

## Supplementary

**Table. S1. Legend translation to produce a common forest canopy cover for various land cover datasets based on (Song et al., 2014). For references see Table. 2.**

Products	Land cover class	Fraction
GLCC, MODIS LC	Forest (evergreen needleleaf; deciduous needleleaf; evergreen broadleaf; evergreen needleleaf; mixed)	0.80
	Woody savannas	0.45
	Cropland/Natural Vegetation Mosaic	0.25
	Savannas	0.20
	Open shrublands; closed shrublands; grasslands; croplands; urban and build-up; snow and ice; water bodies; permanent wetlands; barren or sparsely vegetated	0
GLC2000	Tree cover (evergreen broadleaved, closed deciduous broadleaved)	0.70
	Tree cover (evergreen needleleaf; deciduous needleleaf; mixed leaf type; regularly flooded fresh or saline)	0.575
	Mosaic: Tree cover/other natural vegetation	0.50
	Tree cover (open deciduous broadleaved)	0.275
	Mosaic: cropland/tree cover/ other natural vegetation	0.25
Tree cover burnt; shrub cover (evergreen, deciduous); herbaceous cover; sparse herbaceous or sparse shrub cover; regularly flooded shrub and/or herbaceous cover; cultivated and managed areas; mosaic: cropland / Shrub and/or grass cover; bare areas; water bodies; snow and ice; artificial surfaces and associated areas	0	
GlobCover	Closed forest (broadleaved deciduous; needle leaved evergreen)	0.70
	Closed to open forest (broadleaved evergreen or semi-deciduous, mixed broadleaved and needle leaved, broadleaved forest regularly flooded)	0.575
	Open broadleaved deciduous forest/woodland; open needle leaved deciduous or evergreen forest; mosaic forest or shrubland / grassland	0.30
	Mosaic vegetation (grassland/shrubland/forest) / cropland	0.20
	Mosaic grassland / forest or shrubland	0.175
	Mosaic cropland / vegetation (grassland/shrubland/forest)	0.117
	Post-flooding or irrigated croplands (or aquatic); rainfed croplands; closed to open (broadleaved or needle leaved, evergreen or deciduous); closed to open herbaceous vegetation (grassland, savannas or lichens/mosses); sparse vegetation; closed broadleaved forest or shrubland permanently flooded; closed to open grassland or woody vegetation on regularly flooded or waterlogged soil; artificial surfaces and associated areas; bare areas; water bodies; permanent snow and ice	0