

S1. Reclassification information of land cover data products.

Code	Type	MCD12Q1 (500 m)	GLC_FCS30D (30 m)
1	Cropland	12 Croplands, 14 Cropland/Natural Vegetation Mo- saics	10 Rainfed cropland, 11 Herbaceous cover, 12 Tree or shrub cover, 20 Irrigated cropland
2	Forest	1 Evergreen Needleleaf Forests, 2 Evergreen Broadleaf Forests, 3 Deciduous Needleleaf Forests, 4 Deciduous Broadleaf Forests, 5 Mixed Forests	51 Open evergreen broadleaved forest, 52 Closed evergreen broadleaved forest, 61 Open deciduous broadleaved forest, 62 Closed deciduous broadleaved forest, 71 Open evergreen needle-leaved forest, 72 Closed evergreen needle-leaved forest, 81 Open deciduous needle-leaved forest, 82 Closed deciduous needle-leaved forest, 91 Open mixed leaf forest, 92 Closed mixed leaf forest
3	Grassland	8 Woody Savannas, 9 Savannas, 10 Grasslands	130 Grassland
4	Shrubland	6 Closed Shrublands, 7 Open Shrublands	122 Deciduous shrubland
5	Wetland	11 Permanent Wetlands	180 Wetlands
6	Water	17 Water Bodies	210 Water body
7	Tundra	/	140 Lichens and mosses, 150 Sparse vegetation
8	Impervious surface	13 Urban and Built-up Lands	190 Impervious surfaces
9	Bare land	16 Barren	200 Bare areas, 201 Consolidated bare areas
10	Permanent ice/snow	15 Permanent Snow and Ice	202 Unconsolidated bare areas, 152 Sparse shrubland, 153 Sparse herbaceous
			220 Permanent ice and snow