

Supplementary

Table S1. Interchange between forest and other land use types(unit:km²).

Land Use Type	1988–1992	1992–1996	1996–2000	2000–2004	2004–2008	2008–2011	2011–2014	2014–2017
Forest>water	6365	1080	1735	1478	288	2428	4922	3428
Forest>Agriculture	71043	32113	48830	48318	43378	45015	46986	47015
Forest>Water	1262	923	645	929	963	971	644	670
Forest>ISA	150	78	79	113	157	148	565	108
Forest>Bare	463	1268	1640	1029	939	615	2675	824
Forest>Ice	844	367	1569	682	1733	261	488	363
Water>Forest	805	954	817	619	622	896	745	716
Wetland>Forest	247	801	610	1765	722	876	595	596
ISA>Forest	11	75	103	69	55	173	147	214
Bare>Forest	568	392	1130	1639	822	1247	596	436
Ice>Forest	652	410	1130	358	186	1855	585	485
Agriculture>Forest	14,523	46,111	38,244	39,660	33,869	43,432	38,725	41,002

Table S2. Data detail table.

Path/Row	Acquisition Date								
130/45	2017/3/5	2014/3/16	2011/02/27	2008/02/22	2004/03/01	2000/01/12	1995/03/9	1992/03/7	1987/03/5
130/46	2017/3/5	2014/2/28	2011/02/21	2008/03/02	2004/03/09	2001/02/15	1996/02/28	1992/03/9	1988/03/5
130/50	2017/3/5	2014/3/16	2011/03/02	2008/02/26	2004/02/27	2000/02/15	1996/02/28	1991/02/17	1987/02/27
130/52	2017/2/1	2014/1/27	2011/03/02	2008/02/26	2004/03/26	2000/02/15	1996/02/28	1993/02/17	1989/02/27
130/53	2017/2/15	2014/2/28	2011/03/07	2008/02/26	2004/02/27	2000/02/15	1996/03/03	1992/02/17	1988/02/7
131/44	2017/2/8	2014/2/6	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	992/02/17	1988/02/26
131/45	2017/2/24	2014/2/28	2011/03/07	2007/02/6	2004/02/27	2000/02/15	1996/03/03	1992/02/17	1989/04/3
131/46	2017/2/8	2014/2/6	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
131/47	2017/2/27	2014/2/28	2011/03/07	2007/02/6	2004/02/27	2000/02/15	1996/03/03	1992/02/17	1989/04/3
131/48	2017/2/24	2015/3/7	2011/03/07	2007/02/6	2004/02/27	2000/02/15	1996/03/03	1992/02/17	1989/04/3

131/49	2017/3/5	2014/3/16	2011/03/02	2008/02/26	2004/02/27	2000/02/15	1996/02/28	1991/02/17	1987/02/27
131/50	2017/2/24	2015/2/3	2011/03/02	2008/02/26	2004/03/26	2000/02/15	1996/02/28	1993/02/17	1989/02/27
132/41	2017/1/30	2015/4/15	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
132/42	2017/1/30	2015/3/14	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
132/43	2017/1/30	2015/3/14	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
132/44	2017/3/3	2015/3/14	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
132/45	2017/3/3	2015/3/14	2011/03/02	2008/02/26	2004/03/26	2000/02/15	1996/02/28	1993/02/17	1989/02/27
132/46	2017/3/3	2015/3/14	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
132/47	2017/1/30	2015/2/26	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
132/48	2017/2/24	2015/3/7	2011/03/07	2007/02/6	2004/02/27	2000/02/15	1996/03/03	1992/02/17	1989/04/3
132/49	2017/3/3	2015/2/26	2011/03/02	2008/02/26	2004/02/27	2000/02/15	1996/02/28	1991/02/17	1987/02/27
133/40	2017/1/30	2015/4/15	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
133/41	2017/2/6	2015/3/14	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
133/42	2017/2/6	2015/3/14	2011/03/02	2008/02/2	2004/03/26	2000/02/15	1996/02/28	1993/02/17	1989/02/27
133/43	2015/3/14	2015/3/14	2011/02/24	2008/03/05	2004/02/2	2001/03/15	1997/03/7	1992/01/27	1988/02/12
133/44	2017/2/22	2015/3/14	2011/03/07	2007/02/6	2004/02/27	2000/02/15	1996/03/03	1992/02/17	1989/04/3
133/45	2015/3/14	2015/3/14	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
133/46	2017/2/6	2015/3/14	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
133/47	2017/2/6	2015/2/26	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
133/48	2017/2/6	2015/2/26	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
133/49	2017/2/6	2015/2/26	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
134/41	2017/2/13	2015/3/12	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
134/42	2017/2/13	2015/3/12	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
134/43	2017/3/1	2015/3/12	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
134/44	2017/3/1	2015/3/12	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
134/45	2017/1/28	2015/3/12	2011/03/14	2008/02/26	2004/02/27	2000/02/15	1995/03/03	1992/02/17	1988/02/26
134/46	2017/1/28	2015/1/7	2011/03/07	1989/04/3	2007/02/6	2004/02/27	2000/02/15	1996/03/03	1992/02/17
134/47	2017/2/13	2015/3/12	2011/03/02	2008/02/26	2004/02/27	2000/02/15	1996/02/28	1991/02/17	1987/02/27
135/43	2017/2/4	2015/3/19	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
135/44	2017/1/19	2015/1/30	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12
135/45	2017/1/19	2015/3/3	2011/02/24	2008/03/05	2004/02/27	2001/03/15	1997/03/7	1992/01/27	1988/02/12

135/46

2017/1/28

1988/02/26

2015/3/3

2011/03/14

2008/02/26

2004/02/27

2000/02/15

1995/03/03

1992/02/17

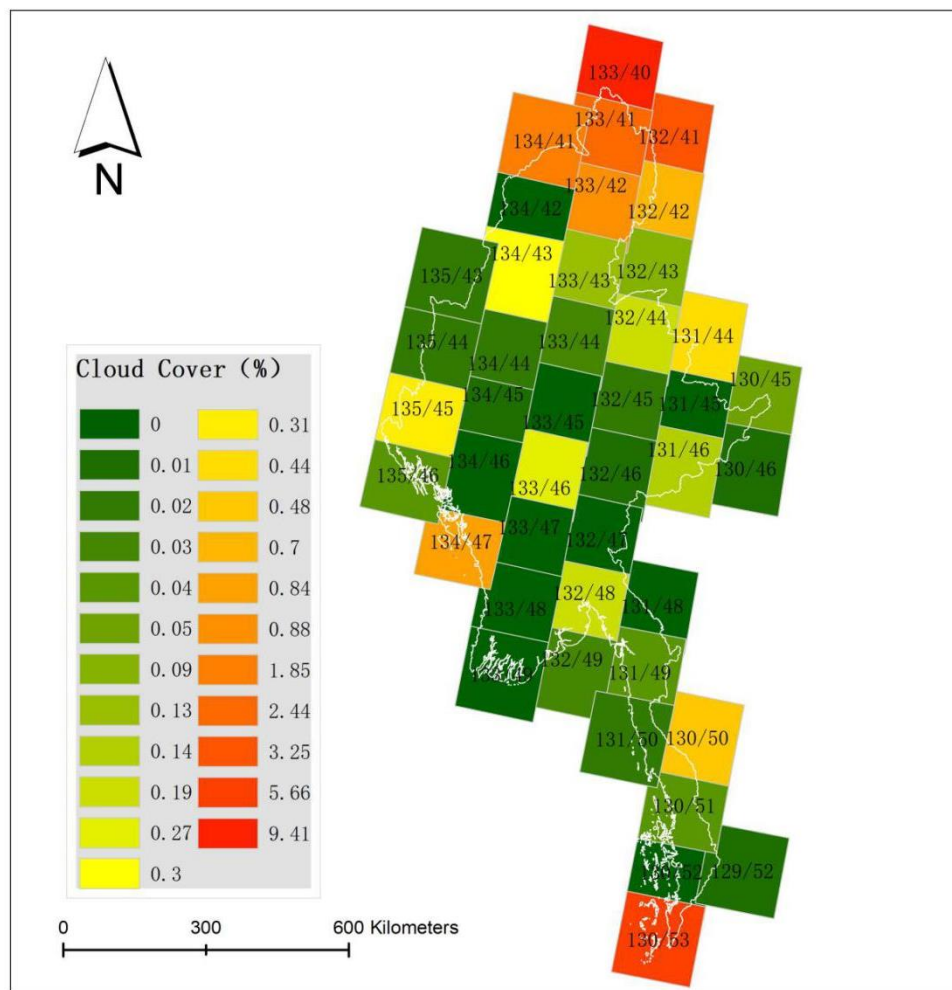


Figure S1. Research on data cloud coverage.

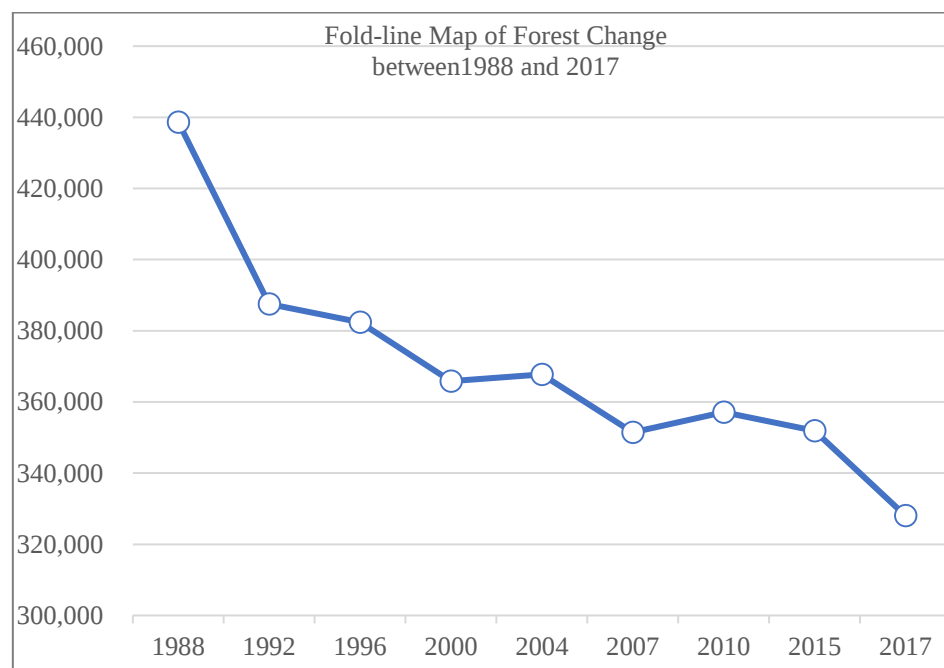


Figure S2. Line Map of Forest Change between 1988 and 2017.

Table S3. Accuracy of land use classification.

Class	Commission (Percent)	Omission (Percent)	Commission (Pixels)	Omission
water	4.20	15.81	440/10469	1884/11913
forest	2.36	1.95	1957/82993	1613/82649
bare	22.16	11.76	158/713	74/629
ice	0.06	1.17	4/7114	84/7194
wetland	46.07	37.41	363/788	254/679
agriculture	10.00	9.21	4068/40698	3715/40345
building	17.11	2.11	758/4429	79/3750
<i>Prod. Acc.(Percent) User Acc. (Percent) Prod. Acc. (Pixels) User Acc. (Pixels)</i>				
water	84.19	95.80	10029/11913	10029/10469
forest	98.05	97.64	81036/82649	81036/82993
bare	88.24	77.84	555/629	555/713
ice	98.83	99.94	7110/7194	7110/7114
wetland	62.59	53.93	425/679	425/788
agriculture	90.79	90.00	36630/40345	36630/40698
building	97.89	82.89	3671/3750	3671/4429

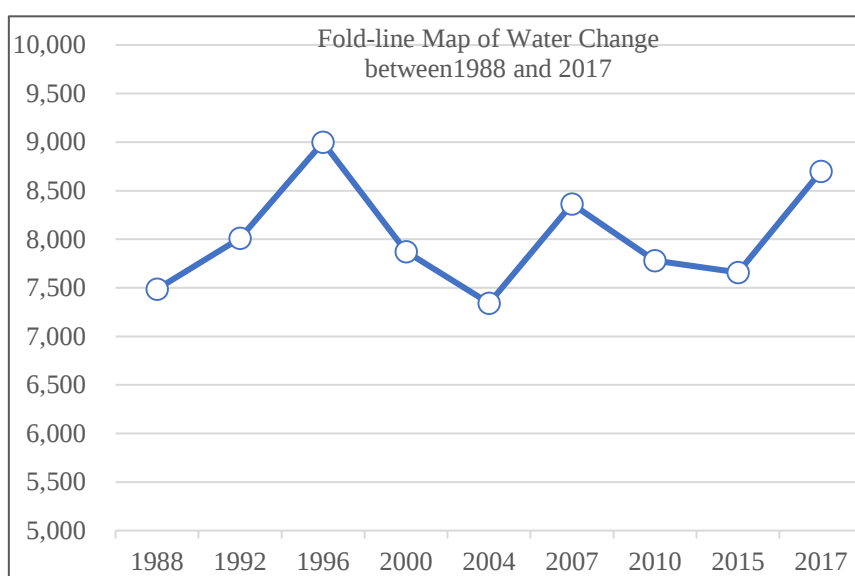


Figure S3. Fold/line Map of Water Change between 1988 and 2017.

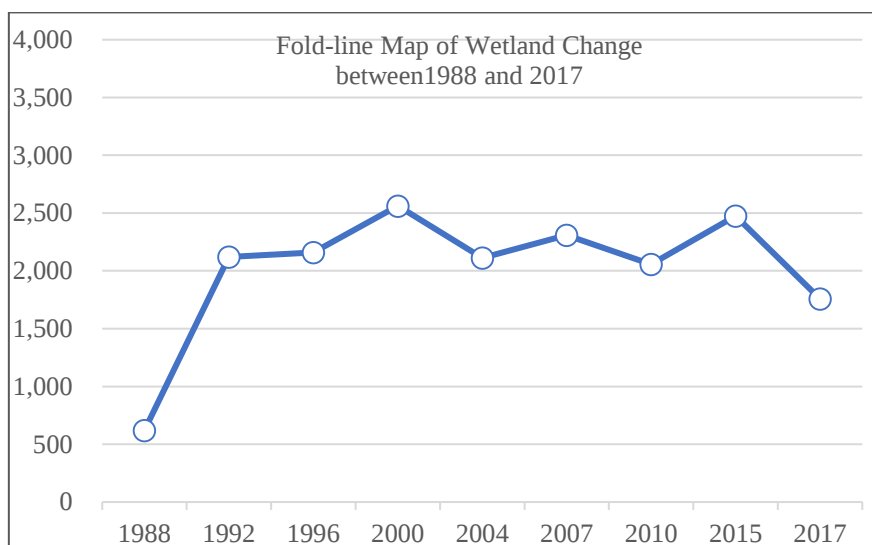


Figure S4. Fold/line Map of Wetland Change between 1988 and 2017.

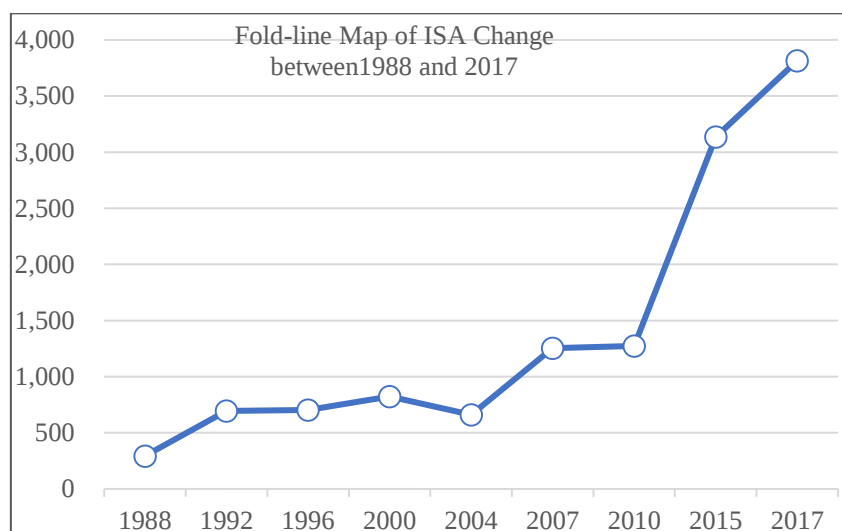


Figure S5. Fold/line Map of ISA Change between 1988 and 2017.

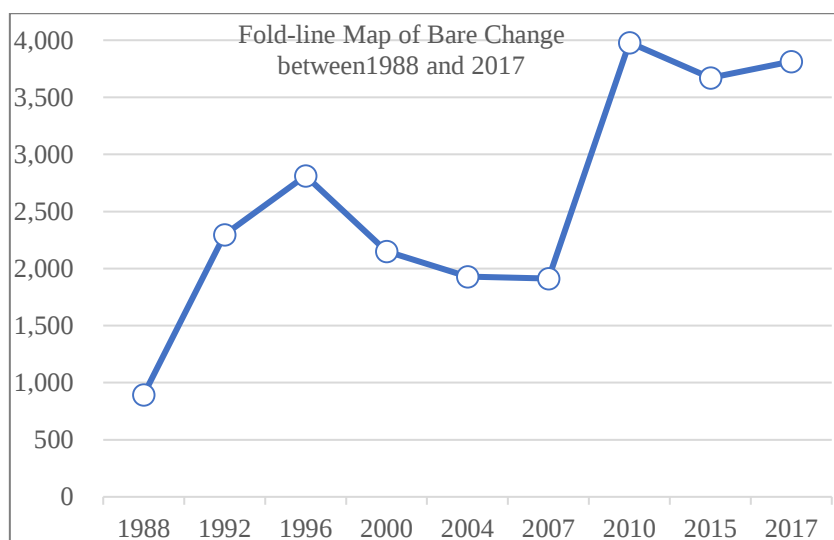


Figure S6. Fold/line Map of Bare Change between 1988 and 2017.

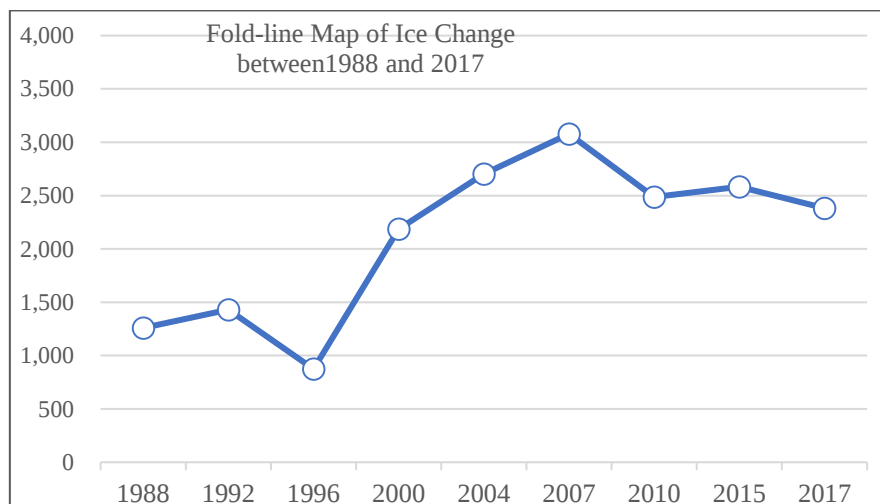


Figure S7. Fold/line Map of Ice Change between 1988 and 2017.

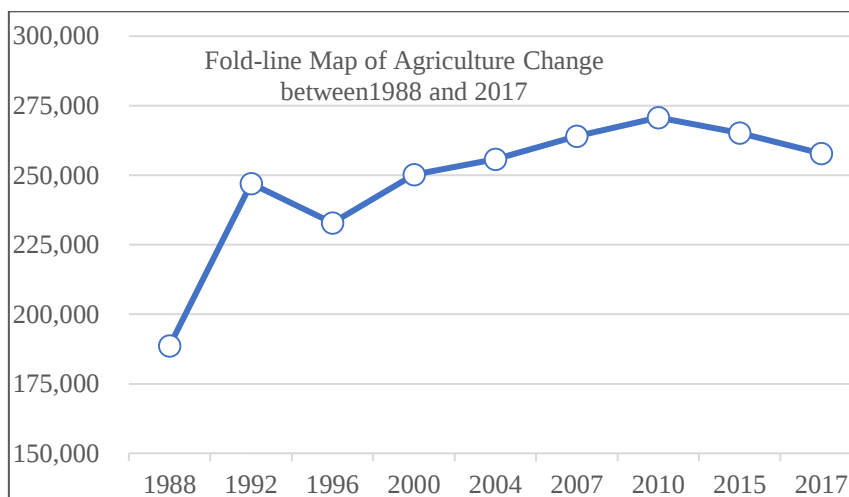


Figure S8. Fold/line Map of Agriculture Change between 1988 and 2017.

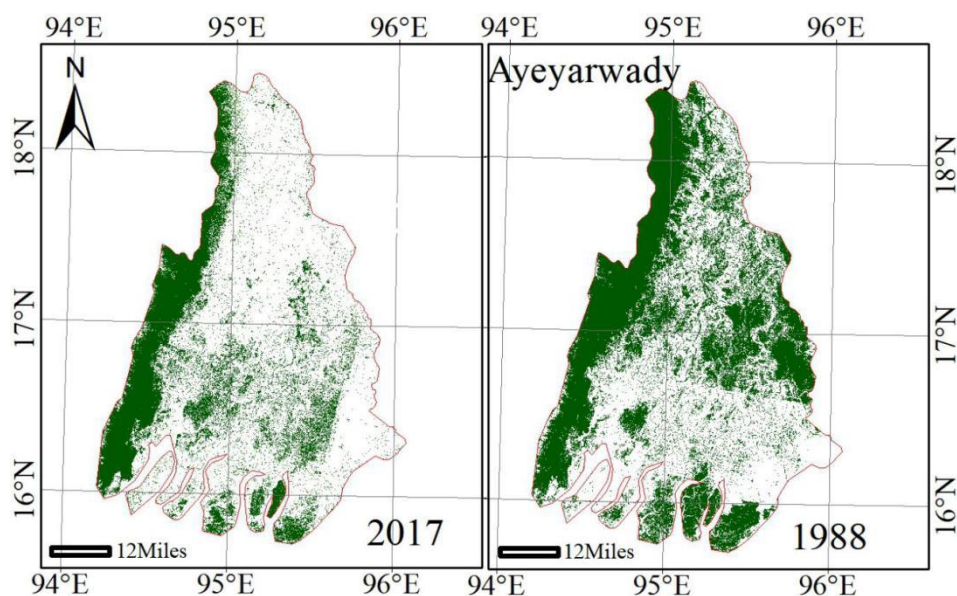


Figure S9. Spatial Distribution of Forests in Ayeyarwady Province between 1988 and 2017.

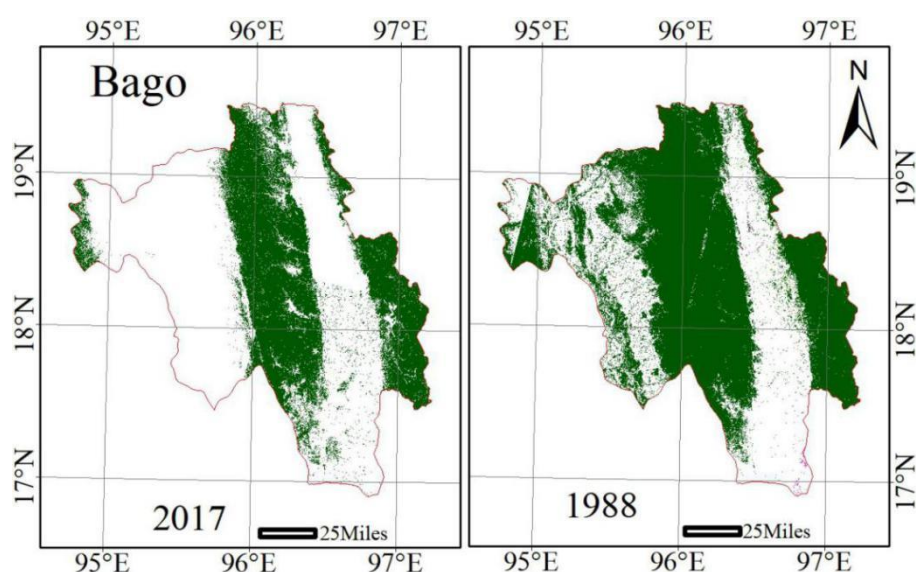


Figure S10. Spatial Distribution of Forests in Bago Province between 1988 and 2017.

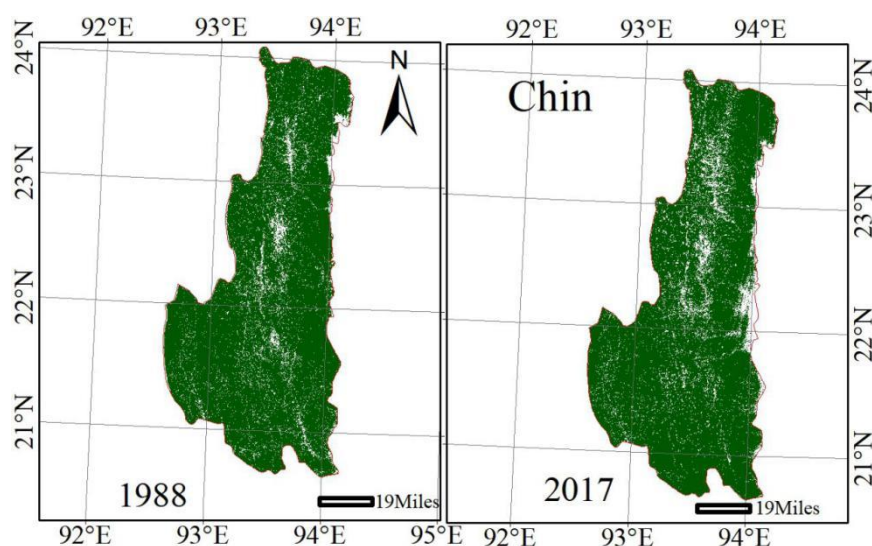


Figure S11. Spatial Distribution of Forests in Chin Province between 1988 and 2017.

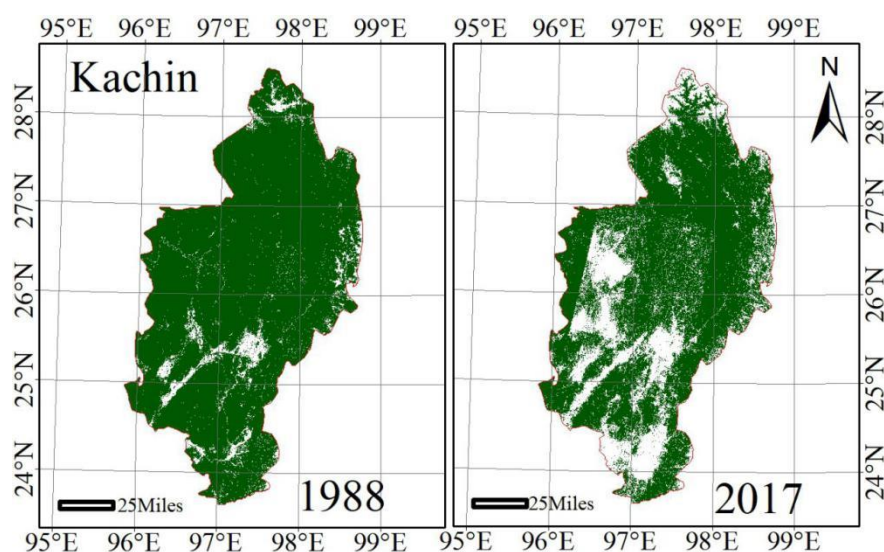


Figure S12. Spatial Distribution of Forests in Kachin Province between 1988 and 2017.

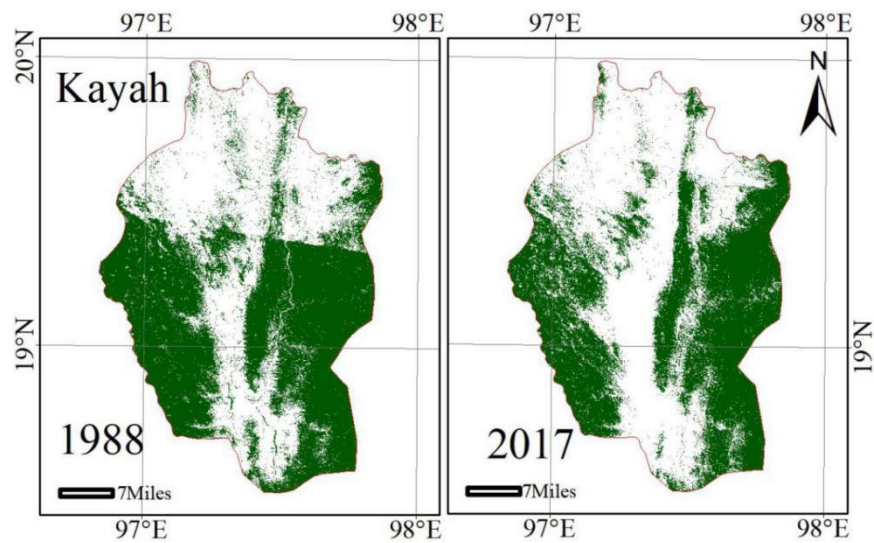


Figure S13. Spatial Distribution of Forests in Kayah Province between 1988 and 2017.

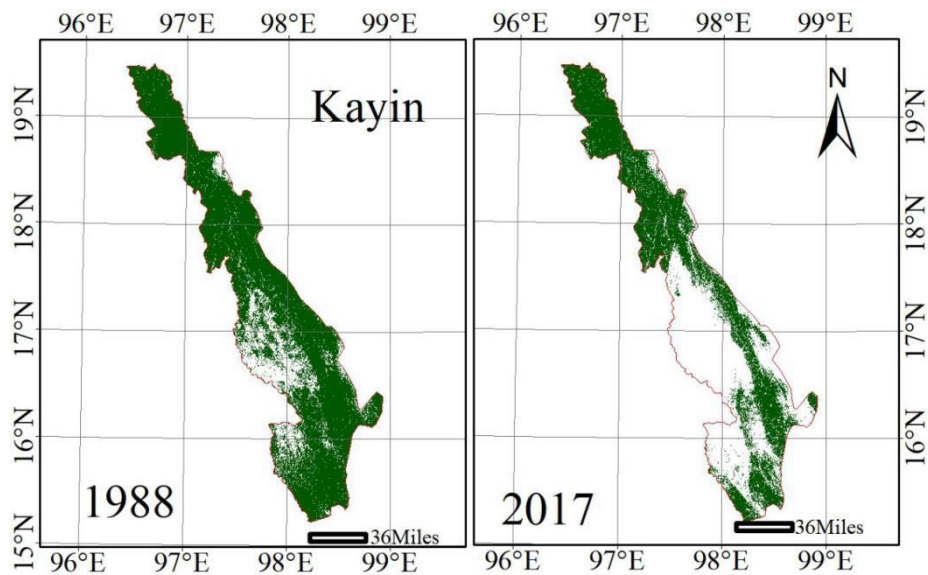


Figure S14. Spatial Distribution of Forests in Kayin Province between 1988 and 2017.

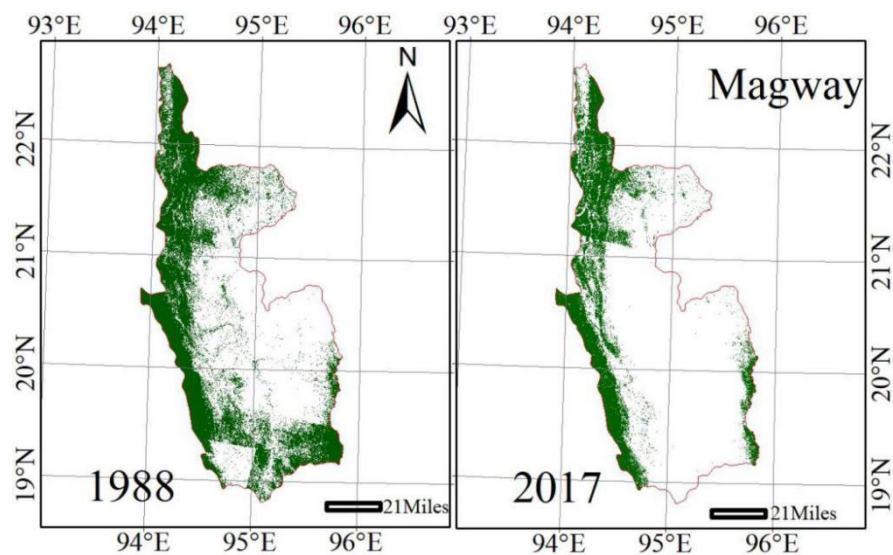




Figure S15. Spatial Distribution of Forests in Magway Province between 1988 and 2017.

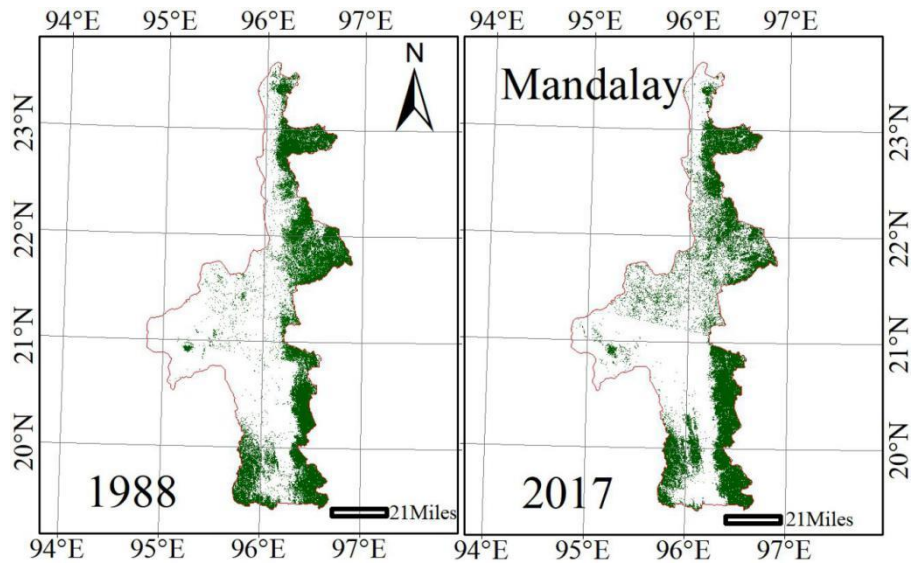


Figure S16. Spatial Distribution of Forests in Mandalay Province between 1988 and 2017.

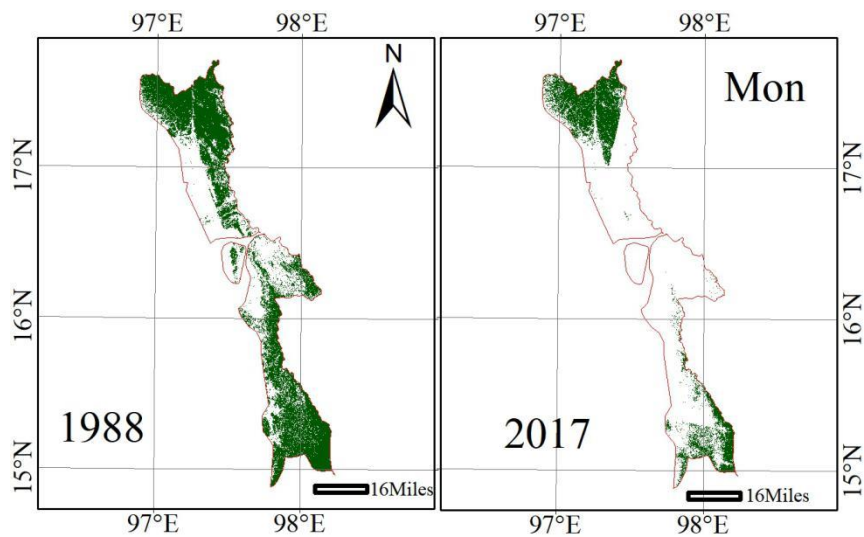


Figure S17. Spatial Distribution of Forests in Mon Province between 1988 and 2017.

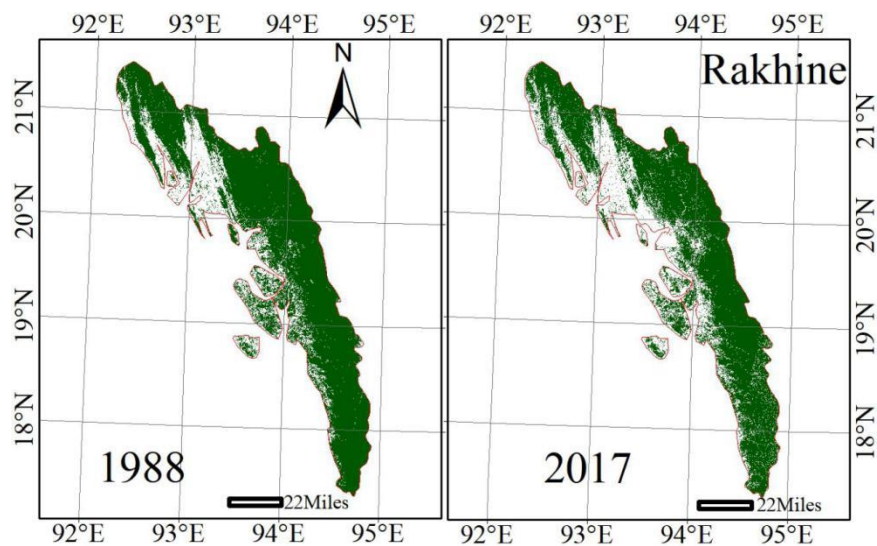


Figure S18. Spatial Distribution of Forests in Rakhine Province between 1988 and 2017.

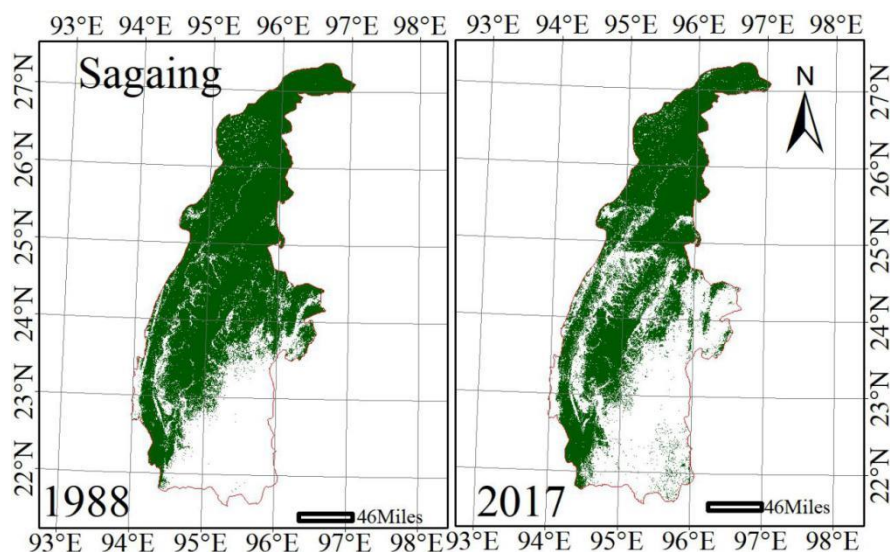


Figure S19. Spatial Distribution of Forests in Sagaing province between 1988 and 2017.

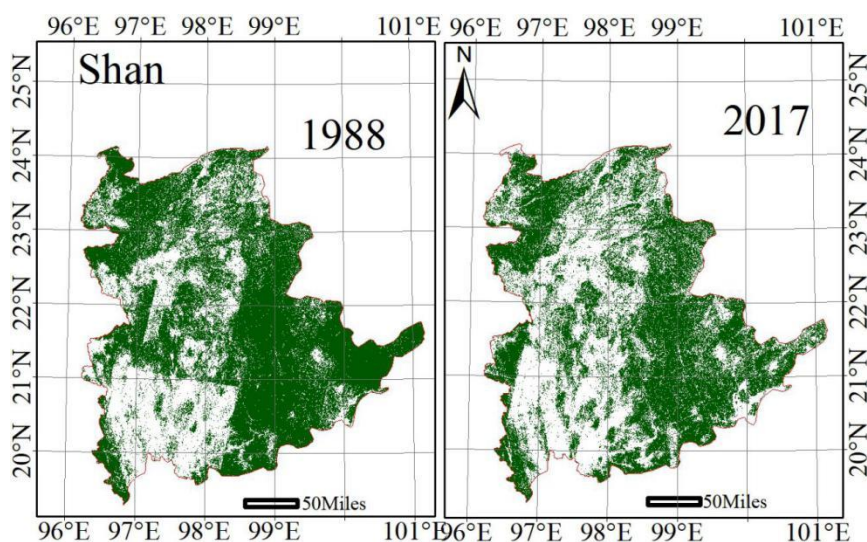


Figure S20. Spatial Distribution of Forests in Shan province between 1988 and 2017.

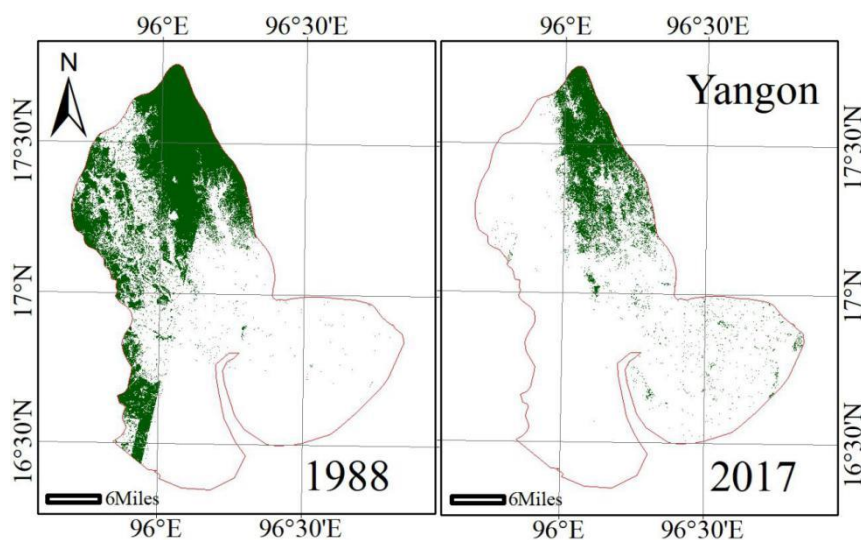


Figure S21. Spatial Distribution of Forests in Yangon province between 1988 and 2017.

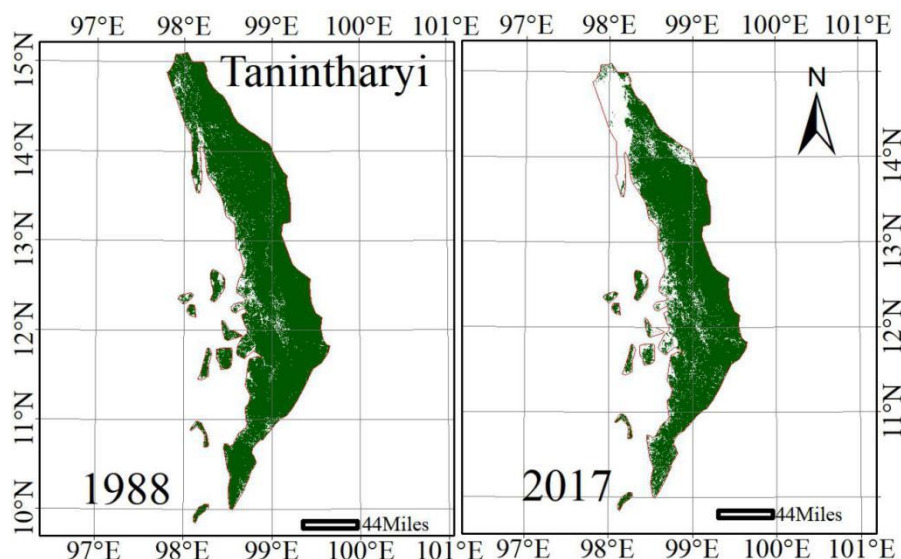


Figure S22. Spatial Distribution of Forests in Tanintharyi province between 1988 and 2017.

Table S4. Mutual conversion area between different land use types between 1988 and 2017 (unit: Pixel Counts).

1988–1992							
class	water	forest	wetland	agriculture	building	bare	ice
water	5,153,704	1,401,916	35,751	2,030,834	39,418	17,983	4,057
forest	894,293	377,301,408	274,959	16,136,591	12,122	631,380	724,523
wetland	50,176	1,872,301	363,672	64,050	14	2729	0
agriculture	1,906,964	78,936,896	15,102	179,906,384	231,718	530,382	2086
building	61,895	166,197	0	447,877	29,204	1217	0
bare	12,266	514,842	0	942	0	246,792	194,605
ice	7153	938,150	0	615	0	177,210	465,676
1992–1996							
class	water	forest	wetland	agriculture	building	bare	ice
water	4,832,700	1,025,099	743,797	3,062,364	91,682	4128	1461
forest	1,059,720	355,006,688	889,571	51,234,824	83,518	435,554	455,190
wetland	67,650	1,330,677	542,815	443,991	5149	18	0
agriculture	2,655,634	35,681,560	167,000	205,910,592	522,657	32,506	14,491
building	67,708	86,801	1128	536,703	28,742	0	0
bare	7747	1,409,317	0	41,731	1	444,120	633,828
ice	2531	408,107	0	131	8	69,129	483,836
1996–2000							
class	water	forest	wetland	agriculture	building	bare	ice
water	52,848	4,575,255	717,122	95,892	2,275,462	53,930	9602
forest	148,149	907,927	362,307,552	677,982	42,493,816	114,655	1,255,088
wetland	7991	772,312	1,725,025	1,058,726	388,936	1221	0
agriculture	150,722	3,342,339	54,255,816	553,009	206,223,712	494,409	34,347
building	2353	70,572	87,269	1013	603,051	69,309	135
bare	2025	7599	1,822,723	3	119,904	1320	947,867
ice	4,831	8,323	1,743,234	0	44,265	56	278,722

2000–2004							
class	water	forest	wetland	agriculture	building	bare	ice
water	4,733,777	1,031,786	117,658	2,012,603	58,535	8263	16,960
forest	687,935	350,607,328	1,960,810	44,066,240	76,456	1,821,151	397,420
wetland	141,516	547,072	1,235,755	400,428	2056	11	0
agriculture	2,070,951	53,686,740	566,451	220,938,864	617,314	124,197	39,971
building	42,750	126,093	2074	474,516	73,057	37	11
bare	12,261	1,143,539	1	230,310	6068	876,935	98,723
ice	22,362	758,055	0	2057	60	299,763	1,874,858
2004–2008							
class	water	forest	wetland	agriculture	building	bare	ice
water	5,022,543	1,070,336	97,834	2,870,276	33,938	20,182	2151
forest	691,134	337,425,472	802,743	37,632,736	61,534	913,212	95,219
wetland	90,881	1,050,495	968,728	405,191	3476	0	0
agriculture	1,950,828	48,197,492	446,426	231,874,720	502,806	141,461	2132
building	53,927	174,941	5872	990,678	118,268	859	111
bare	13,463	1,043,754	122	472,335	179	578,420	13,231
ice	27,405	1,925,168	0	93,786	22	716,020	2,867,311
2008–2011							
class	water	forest	wetland	agriculture	building	bare	ice
water	3,817,952	1,078,706	175,723	2,660,157	51,791	26,416	148,276
forest	995,217	325,876,704	973,403	48,257,456	192,059	1,386,034	2,060,759
wetland	126,660	598,569	994,837	53,3096	8174	0	0
agriculture	3,891,073	50,016,636	377,666	231,176,384	983,703	340,980	31,517
building	73903	164,717	20,235	1,005,095	104,666	4213	0
bare	8659	683,001	0	36,751	49	215,742	1,080,345
ice	5919	290,136	0	9099	0	121,117	2,282,524
2011–2014							
class	water	forest	wetland	agriculture	building	bare	ice
water	4,988,775	715,941	135,237	2,169,408	46,592	11,328	16,393
forest	827,666	309,217,600	661,086	43,027,848	162,799	66,1841	649,916
wetland	181,040	1,052,152	1,030,798	432,190	7253	0	0
agriculture	2,167,160	52,206,896	433,906	228,778,912	828,744	114,110	8506
building	69,371	627,633	10,467	2,297,235	305,707	17,627	1071
bare	36,747	2,972,229	410	203,343	562	907,303	287,610
ice	109,230	542,516	0	21,223	6	395,823	1,798,071
2014–2017							
class	water	forest	wetland	agriculture	building	bare	ice
water	3,694,098	2,256,124	51,466	3,339,668	31,088	25,190	21,299
forest	783,819	350,481,632	235,966	26,633,688	22,692	424,784	706,778
wetland	68,606	1,434,128	356,606	69,328	101	16,807	0
agriculture	3,083,714	101,480,584	36,761	169,101,824	229,716	624,007	31,605
building	163,093	1,128,153	2130	2,639,149	32,706	18,591	1159
bare	24,757	3,228,209	0	112,162	13	367,978	258,495
ice	19,354	2,164,229	0	878	0	79,540	368,203

```
begin node
name = "Node 1"
type = Decision
location = 1,1
expression = "b1 eq 2"
end node
```

```
begin node
name = "Class 0"
type = Result
location = 2,2
parent name = "Node 1"
parent decision = Yes
class value = 0
class rgb = 0,0,0
end node
```

```
begin node
name = "Node 2/1"
type = Decision
location = 2,1
parent name = "Node 1"
parent decision = No
expression = "b1 eq 1"
end node
```

```
begin node
name = "water"
type = Result
location = 3,2
parent name = "Node 2/1"
parent decision = Yes
class value = 1
class rgb = 0,0,255
end node
```

```
begin node
name = "Node 3/1"
type = Decision
location = 3,1
parent name = "Node 2/1"
parent decision = No
expression = "b1 eq 3"
end node
```

```
begin node
name = "forest"
type = Result
location = 4,2
parent name = "Node 3/1"
parent decision = Yes
class value = 2
class rgb = 0,89,0
end node
```

```
begin node
```

```
name = "Node 4/1"  
type = Decision  
location = 4,1  
parent name = "Node 3/1"  
parent decision = No  
expression = "b1 eq 4"  
end node
```

```
begin node  
name = "agriculture"  
type = Result  
location = 5,2  
parent name = "Node 4/1"  
parent decision = Yes  
class value = 4  
class rgb = 184,160,0  
end node
```

```
begin node  
name = "Node 5/1"  
type = Decision  
location = 5,1  
parent name = "Node 4/1"  
parent decision = No  
expression = "b1 eq 5"  
end node
```

```
begin node  
name = "Class 5"  
type = Result  
location = 6,2  
parent name = "Node 5/1"  
parent decision = Yes  
class value = 5  
class rgb = 255,0,255  
end node
```

```
begin node  
name = "Node 6/1"  
type = Decision  
location = 6,1  
parent name = "Node 5/1"  
parent decision = No  
expression = "b1 eq 7"  
end node
```

```
begin node  
name = "grass"  
type = Result  
location = 7,2  
parent name = "Node 6/1"  
parent decision = Yes  
class value = 7  
class rgb = 107,194,53  
end node
```

```
begin node
name = "bare "
type = Result
location = 7,1
parent name = "Node 6/1"
parent decision = No
class value = 8
class rgb = 255,218,4
end node
```

```
begin variable
variable name = "b1"
file name = "G:\miandian_2017_1\13443\whole"
file pos = 1
end variable
```

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```
begin node
name = "Node 1"
type = Decision
location = 1,1
expression = "b1 eq 6"
end node
```

```
begin node
name = "Class 0"
type = Result
location = 2,2
parent name = "Node 1"
parent decision = Yes
class value = 0
class rgb = 0,0,0
end node
```

```
begin node
name = "Node 2/1"
type = Decision
location = 2,1
parent name = "Node 1"
parent decision = No
expression = "b1 eq 1"
end node
```

```
begin node
name = "water"
type = Result
location = 3,2
parent name = "Node 2/1"
parent decision = Yes
class value = 1
class rgb = 0,0,255
end node
```

```
begin node
name = "Node 3/1"
```

```

type = Decision
location = 3,1
parent name = "Node 2/1"
parent decision = No
expression = "b1 eq 2"
end node

```

```

begin node
name = "forest"
type = Result
location = 4,2
parent name = "Node 3/1"
parent decision = Yes
class value = 2
class rgb = 0,89,0
end node

```

```

begin node
name = "Node 4/1"
type = Decision
location = 4,1
parent name = "Node 3/1"
parent decision = No
expression = "b1 eq 4"
end node

```

```

begin node
name = "agriculture"
type = Result
location = 5,2
parent name = "Node 4/1"
parent decision = Yes
class value = 4
class rgb = 184,160,0
end node

```

```

begin node
name = "Node 5/1"
type = Decision
location = 5,1
parent name = "Node 4/1"
parent decision = No
expression = "b1 eq 3"
end node

```

```

begin node
name = "bare"
type = Result
location = 6,2
parent name = "Node 5/1"
parent decision = Yes
class value = 8
class rgb = 255,218,4
end node

```

```

begin node

```

```
name = "Node 6/1"  
type = Decision  
location = 6,1  
parent name = "Node 5/1"  
parent decision = No  
expression = "b1 eq 5"  
end node
```

```
begin node  
name = "building"  
type = Result  
location = 7,2  
parent name = "Node 6/1"  
parent decision = Yes  
class value = 5  
class rgb = 255,0,255  
end node
```

```
begin node  
name = "ice"  
type = Result  
location = 7,1  
parent name = "Node 6/1"  
parent decision = No  
class value = 9  
class rgb = 0,255,255  
end node
```

```
begin variable  
variable name = "b1"  
file name = "G:\miandian_2017_1\13443\whole"  
file pos = 1  
end variable
```