Table S1. VC*i* of different ecosystems (dollars/ha).

Ecosystem services	Paddy	Dry farmland	Forest	Grassland	Water	Marsh
Gas regulation	513.88	310.18	883.09	558.63	219.90	879.62
Climate regulation	263.89	166.66	2642.32	1476.83	655.08	1666.64
Hydrological regulation	1259.24	125.00	1729.14	1081.77	25316.75	11217.42
Soil conservation	4.63	476.84	1075.22	680.55	430.55	1069.43
Biodiversity maintenance	97.22	60.18	979.15	618.82	592.58	3643.46
Agricultural products	629.62	393.51	116.90	101.91	370.36	236.11
Raw materials	41.67	185.18	268.51	158.95	106.48	231.48
Freshwater supply	−1217.57	9.26	138.89	87.96	24507.81	1199.06
Relaxation	41.67	27.78	427.69	273.14	458.33	2189.78

Note: VC*i* is the ecosystem service value per unit area of the *i*th ecosystem.

Table S2. Loss and gain of paddy during different time periods (ha).

Time periods	Paddy	Dry farmland	Forest	Grassland	Water	Settlement	Marsh	Other
1965–1995	Loss	0	0	0	0	0	0	0
	Gain	2366.25	301.61	14781.08	0.1	0.35	18963.58	0
1995–2015	Loss	1966.55	472.3	614.01	19.92	303.28	218.2	0
	Gain	522877.29	189852.52	1720.72	271.38	1373.48	131257.69	447.23

Note: Other represents other unused land.

Table S3. Loss and gain of dry farmland during different time periods (thousand ha).

Time periods	Dry farmland	Paddy	Forest	Grassland	Water	Settlement	Marsh	Other
1965–1995	Loss	2.37	4.43	0.11	0.01	2.04	2.65	0.05
	Gain	0	19.78	222.90	0.30	0.18	366.93	0.002
1995–2015	Loss	522.88	11.23	13.81	0.38	5.56	8.76	28.80
	Gain	1.97	42.17	1.74	0.26	0.77	61.11	2.85

Note: Other represents other unused land.

Table 4. ESV changes per unit area caused by land-use changes related to paddy (million dollar).

To Paddy	Dry farmland	Forest	Grassland	Water	Settlement	Wetland	Other
Gas regulation	203.70	−369.21	−44.75	293.98	513.88	−365.74	513.88
Climate regulation	97.23	−2378.43	−1212.94	−391.19	263.89	−1402.75	263.89
Hydrological regulation	1134.24	−469.90	177.47	−24057.51	1259.24	−9958.18	1259.24
Soil conservation	−472.21	−1070.59	−675.92	−425.92	4.63	−1064.80	4.63
Biodiversity maintenance	37.04	−881.93	−521.60	−495.36	97.22	−3546.24	97.22
Agricultural products	236.11	512.72	527.71	259.26	629.62	393.51	629.62
Raw materials	−143.51	−226.84	−117.28	−64.81	41.67	−189.81	41.67
Freshwater supply	−1226.83	−1356.46	−1305.53	−25725.38	−1217.57	−2416.63	−1217.57
Relaxation	13.89	−386.02	−231.47	−416.66	41.67	−2148.11	41.67

Table S5. ESV changes per unit area caused by land-use changes related to dry farmland (million dollar).

To Dry farmland	Paddy	Forest	Grassland	Water	Settlement	Wetland	Other
Gas regulation	−203.70	−572.91	−248.45	90.28	310.18	−569.43	310.18
Climate regulation	−97.23	−2475.66	−1310.17	−488.42	166.66	−1499.98	166.66
Hydrological regulation	−1134.24	−1604.14	−956.78	−25191.75	125.00	−11092.42	125.00
Soil conservation	472.21	−598.37	−203.70	46.30	476.84	−592.58	476.84
Biodiversity maintenance	−37.04	−918.97	−558.63	−532.40	60.18	−3583.28	60.18
Agricultural products	−236.11	276.62	291.60	23.15	393.51	157.40	393.51
Raw materials	143.51	−83.33	26.23	78.70	185.18	−46.30	185.18
Freshwater supply	1226.83	−129.63	−78.70	−24498.55	9.26	−1189.80	9.26
Relaxation	−13.89	−399.92	−245.37	−430.55	27.78	−2162.00	27.78

Table S6. ESV changes caused by paddy expansion since 1965 (million dollars).

Ecosystem Function	1965–1995	1995–2015	Total
Gas regulation	27.15	629.56	656.71
Climate regulation	−173.34	−4018.68	−4192.02
Hydrological	−1116.25	−25879.48	−26995.73
Soil conservation	−134.73	−3123.71	−3258.44
Biodiversity	−189.84	−4401.40	−4591.25
Agricultural	116.10	2691.80	2807.90
Raw materials	−23.99	−556.26	−580.25
Freshwater supply	−1255.01	−29096.38	−30351.38
Relaxation	−112.34	−2604.40	−2716.74
Total	−2862.25	−66358.96	−69221.20

Table S7. ESV changes caused by dry farmland changes since 1965 (million dollars).

Ecosystem Function	1965–1995	1995–2015	Total
Gas regulation	−531.03	424.74	−106.30
Climate regulation	−3327.39	2661.33	−666.05
Hydrological	−23870.00	19091.87	−4778.13
Soil conservation	46.59	−37.26	9.33
Biodiversity	−3310.46	2647.80	−662.66
Agricultural	780.87	−624.56	156.31
Raw materials	293.91	−235.08	58.83
Freshwater supply	−14810.90	11846.16	−2964.74
Relaxation	−1920.31	1535.92	−384.39
Total	−46648.72	37310.91	−9337.81