

## Appendix S1. Environmental predictors of global extent accessible through the Internet.

Data description	Sensor source (Satellites)	Spatial resolution	Temporal resolution	Data available	Information
<b>LAND</b>					
<b>Topography</b>					
Digital Elevation Model (DEM)	SRTM	30-90 m	n.a.	Feb 2000	<a href="http://srtm.usgs.gov/">http://srtm.usgs.gov/</a>
<b>Vegetation Indexes</b>					
Normalized Difference Vegetation Index (NDVI)	AVHRR GIMMS (NOAA)	8 km	Month	1981-2003	<a href="http://glcf.umiacs.umd.edu/data/gimms/">http://glcf.umiacs.umd.edu/data/gimms/</a>
Normalized Difference Vegetation Index (NDVI)	Sea-WIFS	4 km, 9 km	1, 3, 7 days, month, season, year	Sep 1997-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Normalized Difference Vegetation Index (NDVI)	VEGETATION (Spot)	1, 4, 8 km	1, 10 days	Mar 1998-ongoing	<a href="http://www.spot-vegetation.com/vegetationprogramme/index.htm">http://www.spot-vegetation.com/vegetationprogramme/index.htm</a>
Normalized Difference Vegetation Index (NDVI)	MODIS (Terra/aqua)	250 – 500 m - 1 km	16 days, month	Dec 1999-ongoing	<a href="http://tbrs.arizona.edu/cdrom/VI_Intro/VI_Introduction.html">http://tbrs.arizona.edu/cdrom/VI_Intro/VI_Introduction.html</a>
Enhanced Vegetation Index (EVI)	MODIS (Terra/aqua)	250 – 500 m - 1 km	16 days, month	Dec 1999-ongoing	<a href="http://tbrs.arizona.edu/cdrom/VI_Intro/VI_Introduction.html">http://tbrs.arizona.edu/cdrom/VI_Intro/VI_Introduction.html</a>
<b>Land cover/ land cover dynamics</b>					
Global Land Cover Classification	AVHRR	1 – 8 km – 1 Degree	14 years	1981-1994	<a href="http://glcf.umiacs.umd.edu/data/landcover/">http://glcf.umiacs.umd.edu/data/landcover/</a>
Land Cover Types	MODIS (Terra)	1 km	Year	2001-ongoing	<a href="http://www-modis.bu.edu/landcover/">http://www-modis.bu.edu/landcover/</a>
Land Cover Dynamics	MODIS (Terra)	1 km	Year	2001-2004	<a href="http://www-modis.bu.edu/landcover/">http://www-modis.bu.edu/landcover/</a>
Continuous Field Tree Cover (CFTC)	AVHRR	1 km	Year	1992-1993	<a href="http://glcf.umiacs.umd.edu/data/treecover/">http://glcf.umiacs.umd.edu/data/treecover/</a>
Vegetative Cover Conversion (VCC)	MODIS (Terra)	250 m	96 days	Jan 2001-ongoing	<a href="http://glcf.umiacs.umd.edu/data/modis/vcc/">http://glcf.umiacs.umd.edu/data/modis/vcc/</a>
Vegetation Continuous Fields (VCF)	MODIS (Terra)	500 m	Year	Aug 2001-10/2002	<a href="http://glcf.umiacs.umd.edu/data/modis/vcf/">http://glcf.umiacs.umd.edu/data/modis/vcf/</a>
<b>Productivity</b>					
Photosynthetic Active Radiation (PAR)					
Net Primary Productivity (NPP)	VEGETATION (Spot)	1 km	10 days	Apr 1998-ongoing	<a href="http://www.geosuccess.net/geosuccess/relay.do?dispatch=NPP_info">http://www.geosuccess.net/geosuccess/relay.do?dispatch=NPP_info</a>
Net Ecosystem Productivity (NEP)	VEGETATION (Spot)	1 km	10 days	Apr 1998-ongoing	<a href="http://www.geosuccess.net/geosuccess/relay.do?dispatch=NEP_info">http://www.geosuccess.net/geosuccess/relay.do?dispatch=NEP_info</a>
Dry Matter Productivity (DMP)	VEGETATION (Spot)	1 km	10 days	Apr 1998-ongoing	
Apparent Green Cover Percentage (AGCP)	VEGETATION (Spot)	1 km	10 days		<a href="http://www.geosuccess.net/geosuccess/relay.do?dispatch=DL_info">http://www.geosuccess.net/geosuccess/relay.do?dispatch=DL_info</a>
Net Primary Production (NPP)	MODIS (Terra)	1 km	Year	2001-Ongoing?	<a href="http://modis-land.gsfc.nasa.gov/npp.htm">http://modis-land.gsfc.nasa.gov/npp.htm</a>
Net Photosynthesis (NPP)	MODIS (Terra)	1 km	8 days	Jan 2001-ongoing	<a href="http://modis-land.gsfc.nasa.gov/npp.htm">http://modis-land.gsfc.nasa.gov/npp.htm</a>
Net Primary Production (NPP)	AVHRR Global Production Efficiency Model	8 km	10 days -year	1981-2000	<a href="http://glcf.umiacs.umd.edu/data/glopem/">http://glcf.umiacs.umd.edu/data/glopem/</a>
<b>LAI and Fpar</b>					
Leaf Area Index (LAI)	MODIS (Terra/aqua)	1 km	1, 8 days	Aug 2002-ongoing?	<a href="http://cliveg.bu.edu/modismisr/index.html">http://cliveg.bu.edu/modismisr/index.html</a>
Fraction of Photosynthetically Active Radiation (Fpar)	MODIS (Terra/aqua)	1 km	1, 8 days	Aug 2002-ongoing?	<a href="http://cliveg.bu.edu/modismisr/index.html">http://cliveg.bu.edu/modismisr/index.html</a>
Land Surface Temperature/Emissivity	MODIS (Terra/aqua)	1 – 5 km	1, 8 days	Dec 1999-ongoing	<a href="http://www.icess.ucsb.edu/modis/modis-lst.html">http://www.icess.ucsb.edu/modis/modis-lst.html</a>
<b>Fire/burned areas</b>					
ATSR Global Burned Forest Mapping (GBFM)	ATSR-2 (ERS-2)	1 km	Month	2000	<a href="http://dup.esrin.esa.it/ionia/projects/summaryr24.asp">http://dup.esrin.esa.it/ionia/projects/summaryr24.asp</a>
ATSR Global Fire Atlas (ATS WFA)	ATSR-2 (ERS-2)	1 km	Month	1995-ongoing	<a href="http://dup.esrin.esa.it/ionia/projects/summaryr62.asp">http://dup.esrin.esa.it/ionia/projects/summaryr62.asp</a>
Thermal anomalies/Fire	MODIS (Terra/aqua)	1 km	1, 8 days	Feb 2000-ongoing	<a href="http://modis-fire.umd.edu/">http://modis-fire.umd.edu/</a>
Burned areas in Russia	AVHRR	1 km	Year	1996-2002	<a href="http://glcf.umiacs.umd.edu/data/russiaforest/">http://glcf.umiacs.umd.edu/data/russiaforest/</a>
<b>Biosphere</b>					
IGBP-Biomes	Sea-WIFS	9 km	7 days, month, season, year	Sep 1997-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Global Land Cover 2000	VEGETATION (Spot)	1 km	n.a.	Apr 1998-Apr 1999	<a href="http://www.geosuccess.net/geosuccess/relay.do?dispatch=BIOME_info">http://www.geosuccess.net/geosuccess/relay.do?dispatch=BIOME_info</a>
	VEGETATION (Spot)	1 km	n.a.	Nov 1999-Dec 2000	<a href="http://www-gvm.jrc.it/glc2000/objectivesGLC2000.htm">http://www-gvm.jrc.it/glc2000/objectivesGLC2000.htm</a>
<b>Albedo/surface reflectance</b>					

Land Reflectance	Sea-WIFS	4 km, 9 km	1,7 days, month, season, year	Sep 1997-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Surface reflectance	MODIS (Terra/aqua)	250 – 500 m	1, 8 days	Dec 1999-ongoing	<a href="http://modis-sr.ltdri.org/html/surfref.htm">http://modis-sr.ltdri.org/html/surfref.htm</a>
Albedo/BRDF (Bidirectional Reflectance Distribution Function)	MODIS (Terra/aqua)	1 km	16 days	Dec 1999-ongoing	<a href="http://www-modis.bu.edu/brdf/">http://www-modis.bu.edu/brdf/</a>
Snow Cover	MODIS (Terra/aqua)	500 m	1,8 days, month	Dec 1999-ongoing	<a href="http://modis-snow-ice.gsfc.nasa.gov/">http://modis-snow-ice.gsfc.nasa.gov/</a>
<b>Small water bodies</b>	VEGETATION (Spot)	1 km	10 days	Ongoing	<a href="http://www.geosuccess.net/geosuccess/relay.do?dispatch=SWB_info">http://www.geosuccess.net/geosuccess/relay.do?dispatch=SWB_info</a>
<b>OCEAN</b>					
<b>Topography</b>					
Geostrophic currents and velocity anomalies	Topex/Poseidon, Jason-1, ERS-1/2, Envisat	35 – 105 km	7 days, month, 2 months	Oct 1992-ongoing	<a href="http://www.aviso.oceanobs.com/">http://www.aviso.oceanobs.com/</a>
Maps of Absolute Dynamic Topography (Sea surface height)	Topex/Poseidon, Jason-1, ERS-1/2, Envisat	35 – 105 km	7 days, month, 2 months	Oct 1992-ongoing	<a href="http://www.aviso.oceanobs.com/">http://www.aviso.oceanobs.com/</a>
Maps of Sea Level anomalies (Sea level anomalies)	Topex/Poseidon, Jason-1, ERS-1/2, Envisat	35 – 105 km	7 days, month, 2 months	Oct 1992-ongoing	<a href="http://www.aviso.oceanobs.com/">http://www.aviso.oceanobs.com/</a>
Finite Elements Solution (FES) – Global Tides	Topex/poseidon and Tide gauges	26 km	Prediction algorithm		<a href="http://www.aviso.oceanobs.com/">http://www.aviso.oceanobs.com/</a>
Wave height and wind speeds	Topex/Poseidon, Jason-1, ERS-1/2, Envisat	105 km	Day	Dec 2005-ongoing	<a href="http://www.aviso.oceanobs.com/">http://www.aviso.oceanobs.com/</a>
Waveform information	Jason-1, Envisat, Topex/Poseidon			Jan 2002-ongoing	<a href="http://www.aviso.oceanobs.com/">http://www.aviso.oceanobs.com/</a>
Wind velocity and direction	NASA QuickScat	52 km	Twice a day, month	1999-ongoing	<a href="http://winds.jpl.nasa.gov/missions/quikscat/index.cfm">http://winds.jpl.nasa.gov/missions/quikscat/index.cfm</a>
<b>Ocean properties</b>					
Sea Ice	MODIS (Terra/aqua)	1, 4 km	1 day	Dec 1999-ongoing	<a href="http://modis-snow-ice.gsfc.nasa.gov/">http://modis-snow-ice.gsfc.nasa.gov/</a>
Chlorophyll a concentration	MODIS (Terra-Aqua)	4 km, 9 km	1, 3, 7 days, month, season, year	Jul 2002-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Chlorophyll a concentration	Sea-WIFS	9 km	1, 3, 7 days, month, season, year	Sep 1997-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Chlorophyll a concentration	Ocean Color Temperature Scanner (ADEOS)	9 km	1, 3, 7 days, month, season, year	Nov 1996-Jun 1997	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Chlorophyll a concentration	Coastal Zone Color Scanner (Nimbus-7)	4 km, 9 km	1,7 days, month, season, year	Oct 1978-Jun 1986	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Average Sea Surface Temperature	ATSR (ERS-2, ENVISAT)	17 km, 52 km	1 day, month	Jan 1995-ongoing	<a href="http://odisseo.esrin.esa.it/asst-cgi/pinf.cgi#dpro">http://odisseo.esrin.esa.it/asst-cgi/pinf.cgi#dpro</a>
Sea Surface Temperature day/night	Aqua-MODIS	4 km, 9 km	1, 3, 7 days, month, season, year	Jul 2002-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Photosynthetic Active Radiation (reaching the ocean surface)	Sea-WIFS	9 km	7 days, month, season, year	Sep 1997-ongoing	<a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>
Suspended Solids Concentration	MODIS (Terra-Aqua)	4 km	1, 8 days, month, season, year		
Pigment Concentration	MODIS (Terra-Aqua)	4 km	1, 8 days, month, season, year		
Organic Matter Concentration	MODIS (Terra-Aqua)	4 km	1, 8 days, month, season, year		
Ocean Primary Productivity	MODIS (Terra-Aqua)	4.6 – 36 km	8 days , year		

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