

RECOVERY OBSERVATORY

Thématique : Occupation du sol

Etapes/activités	Date debut	Date fin	Fréquence mise à jour	Besoin en images/ pré-requis
1. Ligne de base OCS	Novembre 2017	Mai 2018	5 ans ?	Photos aériennes 2014 50 cm (deja disponibles)
2. Ciblage des hotspots	Décembre 2017	Fin Décembre 2017 ?	5 ans	<ul style="list-style-type: none">- Modèles hydro et Risques inondation- Conditions de la végétation- Priorités des partenaires (PNUD, MDE, MARNDR, CIAT)
3. Validation OCS 2014 dans les hotspots	Février 2018	Février 2018	Après chaque mise à jour	
4. Mise à jour dans les hotspots	Mars 2018	Mai 2018	1 an et après chaque événement extrême	Pléiade 70 cm ?
5. Mise à jour hors des hotspots	Juin 2018	Août 2018	1 an	Spots 5m ou 2.5 m ? RapidEye 5m ?

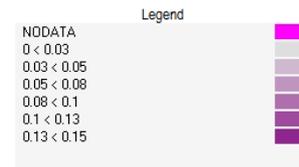
HISTORICAL GLOBAL VARIABILITY

Extents: -74.6443259609859 , 17.9364614198735 -- -72.7481423019141 , 19.0171938338335



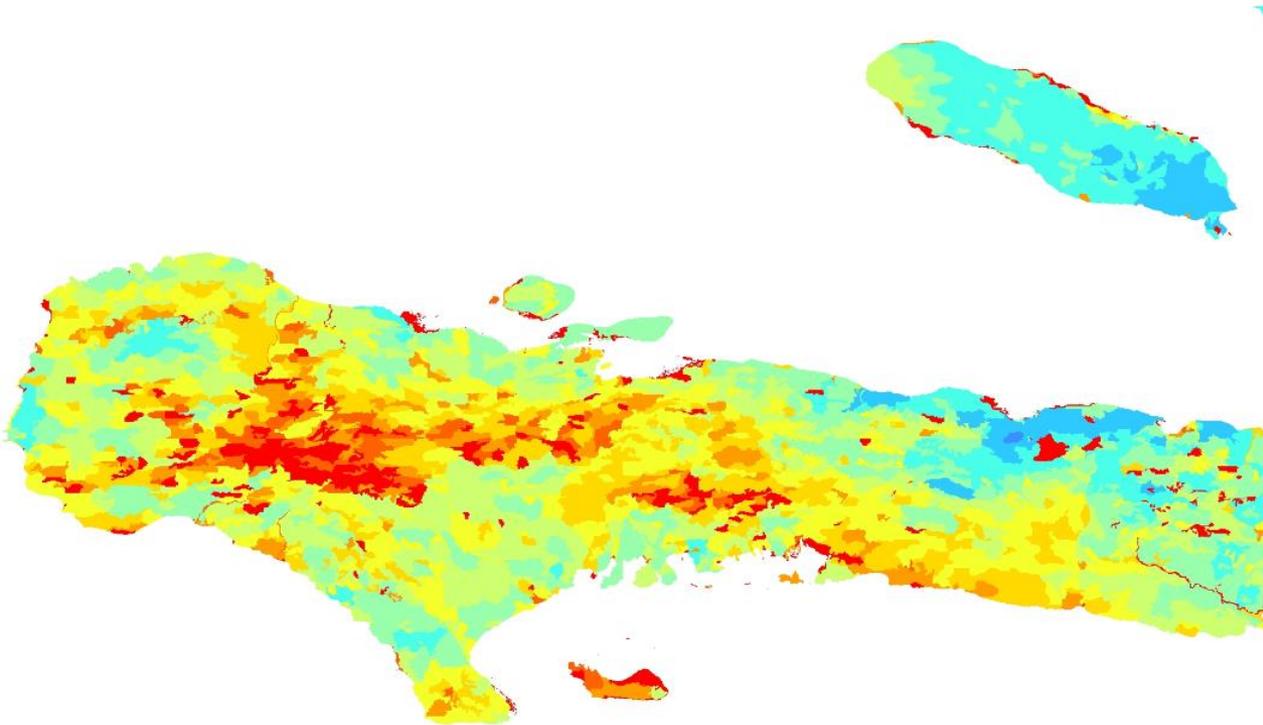
The map shows the "local standard deviation of the index" calculated over the entire time series. Dark purple chrome areas identify high variability, while lighter chrome areas identify more uniform conditions. High values can be a symptom of variable use of the area over the year (for example seasonal crops) or even a symptom of a change on the multi-year trend.

USED INDEX (StdDevAll): the standard deviation of the average values (at map unit level) calculated over the entire time series. For each map unit and for each period/image, the average of the index for a single period, inside the map unit, is calculated. Then, the index displayed for each map unit the standard deviation of all the "single period averages".



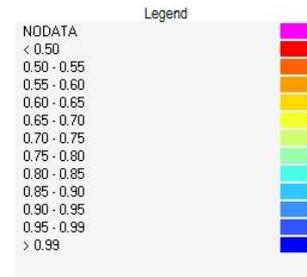
CORRELATION WITH BASELINE

Extents: -74.6443259609859 , 17.9364614198735 - -72.7481423019141 , 19.0171938338335



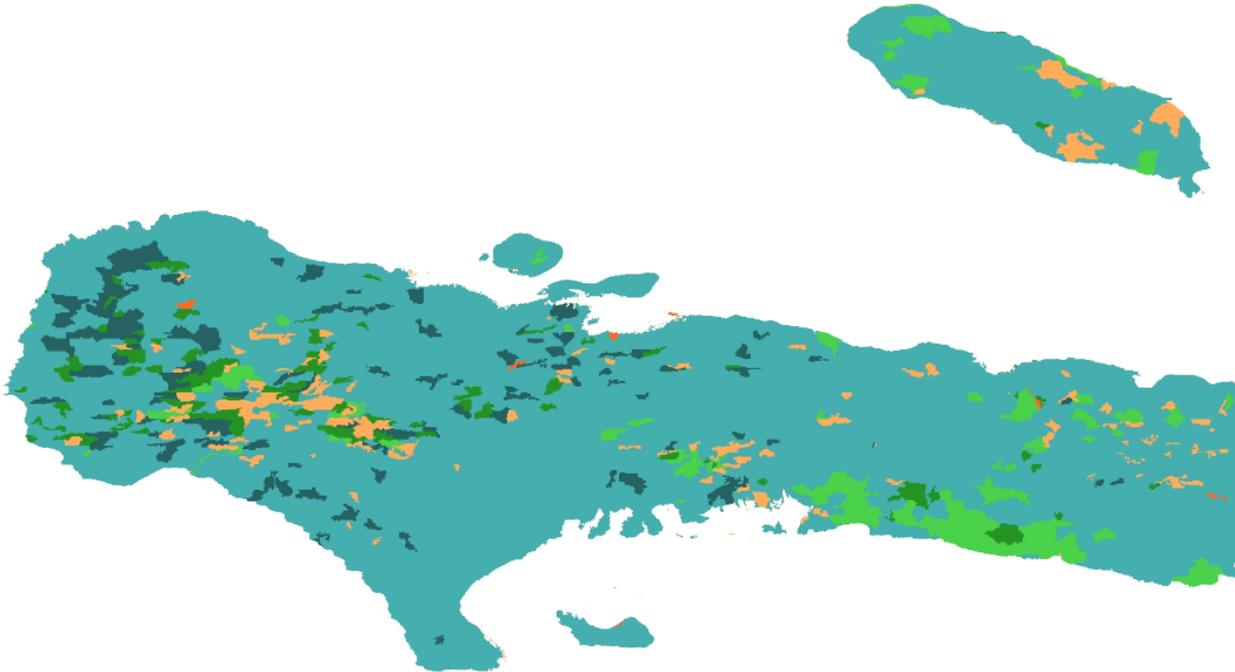
The map shows the local correlation between real index values and baseline. High values denote a good relation with the baseline, and also an almost homogenous behavior over the long term. Instead, low values may denote significant trends (positive or negative), or occasional anomalies.

USED INDEX (R): the coefficient of correlation between the real values and the baseline repeated for each year.



STABILITY INDEX

Extents: -74.6443259609859 , 17.9364614198735 - -72.7481423019141 , 19.0171938338335



The map shows the "local prevalence of normal compared to exceptional events", where "exceptional" can be characterized as both "negative" and "positive" events. This map provides an indicator of the agro-climatic and/or environmental stability of the area.

An area is "stable" if the number of "normal" events is greater or equal with respect to the sum of "negative" and "positive" events.

This map does not take into account the relevance of each event but only their number.

USED INDEX (LowHighIND): the index is a composite index and it does not follow a "natural" scale.

First, for each map unit, each period/image is classified as "normal", "positive" and "negative". An event (period/image) is "normal" if the normalized deviation is within the range of tolerance around the baseline, it is "positive" if higher than the tolerance, it is "negative" if lower than the tolerance. The tolerance is defined in term of standard deviation and its value is set in the general settings.

Then "normal", "positive" and "negative" events are counted, and an area is defined "stable" if "normal" events are greater than the sum of "positive" and "negative" events; otherwise the area is defined "unstable".

Finally:

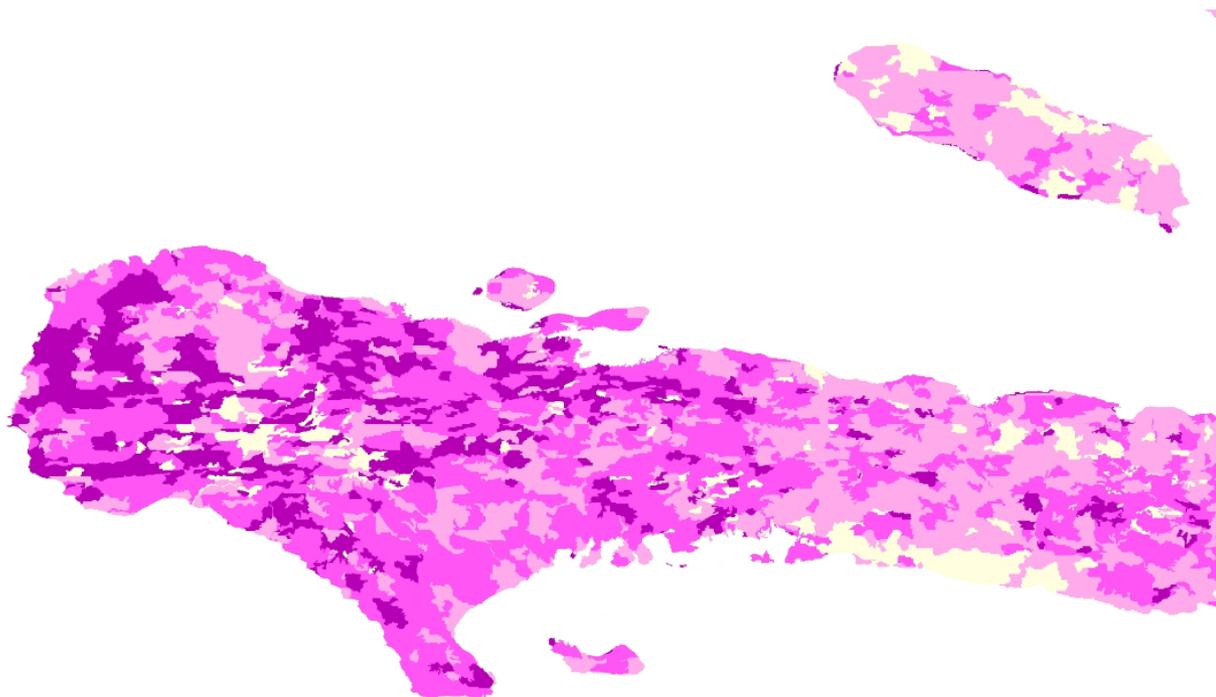
- for "stable" areas the index is the percentage of "normal" events over total events,
- for "unstable" areas with prevalence of "positive" events, the index is the percentage of "positive" events over the total events increased by 100
- for "unstable" areas with prevalence of "negative" events, the index is the percentage of "negative" events over the total events changed sign.

Legend

Unstable stress prevalence (> 30 %)	Orange
Unstable stress prevalence (< 30 %)	Light Orange
Stable (50-60 %)	Teal
Stable (> 60 %)	Dark Teal
Unstable positive prevalence (0-30 %)	Light Green
Unstable positive prevalence (> 30 %)	Dark Green

RELEVANCE OF EXCEPTIONAL EVENTS

Extents: -74.6443259609859, 17.9364614198735 - -72.7481423019141, 19.0171938338335



The map shows the "local level of variability focused on the exceptional events" (both the negative and the positive events exceeding the tolerancy around the baseline).

This map is useful to distinguish between "stable" and "unstable" areas, and it is helpful to highlight areas with variable agro-climatic and/or environmental conditions.

The map differs from the map HISTORICAL GLOBAL VARIABILITY because this map shows the standard deviation of the index calculated over the "entire time series" and uses all the available data (normal and exceptional events).

Instead, the map RELEVANCE OF EXCEPTIONAL EVENTS takes into account only "exceptional" events, uses normalized value, and averages the effects of rare abnormal events.

USED INDEX (LowHigRNG): the index is the difference between the average normalized deviation from the baseline of "positive" events, and the corresponding data of "negative" events.

First, for each map unit, each period/image is classified as "normal", "positive" or "negative". An event (period/image) is "normal" if the normalized deviation is within the range of tolerance, it is "positive" if higher than the tolerance, it is "negative" if lower than the tolerance. The tolerance is defined in term of standard deviation and its value is set in the general settings.

Then for all "positive" events, the average of the index for a single period, within the map unit, is calculated; then, this value is compared with the baseline (the value at the same period) and the deviation (the difference between the value and the baseline) is normalized by dividing by the standard deviation of that period. The average of these values (the normalized deviations from the baseline of "positive" events) is calculated (called HigherAverage).

HigherAverage).

Similarly the average of the normalized deviations from the baseline of "negative" events is calculated (called LowerAverage).

The used index is the difference between HigherAverage and LowerAverage.

