VI is one of them, for NASA, NOAA, and USGS too. This is something we want to carry over for the next 3 years.

We need a consistent group that is going to be looking at this, starting with an intercomparison, and exploring new methods for validating VIs and coming up with an approach that is compatible to that of other variables.

Accepted.