

Supplementary Material

Comparison on two synergy approaches for hybrid cropland mapping

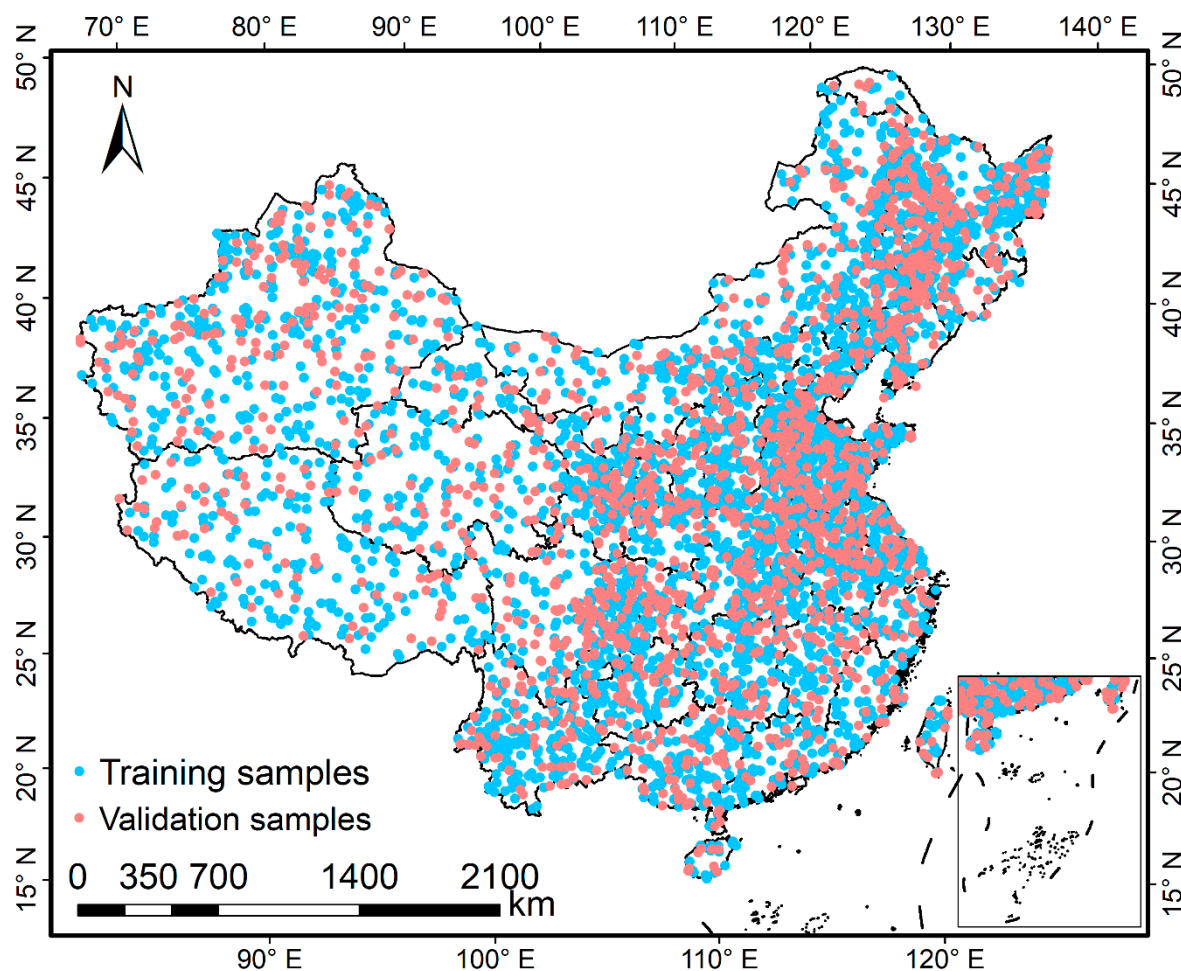


Figure S1. Distribution of training and validation samples.

Table S1. The score table of Modified Fuzzy Agreement Scoring method (5 input maps).

Agreement of input maps	Value of score	Map 1	Map 2	Map 3	Map 4	Map 5
5	1	1	1	1	1	1
	2	1	1	1	1	0
	3	1	1	1	0	1
	4	1	1	0	1	1
	5	1	0	1	1	1
	6	0	1	1	1	1
3	7	1	1	1	0	0
	8	1	1	0	1	0
	9	1	1	0	0	1
	10	1	0	1	1	
	11	1	0	1	0	1
	12	1	0	0	1	1
	13	0	1	1	1	0
	14	0	1	1	0	1
	15	0	1		1	1
	16	0	0	1	1	1
2	17	1	1	0	0	0
	18	1	0	1	0	0
	19	1	0	0	1	0
	20	1	0	0	0	1
	21	0	1	1	0	0
	22	0	1	0	1	0
	23	0	1	0	0	1
	24	0	0	1	1	0
	25	0	0	1	0	1
	26	0	0	0	1	1
1	27	1	0	0	0	0
	28	0	1	0	0	0
	29	0	0	1	0	0
	30	0	0	0	1	0
	31	0	0	0	0	1
0	32	0	0	0	0	0

Table S2. Cropland definitions and modified cropland percentages of input maps.

Cropland maps	Cropland definition	Cropland percentage
GlobeLand30	Cultivated land	100%
CCI-LC	Cropland, rainfed	100%
	Herbaceous cover	80%
	Tree or shrub cover	80%
	Cropland, irrigated or post-flooding	100%
	Mosaic cropland (>50%) / natural vegetation (tree, shrub, herbaceous cover) (<50%)	60%
	Mosaic natural vegetation (tree, shrub, herbaceous cover) (>50%)/cropland (<50%)	40%
MODIS Collection5	Cropland	100%
	Cropland / natural vegetation mosaics	60%
MODIS Cropland	Cropland	100%
GlobCover 2009	Post-flooding or irrigated croplands (or aquatic)	100%
	Rainfed croplands	100%
	Mosaic cropland (50–70%) / vegetation (20–50%)	60%
	Mosaic vegetation (50–70%) / cropland (20–50%)	40%
Unified Cropland	Cropland	100%
NLUD-C	Paddy field	100%

dry land	100%
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Table S3. Provincial statistical data of cropland.

Provinces	Cropland statistical data (10 ⁴ km ²)	Provinces	Cropland statistical data (10 ⁴ km ²)	Provinces	Cropland statistical data (10 ⁴ km ²)	Provinces	Cropland statistical data (10 ⁴ km ²)
Heilongjiang	9.96	Qinghai	0.49	Henan	11.93	Guangxi	5.17
Neimenggol	6.25	Hebei	7.92	Hubei	7.25	Fujian	2.37
Xinjiang	4.14	Tianjin	0.41	Chongqing	2.97	Taiwan	1.22
Jilin	4.56	Liaoning	3.78	Shanghai	0.34	Hongkong	0
Gansu	4.24	Shandong	9.34	Zhejiang	2.49	Aomen	0
Beijing	0.32	Xizang	0.16	Hunan	7.44	Guangdong	4.26
Shanxi	4.59	Anhui	7.16	Jiangxi	4.78	Hainan	0.80
Shaanxi	3.57	Jiangsu	5.86	Yunnan	5.59		
Ningxia	1.19	Sichuan	8.40	Guizhou	4.22		