Why care about peatlands?:

Detecting degraded peatlands for landscape restoration

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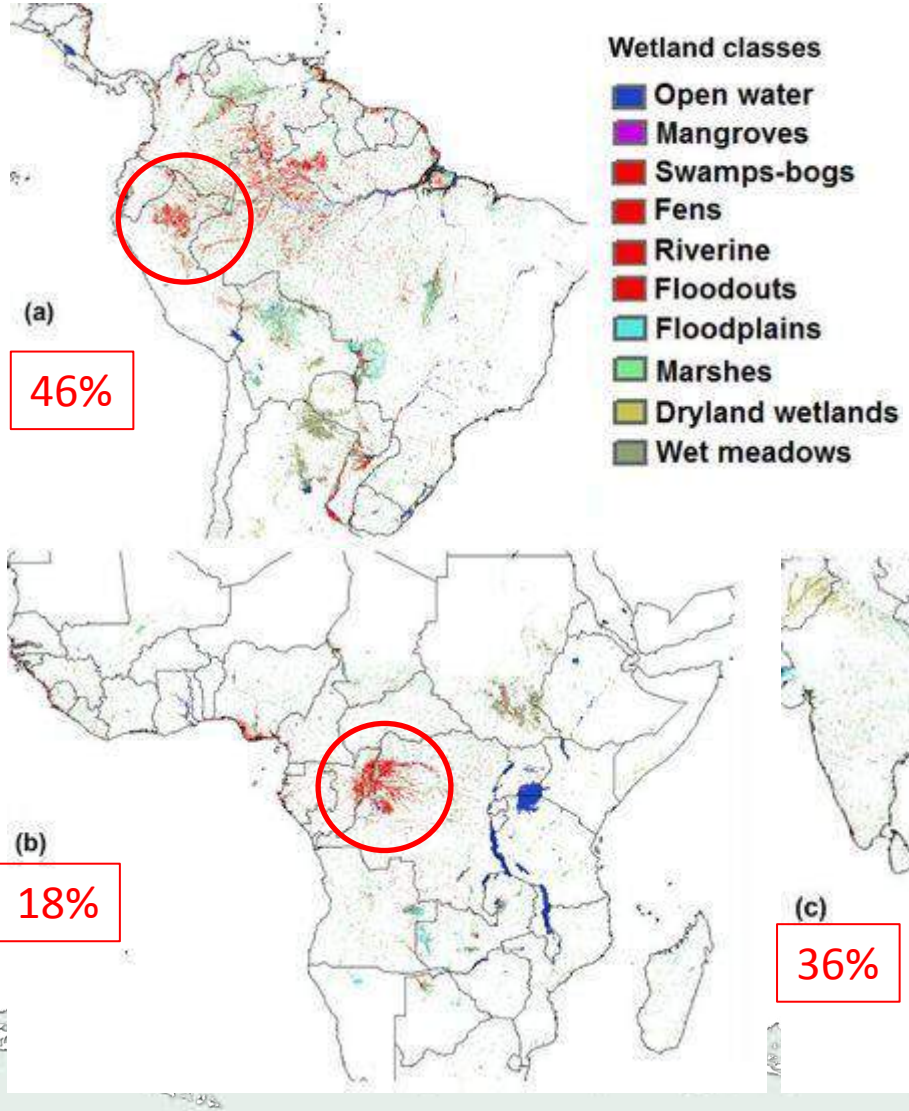
Global wetlands map



Region	Country	Area	Volume	Depth
		km2	km3	m
Asia	Indonesia	225,420	1,388	3.4
	Malaysia	29,649	180	3.4
	Papua New Guinea	45,018	220	3.2
South America	Brazil	312,250	1,489	3.1
	Colombia	74,950	327	2.9
	Peru	74,644	449	2.8
Africa	Congo DRC	115,690	747	3.1
	Congo	43,769	345	3.3
	Nigeria	21,685	114	3.1

Gumbricht et al. 2017. GCB

The landing page

http://www.cifor.org/global-wetlands

Monitoring degradation – a new method

2001-2016

Rainfall trends
TRMM satellite data

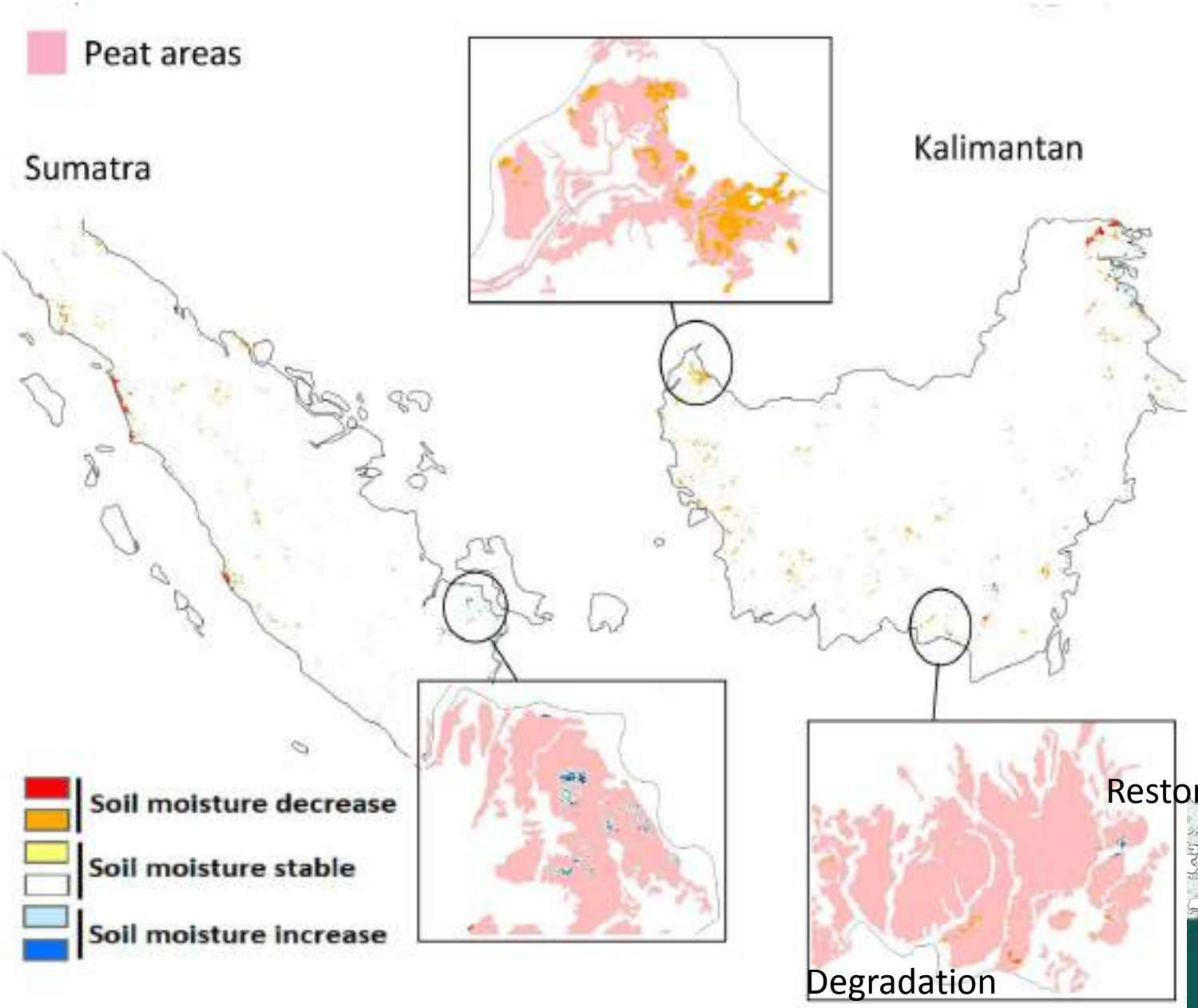
Moisture trends
MODIS satellite data
(soil reflection calibrated with ground moisture)

Trend relation between rainfall and soil moisture

250m

		TWI (SOIL MOISTURE)		
		Decrease	No change	Increase
RNTWI (RAINFALL)	Decrease	1	2	X
	No change	4	5	6
	Increase	7	8	9

Trends in soil moisture

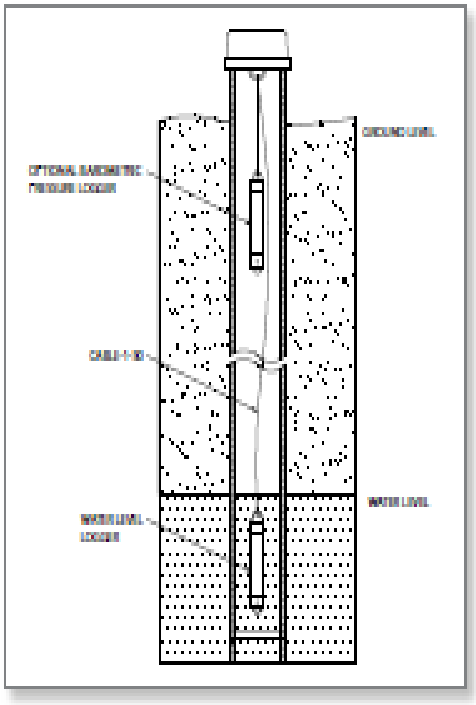


Verifying degraded peatland landscape

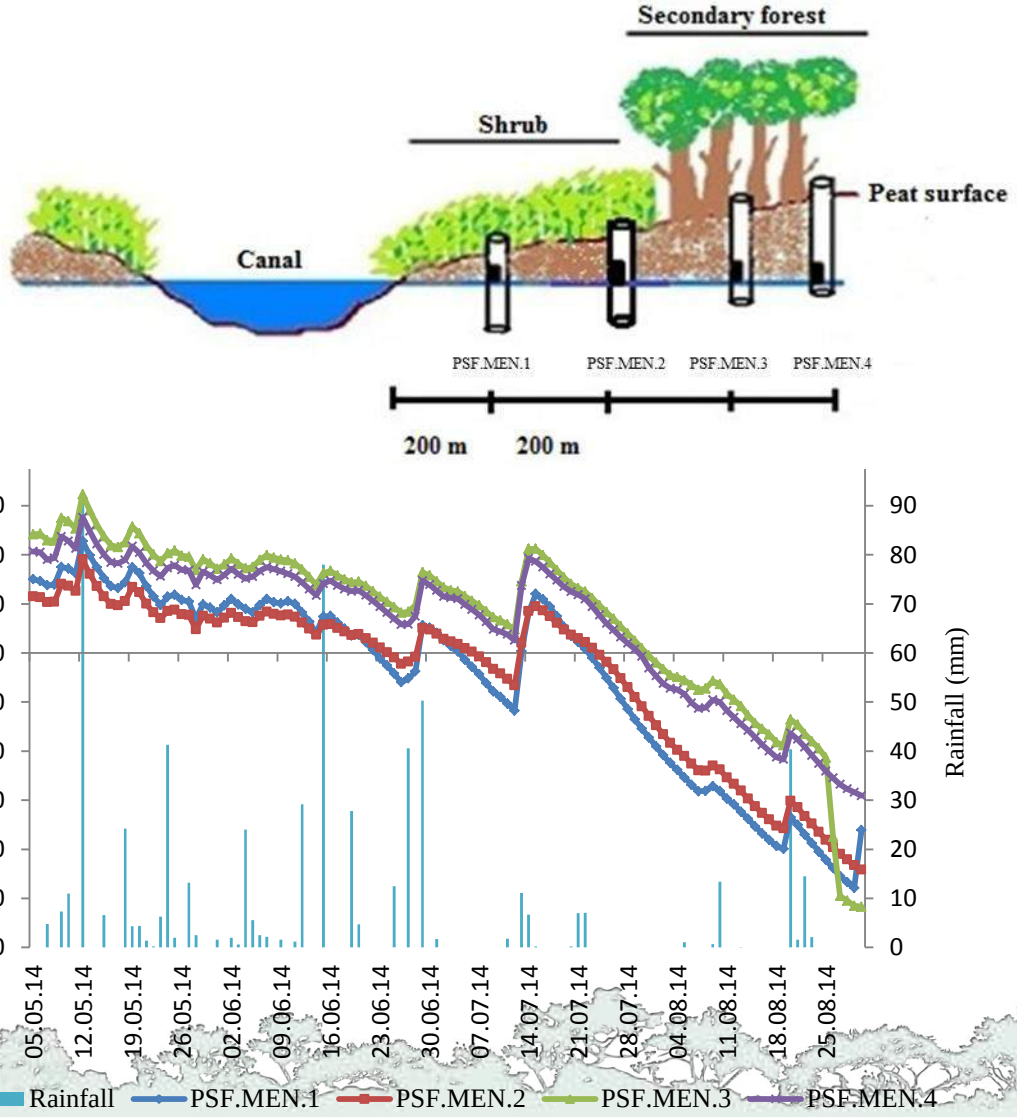
Secondary PSF

Shrubs

Water regime monitoring



Water table and distance from canal

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