

**Table S1.** Consumption and CO<sub>2</sub> emission coefficients of different agricultural input factors in Beijing in 2019.

| Input Factors        | Consumption (10 <sup>4</sup> t) | $C_i$ (kgC/kg) |
|----------------------|---------------------------------|----------------|
| nitrogen fertilizer  | 3.93                            | 3.39           |
| phosphate fertilizer | 1.63                            | 0.64           |
| potash fertilizer    | 1.3                             | 0.18           |
| compound fertilizer  | 4.22                            | 0.38           |
| pesticide            | 0.34                            | 4.93           |
| mulch film           | 0.57                            | 5.18           |