

## **Supplementary Materials**

### **Estimating Actual Evapotranspiration Over Croplands Using Vegetation Index Methods And Dynamic Harvested Area**

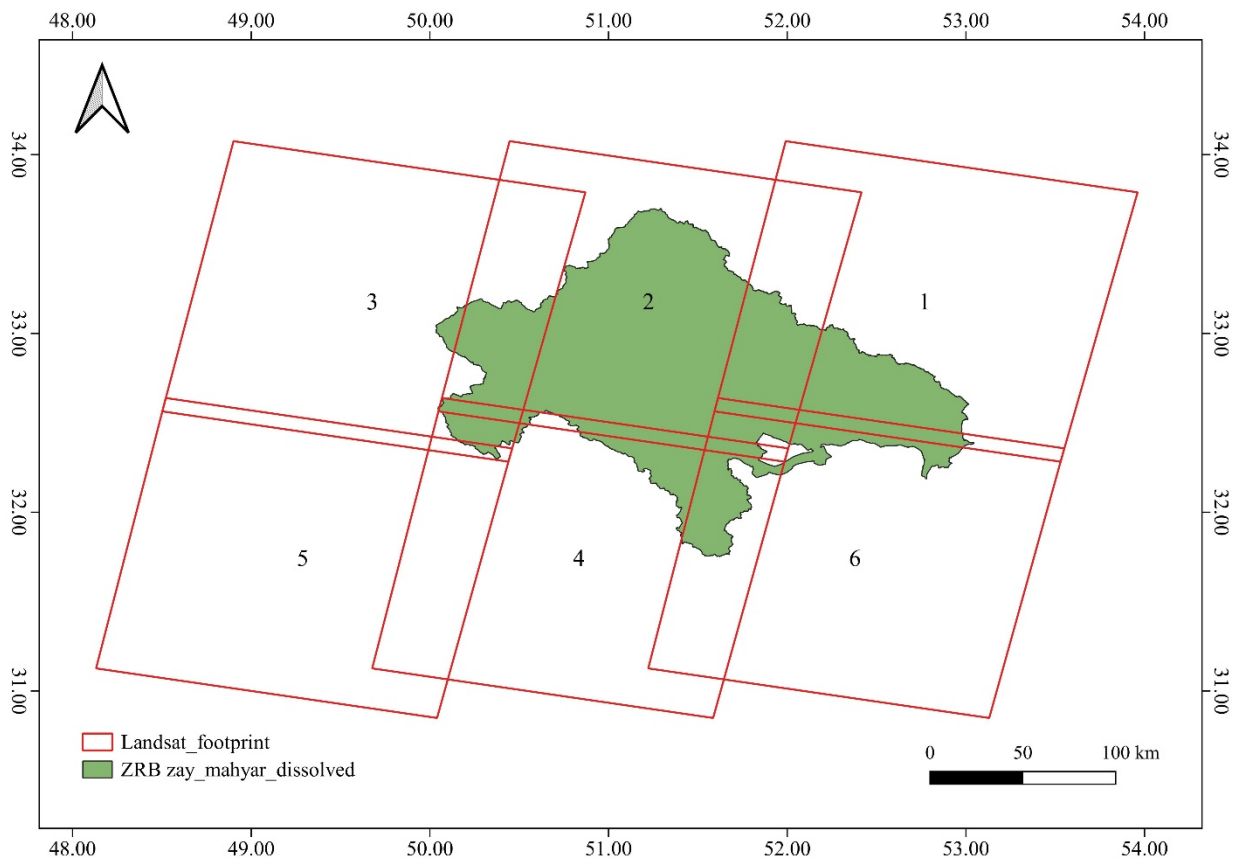
**Abbasi, et al.**

#### **Includes:**

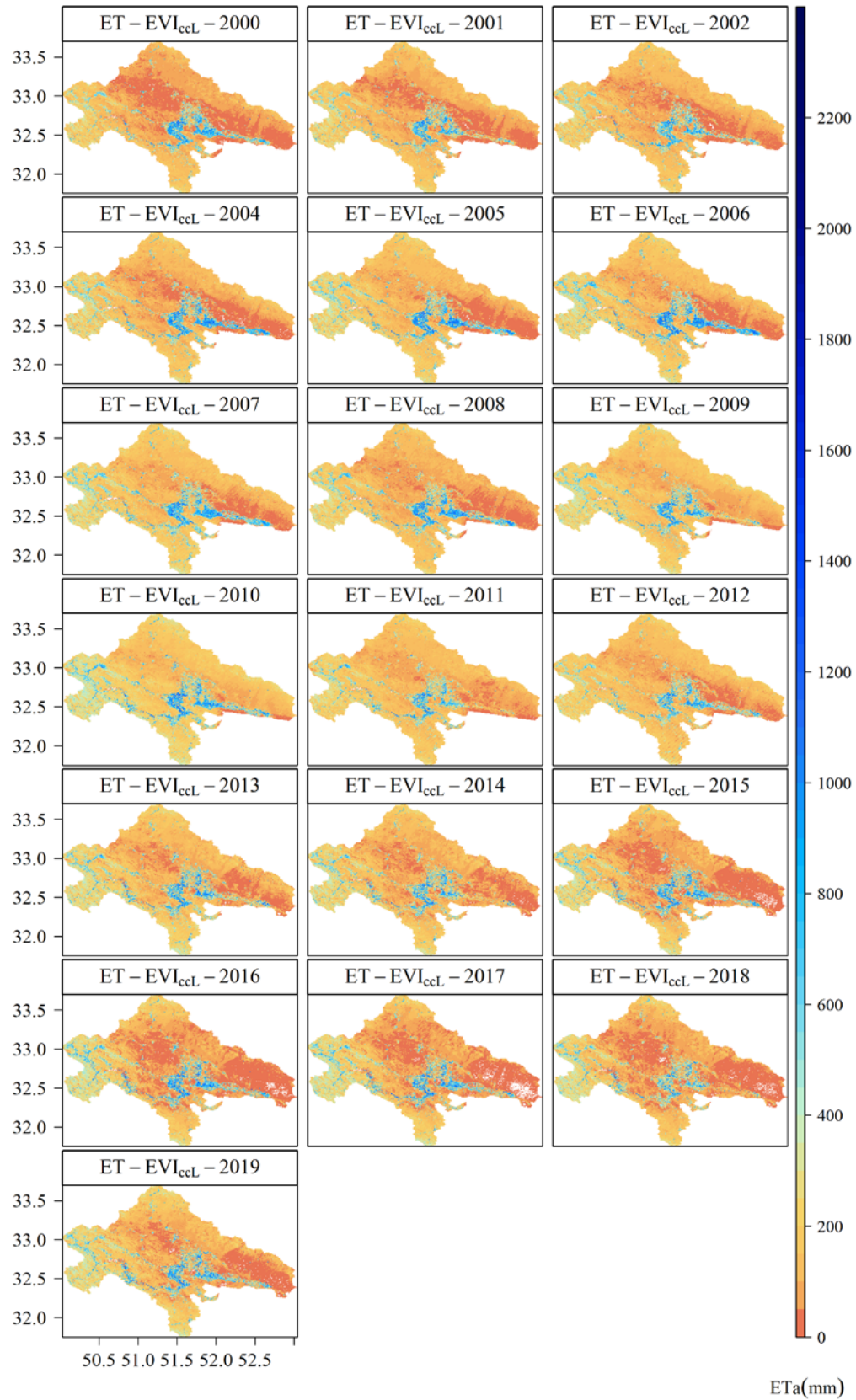
**Figures S1-S11**

**Table S1**

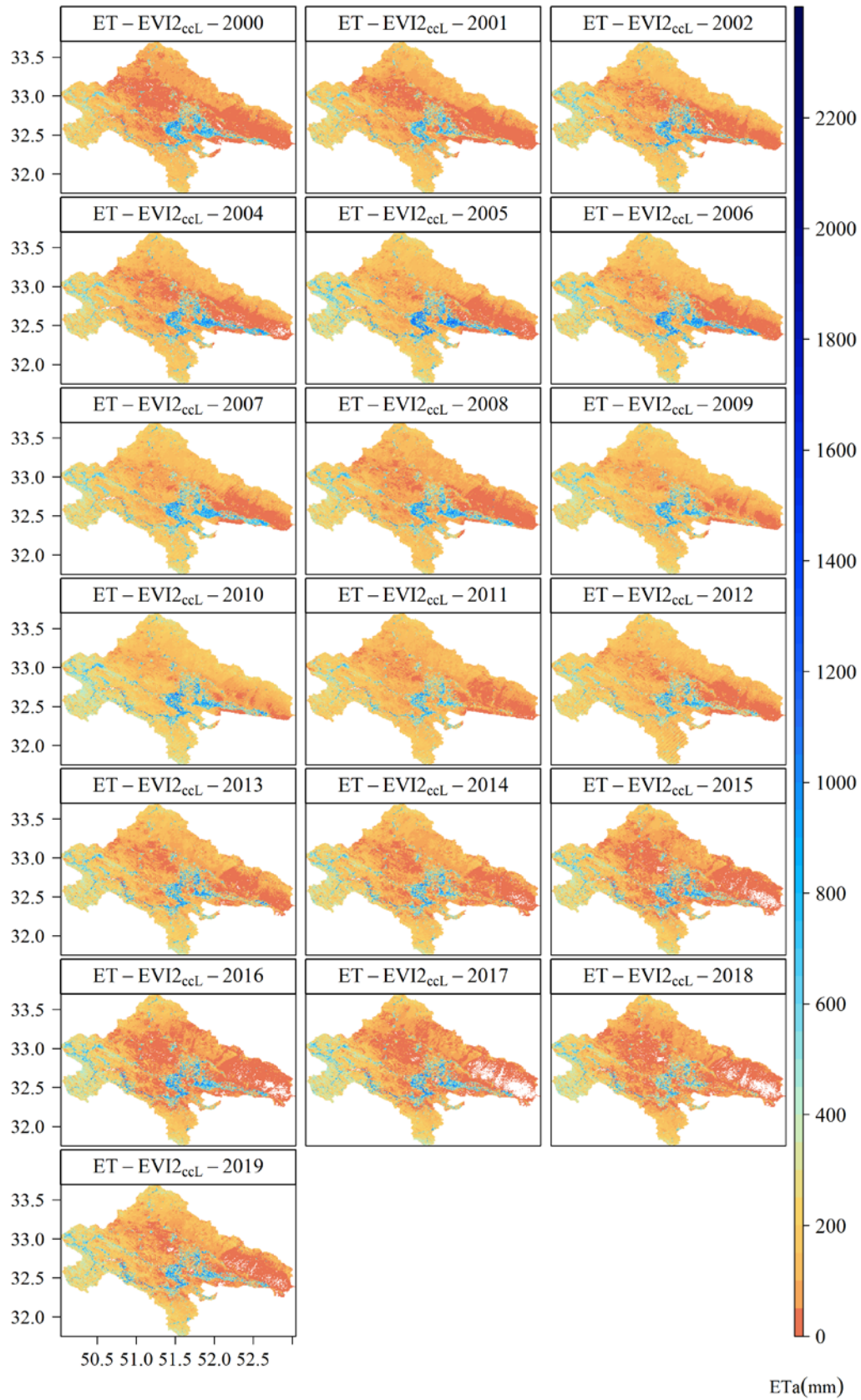
Acronyms: ET-EVI2<sub>MccL</sub> and ET-EVI<sub>MccL</sub>: ET calculated using 2- and 3-band Enhanced Vegetation Index (MODIS continuity corrected Landsat) respectively; ET-EVI2<sub>ccL</sub> and ET-EVI<sub>ccL</sub>: ET calculated using 2- and 3-band Enhanced Vegetation Index (continuity-corrected Landsat) respectively.



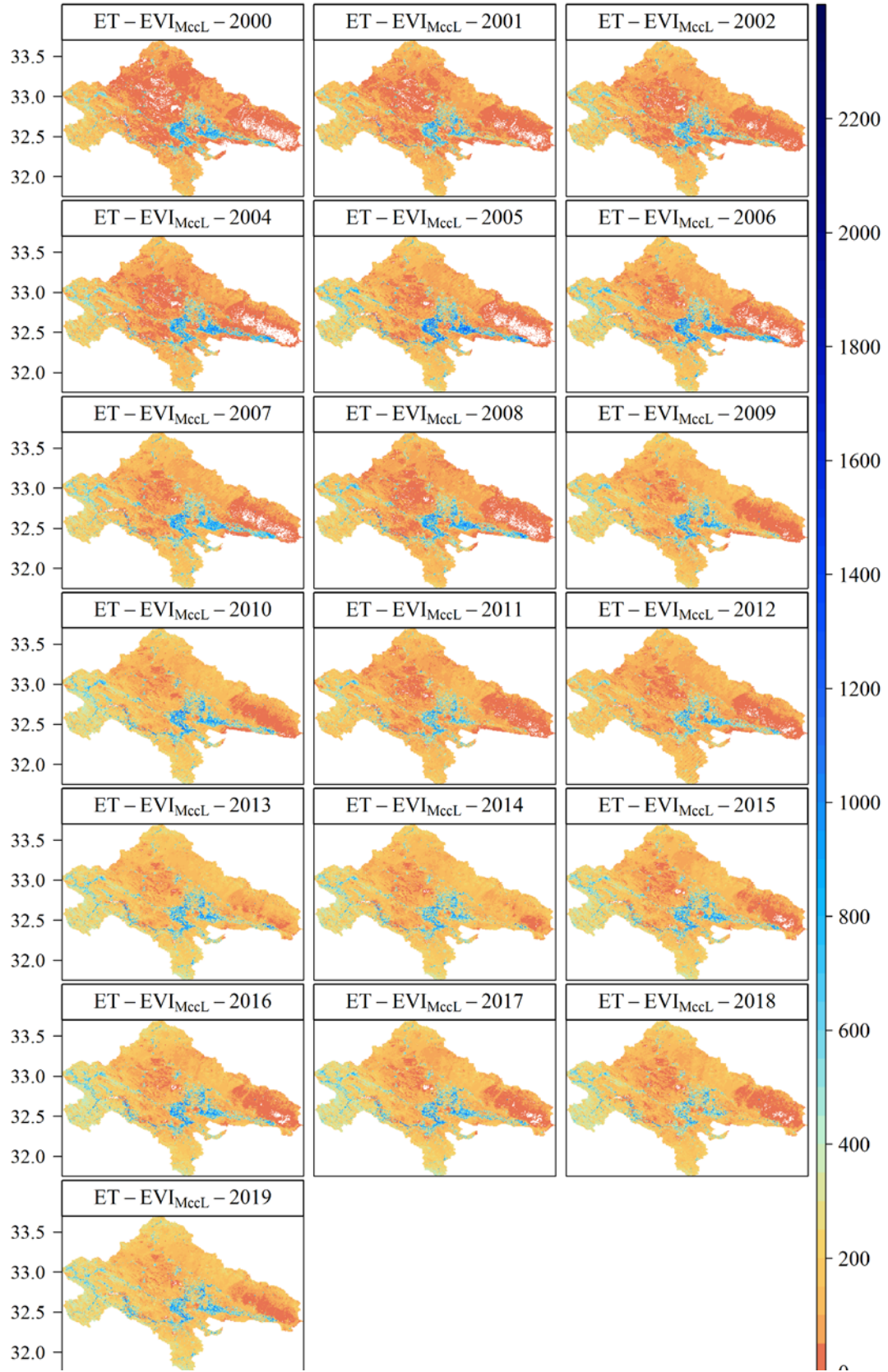
**Figure S1.** Landsat footprint. Five tiles (1,2,3,4,6) with maximum coverage of the study area were used.



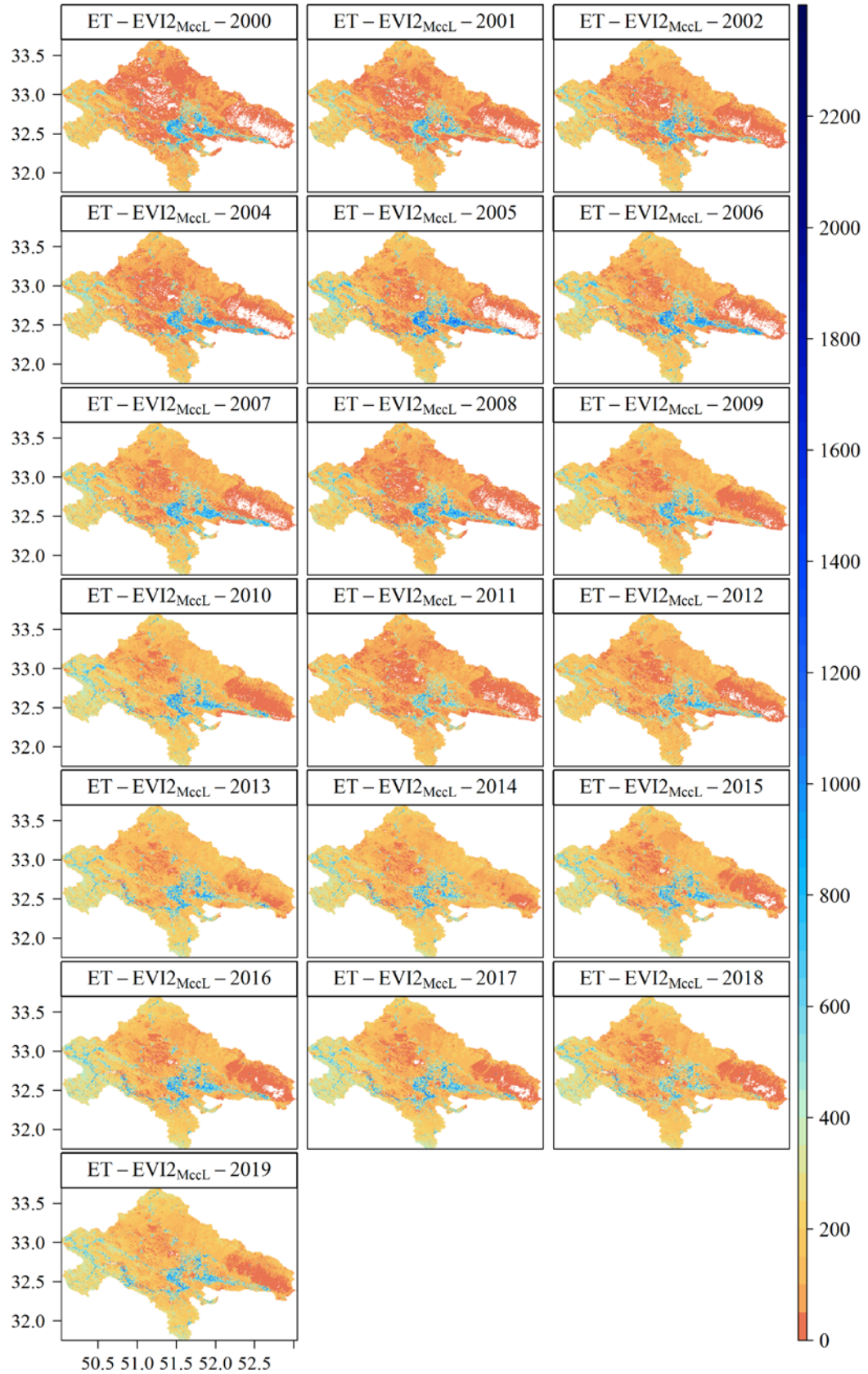
**Figure S2.** Annual maps of ET-EVI<sub>ccL</sub>.



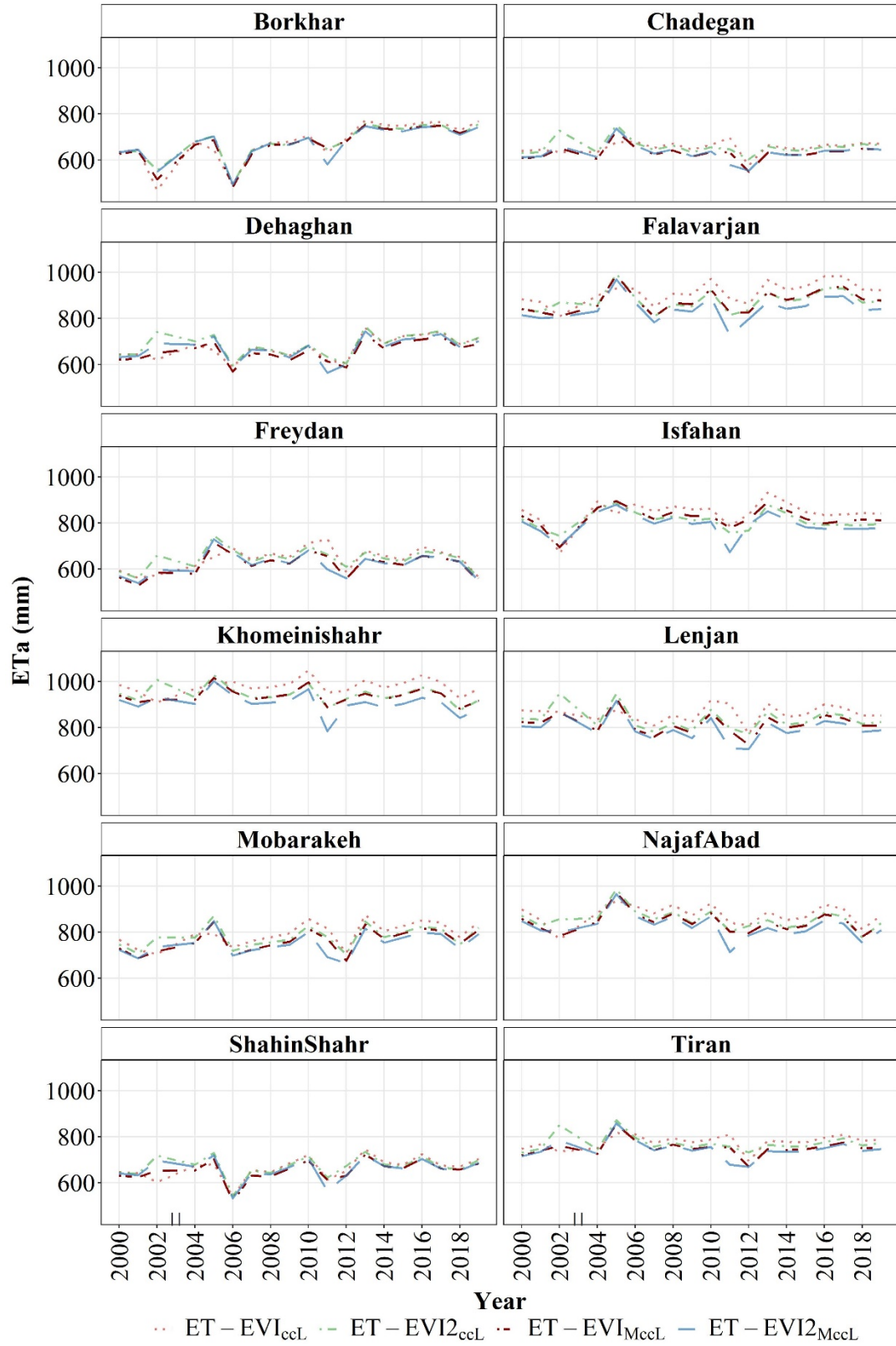
**Figure S3.** Annual maps of ET-EVI2<sub>ccL</sub>.



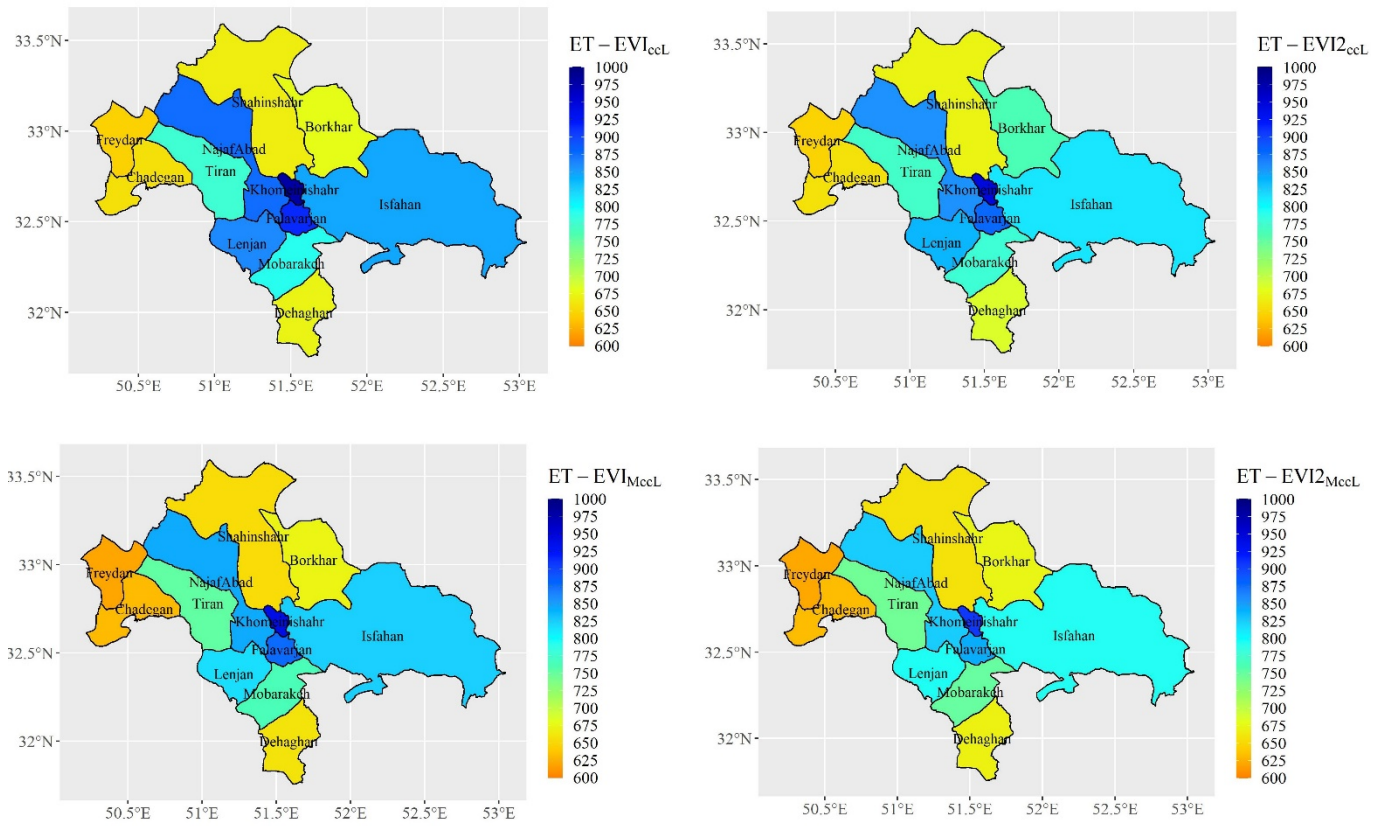
**Figure S4.** Annual maps of ET-EVI<sub>McclL</sub>.



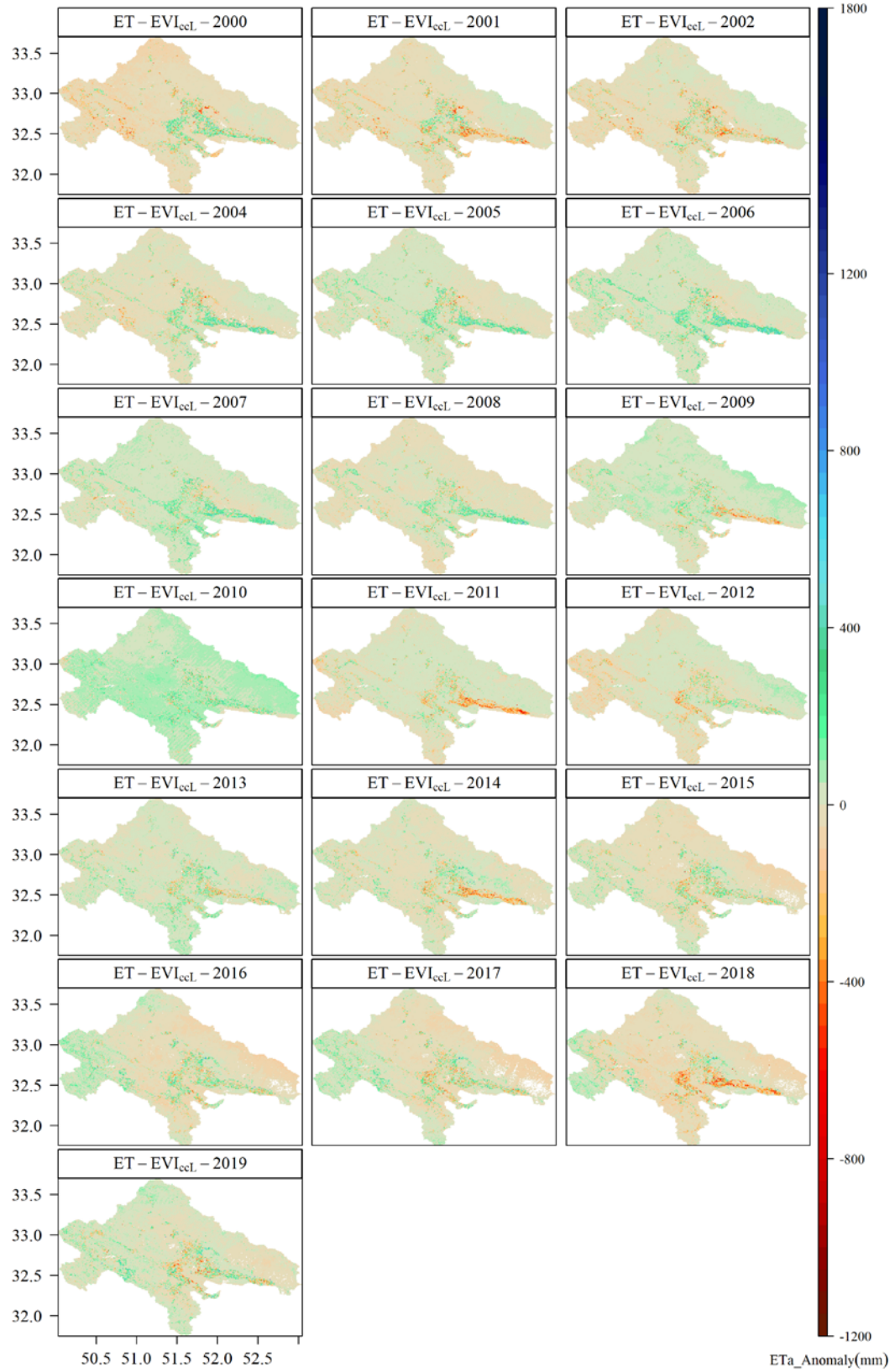
**Figure S5.** Annual maps of ET-EVI2<sub>McCL</sub>.



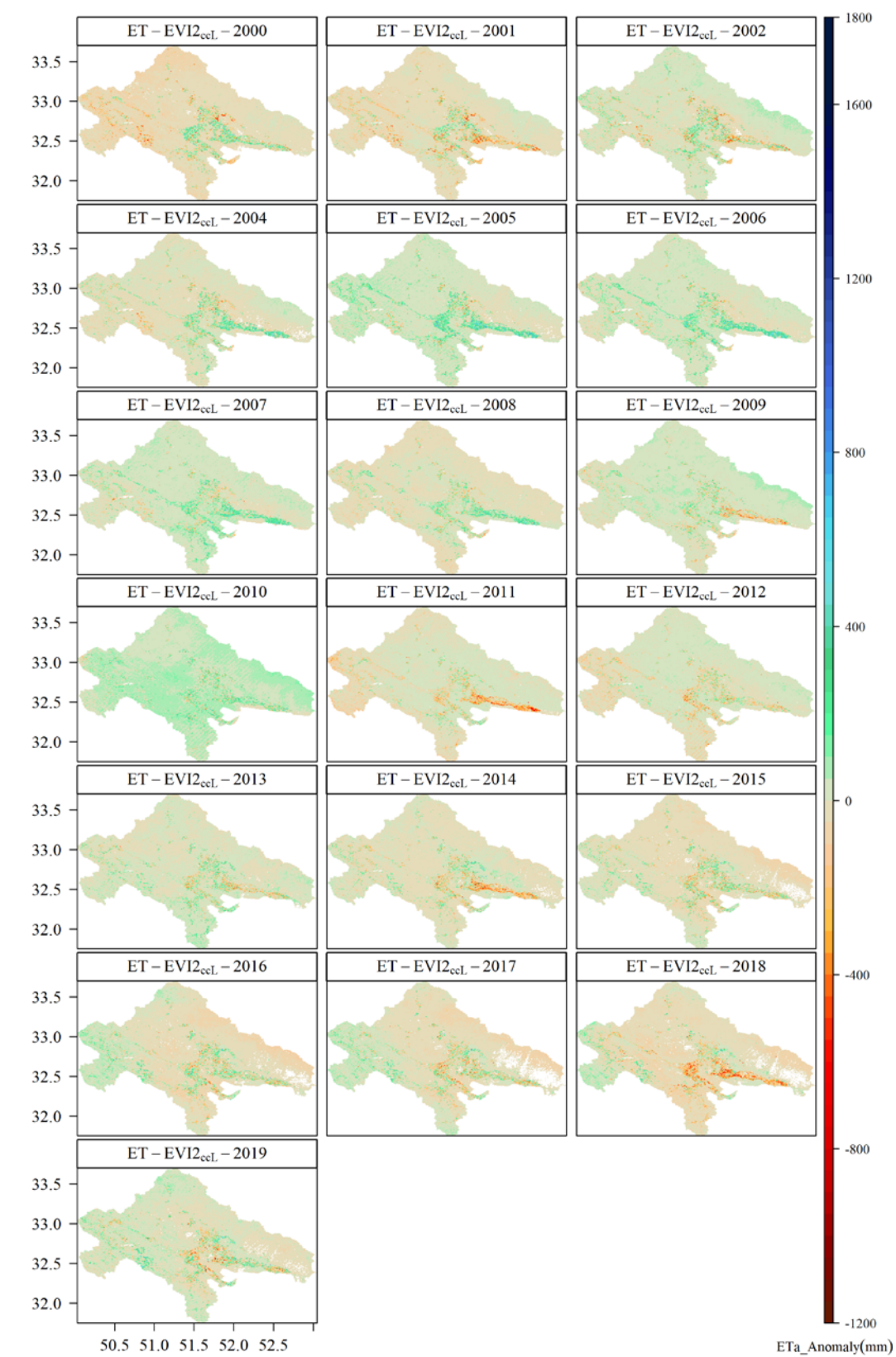
**Figure S6.** Annual graph of ET-VIs at county scale.



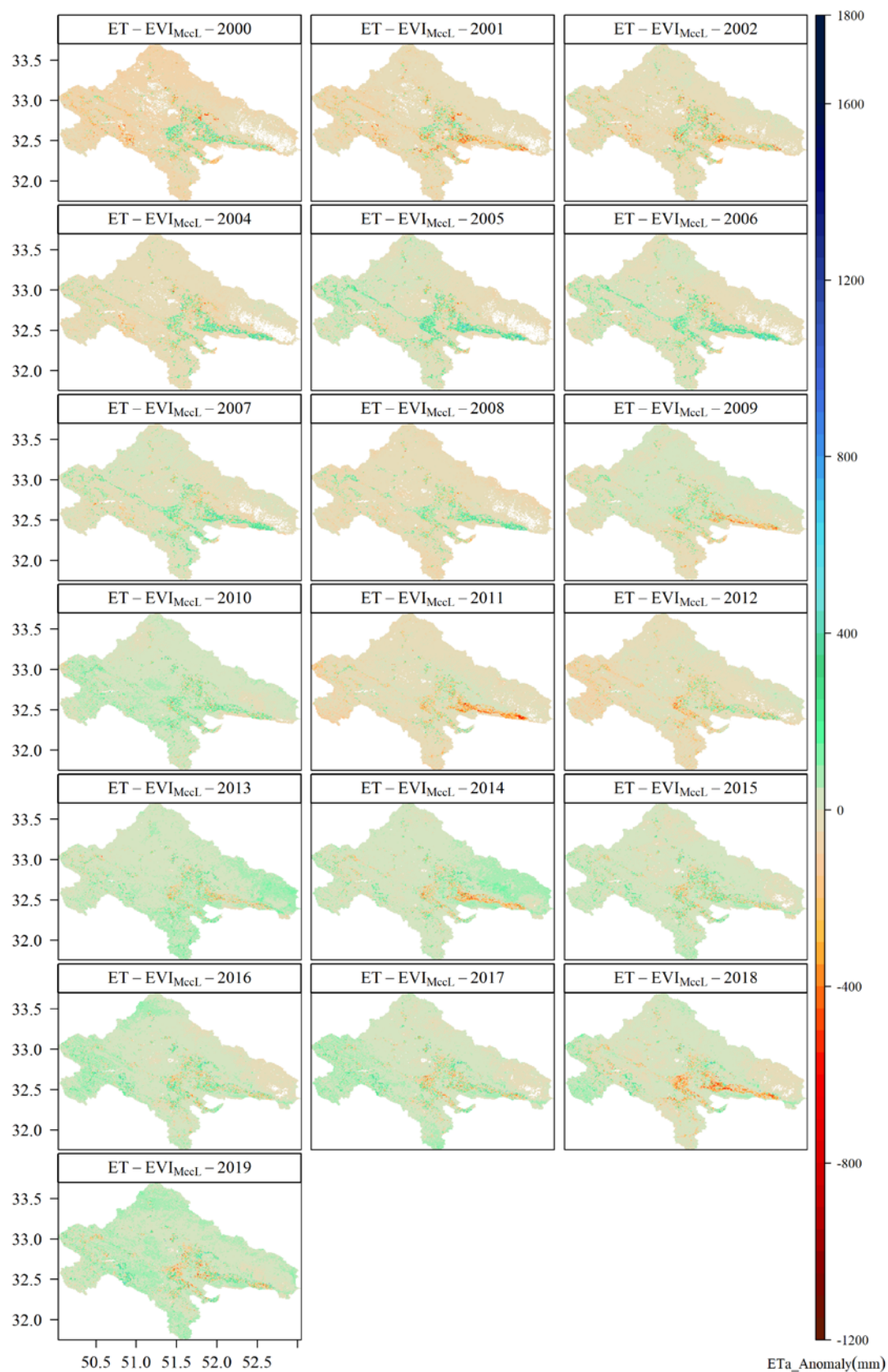
**Figure S7.** Long-term average ET-VIs at county scale.



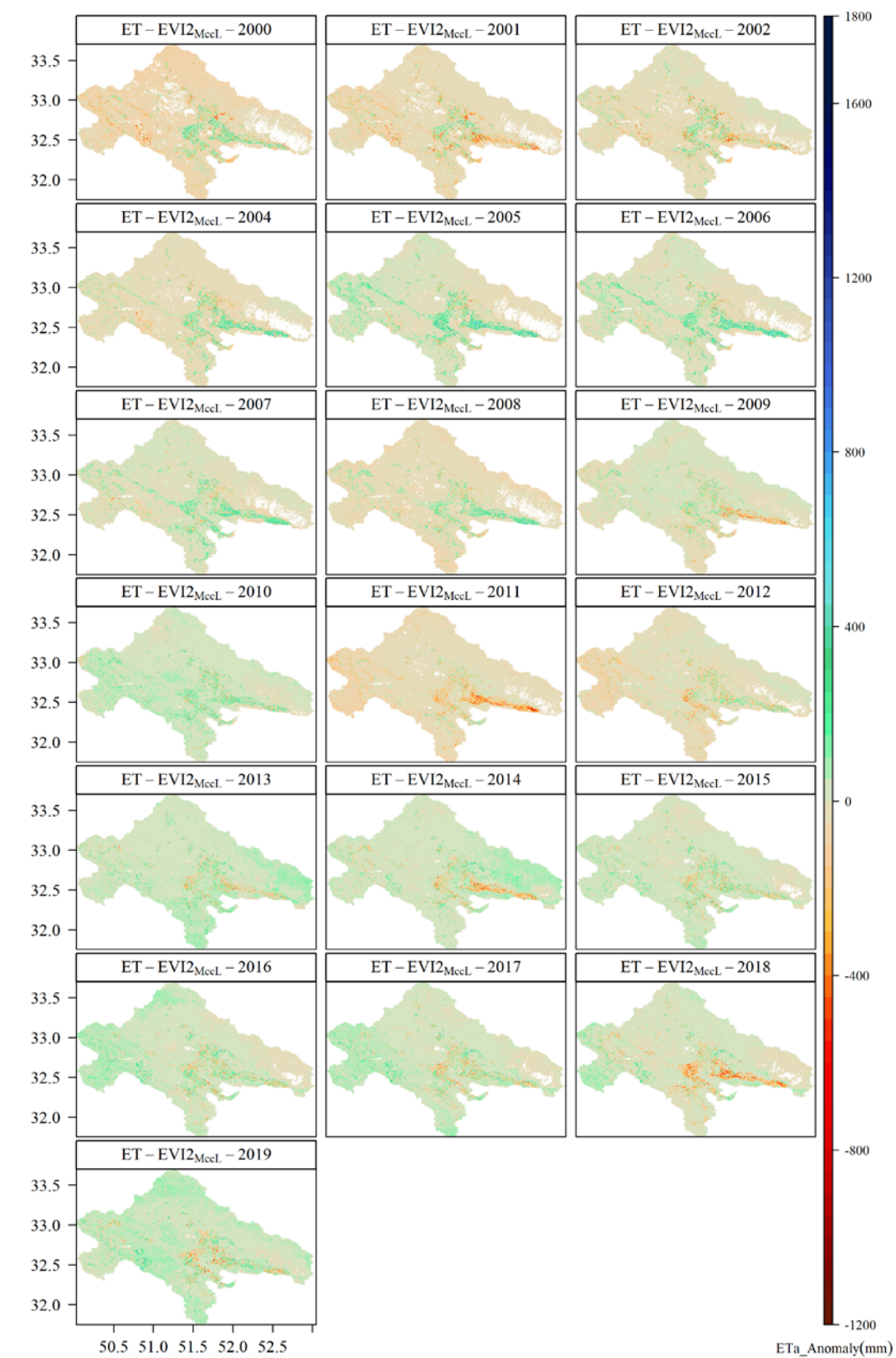
**Figure S8.** Annual anomaly maps of ET-EVI<sub>cL</sub>.



**Figure S9.** Annual anomaly maps of ET-EVI2<sub>ccl</sub>.



**Figure S10.** Annual anomaly maps of  $ET - EVI_{Mccl.}$ .



**Figure S11.** Annual anomaly maps of ET-EVI2<sub>McCL</sub>.

**Table S1.** Minimum, maximum, and long-term average of ET-VIs. Blue, orange, and green colors show the highest maximum, lowest minimum, and highest average ET-VIs estimates 1: Tiran, 2: Freydan, 3: Chadegan, 4: Isfahan, 5: Mobarakeh, 6: Borkhar, 7: Khomeinishahr, 8: Shahinshahr, 9: Falavarjan, 10: Lenjan, 11: Dehaghan, 12: NajafAbad. ET-EVI<sub>2MccL</sub> and ET-EVI<sub>MccL</sub>: ET calculated using 2- and 3-band Enhanced Vegetation Index (MODIS continuity corrected Landsat) respectively; ET-EVI<sub>2ccL</sub> and ET-EVI<sub>ccL</sub>: ET calculated using 2- and 3-band Enhanced Vegetation Index (continuity-corrected Landsat) respectively.

ET-VI	Parameter	Basin	1	2	3	4	5	6	7	8	9	10	11	12
ET-EVI <sub>ccL</sub>	Max	827	81 7	73 0	69 6	93 2	87 6	77 2	104 8	74 7	98 5	91 9	75 8	93 7
	Min	644	69 5	57 4	57 6	66 8	70 4	49 2	910	54 0	80 9	77 3	58 8	76 9
	Average	778	77 8	64 5	65 6	84 5	79 2	67 8	979	66 6	91 4	86 1	67 2	87 6
ET-EVI <sub>2ccL</sub>	Max	854	87 1	74 5	75 3	89 0	87 1	75 7	102 8	73 4	99 5	94 9	76 4	98 7
	Min	714	73 0	56 0	60 4	74 4	70 5	49 4	875	54 2	81 0	77 3	59 7	77 5
	Average	762	77 2	64 6	65 7	81 2	77 9	68 0	945	67 2	87 7	83 7	68 5	85 6
ET-EVI <sub>MccL</sub>	Max	841	85 7	71 6	72 6	89 5	84 6	75 3	101 8	72 3	99 0	92 8	73 1	97 3
	Min	654	66 9	52 9	54 9	69 5	67 6	48 3	883	52 0	80 8	72 6	56 9	78 1
	Average	752	75 2	62 1	63 2	82 4	76 3	67 3	937	65 3	87 7	81 6	65 8	84 4
ET-EVI <sub>2MccL</sub>	Max	838	85 9	72 9	73 7	87 9	84 8	74 7	100 2	71 9	97 0	91 7	74 4	96 6
	Min	657	66 9	53 9	55 3	70 1	66 4	49 3	785	53 2	72 8	70 7	56 4	71 4
	Average	738	74 5	62 1	63 2	79 4	75 1	67 3	907	65 8	84 2	79 5	67 0	82 6