

Article

# Global MODIS Fraction of Green Vegetation Cover for Monitoring Abrupt and Gradual Vegetation Changes

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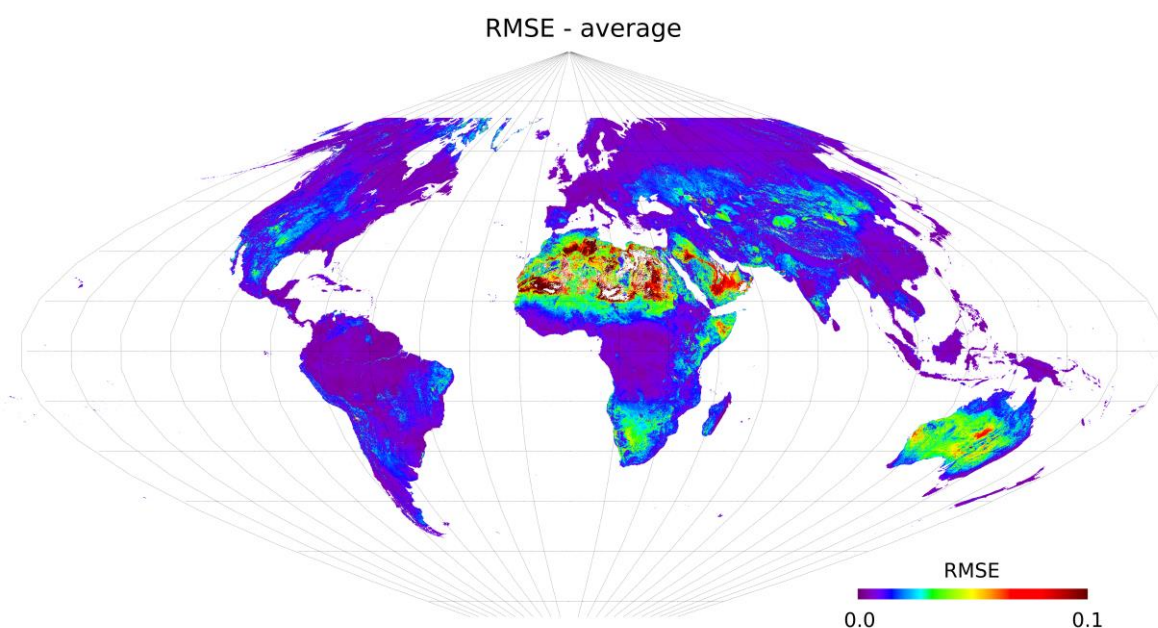


Figure S1. FCover Average RMSE

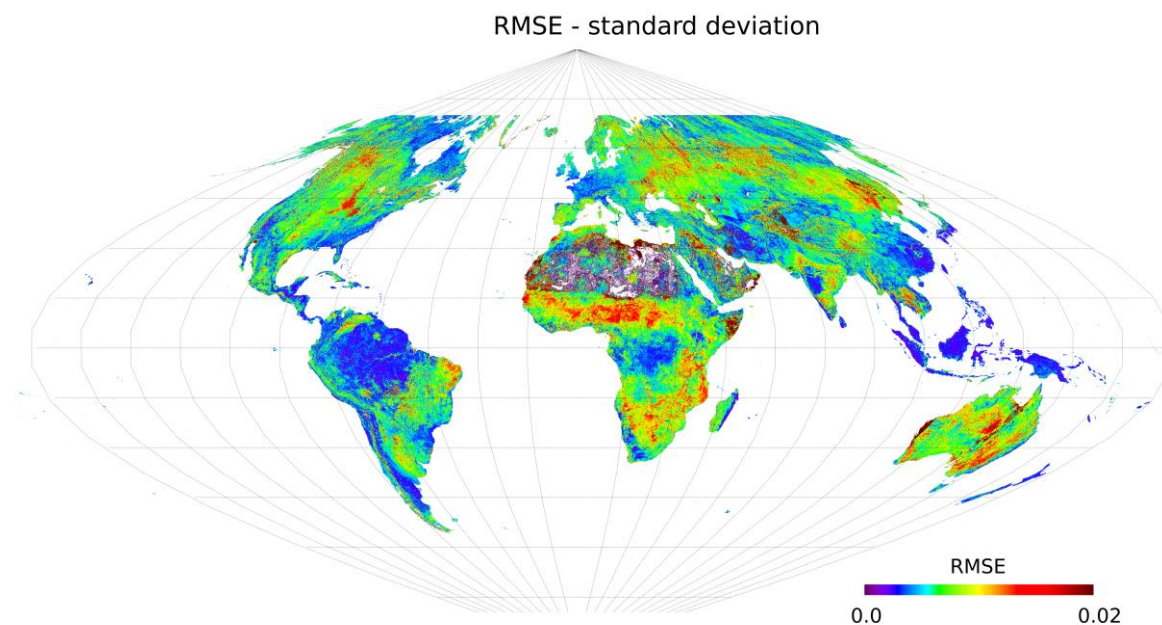


Figure S2. FCover RMSE standard deviation

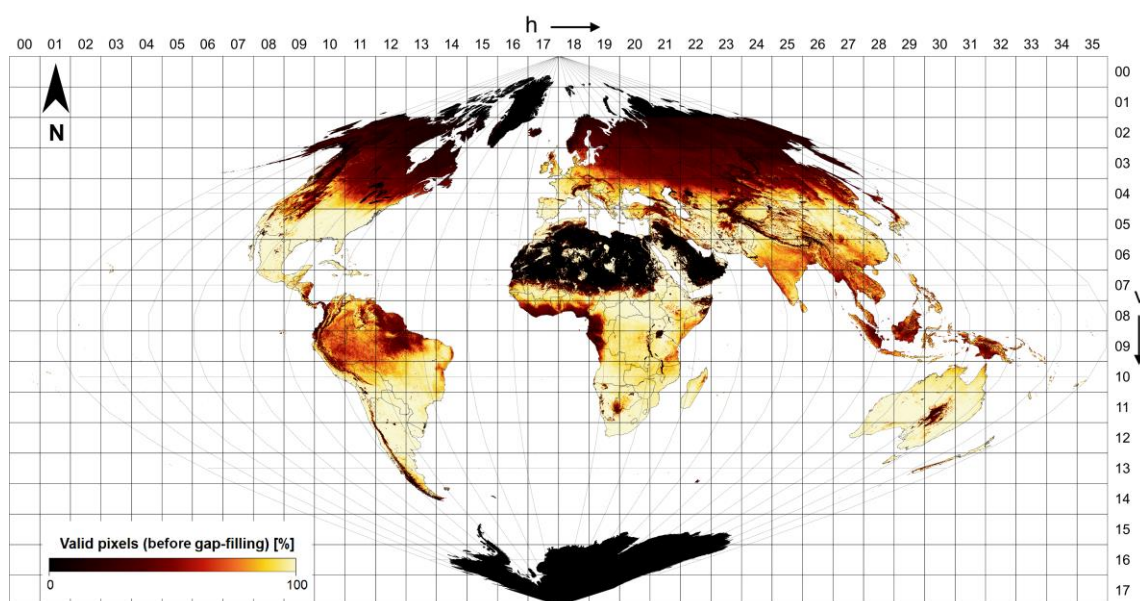


Figure S3. Percentage of valid monthly composite pixels before MODV1 gap-filling in the original MODIS tiling system in sinusoidal projection.

Table S1. Products used to build the static mask.

Theme	Product name	Product source	Property	Data/Product reference or web link	Spatial resolution	Temporal resolution	Reference years
Ocean	LC EPOCH	ESA	ESA	<a href="https://www.esa">https://www.esa</a>	300m	5 years	2010

	2010			-landcover-cci.o rg/?q=node/158			
Water bodies	CCI WaterBodies v3.0	ESA	ESA	https://www.esa -landcover-cci.o rg/?q=node/169	150m	5 years	2010
Non- vegetated arid desert	Aridityindex	-	CGIAR-CSI	http://www.cgia r-csi.org/data/gl obal-aridity-and -pet-database	1km	Na	Na
Large urban areas	LC EPOCH 2010	ESA	ESA	https://www.esa -landcover-cci.o rg/?q=node/158	300m	5 years	2010

**Table S2.** Information from the monthly VI Quality detailed QA layer used to build the dynamic mask.

Long Name	Key
MODLAND_QA	Pixel produced but most probably cloudy
	Pixel not produced due to other reasons than clouds
VI usefulness	Lowest quality
	Quality so low that it is not useful
	L1B data faulty
	Not useful for any other reason/not processed
Land/Water Flag	Shallow ocean
	Ocean coastlines and lake shorelines
	Shallow inland water
	Ephemeral water
	Deep inland water
	Moderate or continental ocean
	Deep ocean
Possible snow/ice	Yes
Possible shadow	Yes

**Table S3.** Information from the monthly pixel reliability summary QA layer used to build the dynamic mask.

Summary QA	Description
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Fill/No Data	Not Processed
Good Data	Use with confidence
Marginal data	Useful, but look at other QA information
Snow/Ice	Target covered with snow/ice
Cloudy	Target not visible, covered with cloud

**Table S4.** Description of quality flags associated with each FCover monthly tile.

bit	name	description	value	key
0	STATIC_MASK	Pixel is masked from auxiliary thematic maps	0	pixel with values
			1	masked pixel
1	BRIGHT	Pixel is extremely bright	0	in range
			1	pixel is too bright
2	INVALID_TEMP_PROFILE	Pixel temporal profile has less than 70% valid pixels	0	valid
			1	invalid
3	INTERPOLATED	Pixel is gap-filled using DINEOF	0	not filled
			1	filled
4	SNOW_ICE	Pixel is covered by snow or ice	0	not covered
			1	covered by snow/ice
5	LAND	Pixel is land	0	no land
			1	land
6	INCOMPLETE	Pixel temporal profile contains at least one missing value	0	complete
			1	incomplete
7	VALID	Pixel is valid	0	invalid
			1	valid



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