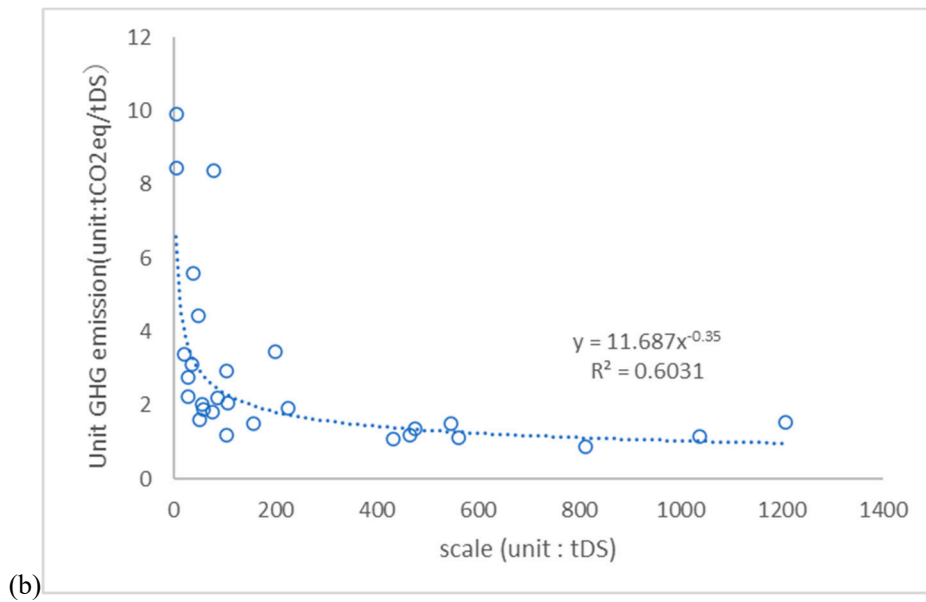
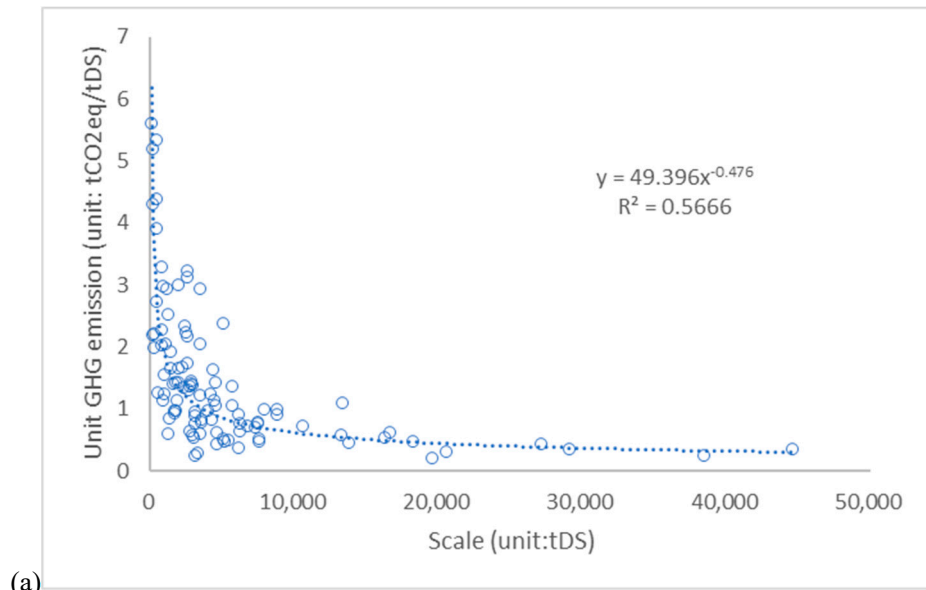


# Supplementary Materials



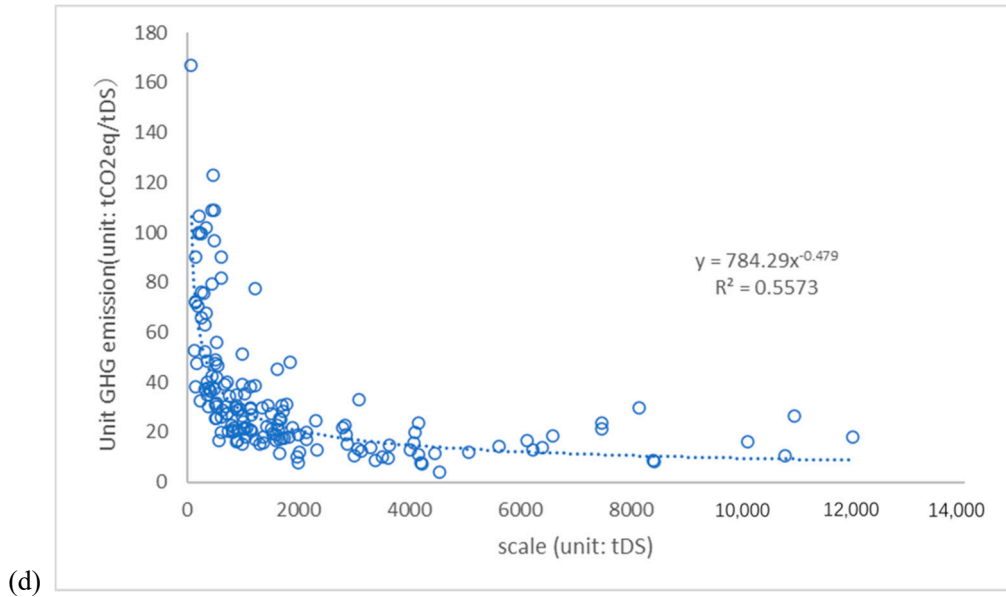
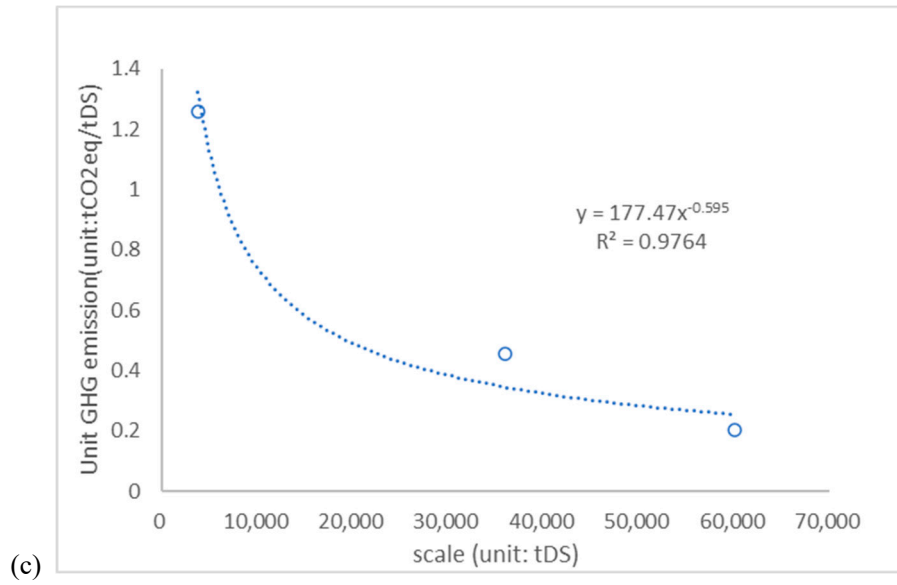
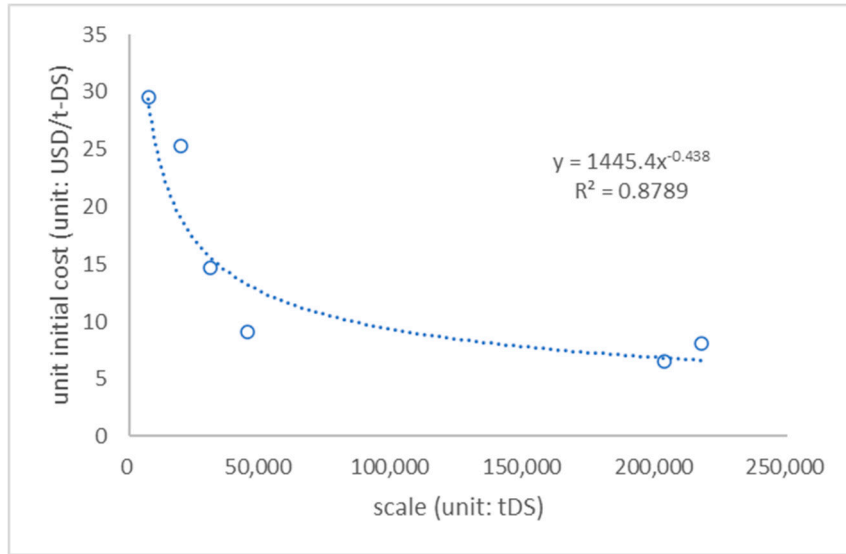
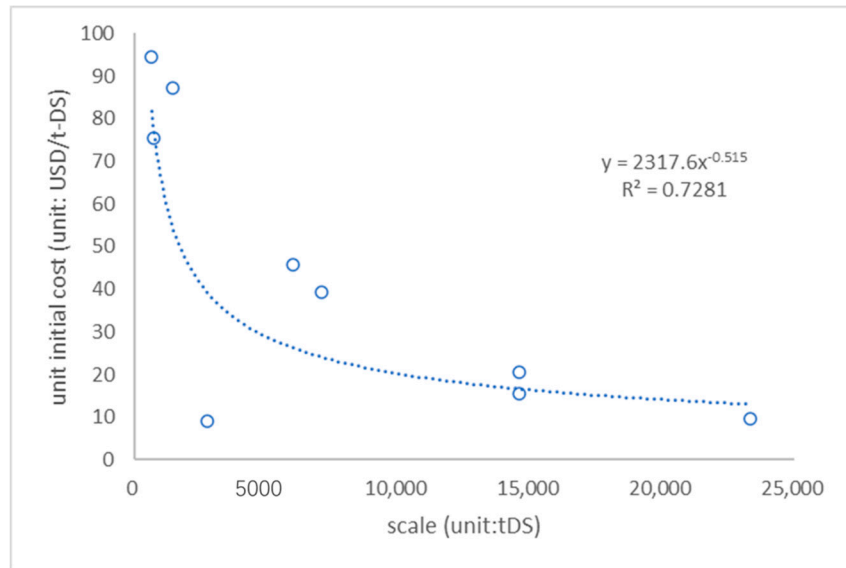


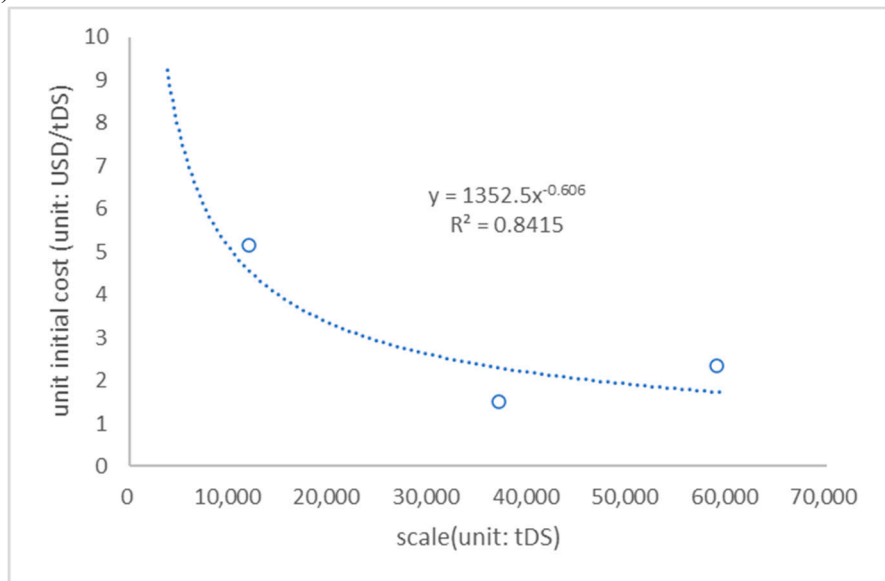
Figure S1. The relationship of unit GHG emission of different system and implementation scale.  
 (a) Incineration; (b) Aerobic composting; (c) Used in Building material (brick); (d) Anaerobic digestion. The horizontal axis indicated the implementation of scale of SRTS projects (t-DS). The vertical axis indicated the unit GHG emission generated in SRTS projects (tCO<sub>2</sub> eq/t-DS).



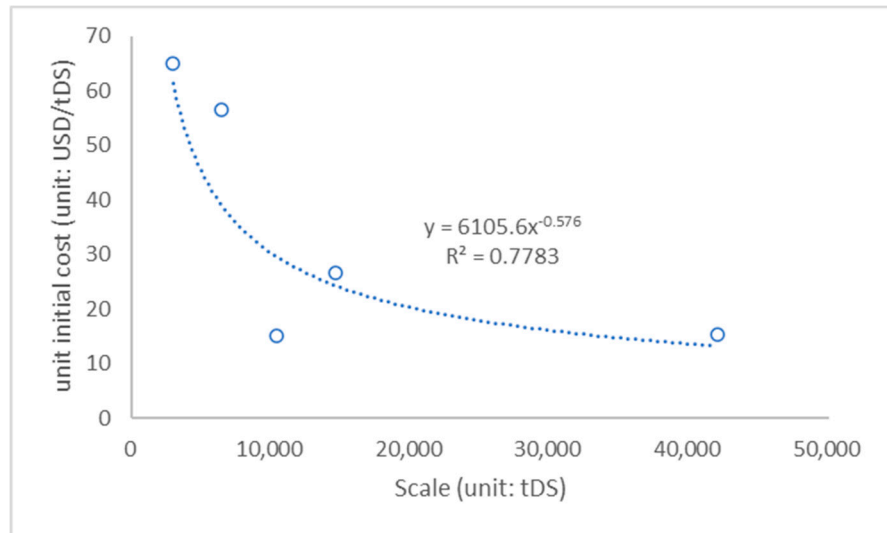
(a)



(b)



(c)

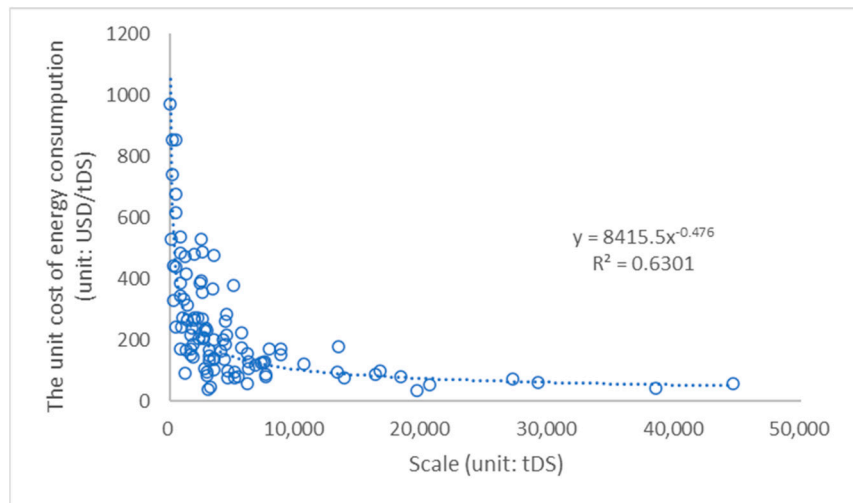


(d)

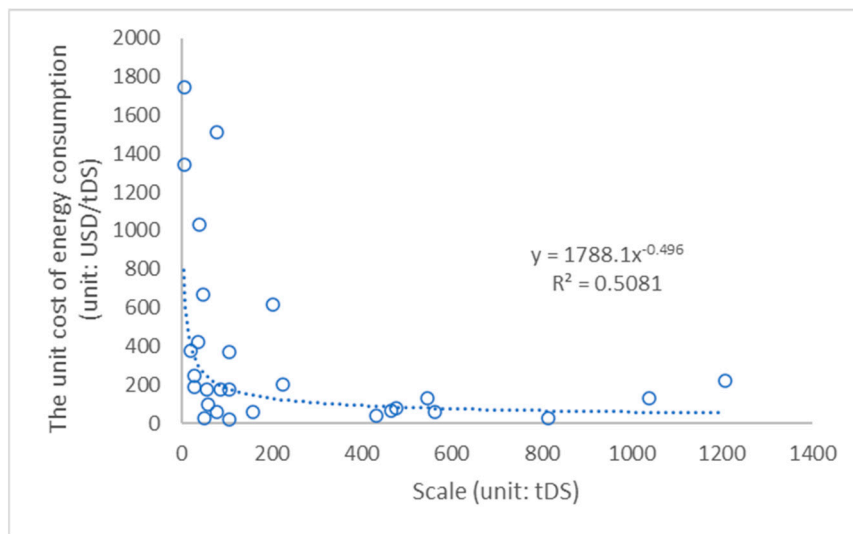
Figure S2. The relationship of unit initial cost of different system and the implementation scale.

(a) Incineration; (b) Aerobic composting; (c) Used in Building material (brick); (d) Anaerobic digestion. The horizontal axis showed the implementation scale of STRS projects (t-DS/y).

The vertical axis showed the unit initial cost of SRTS projects (USD/t-DS).



(a)



(b)

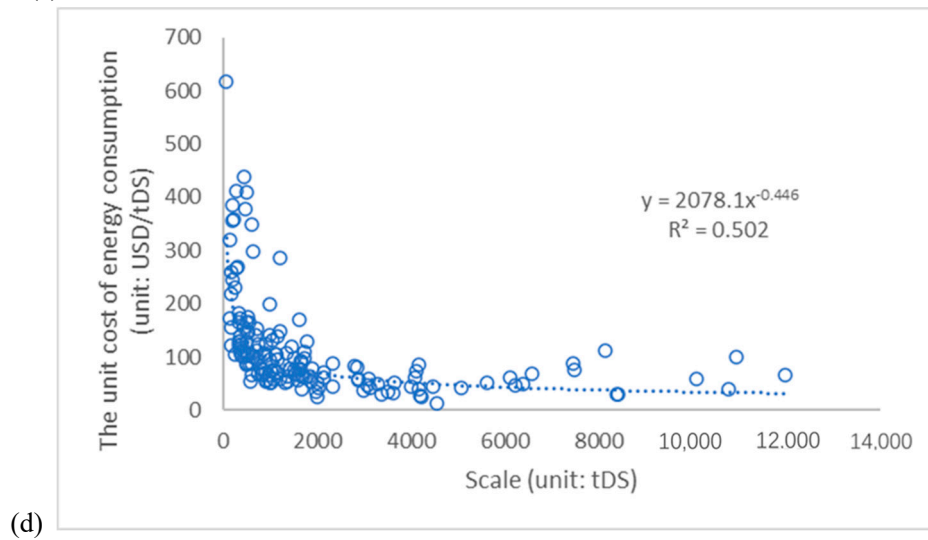
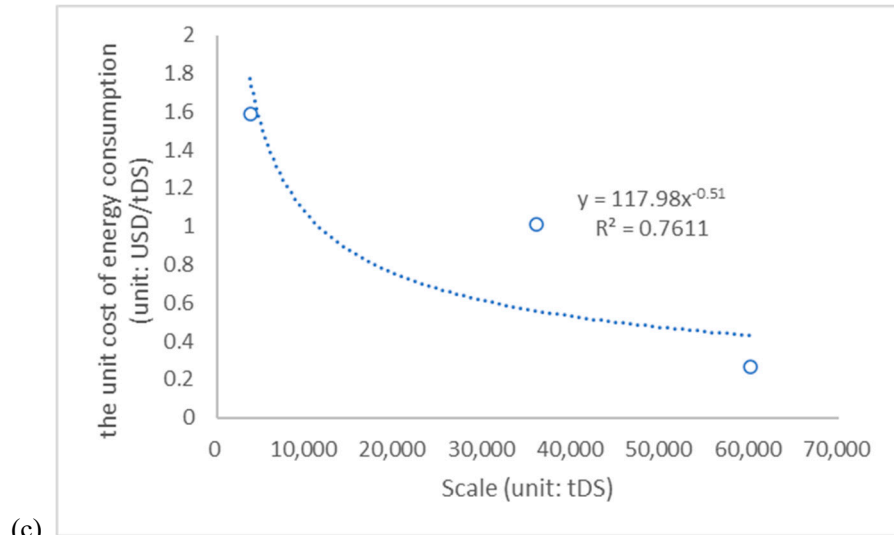
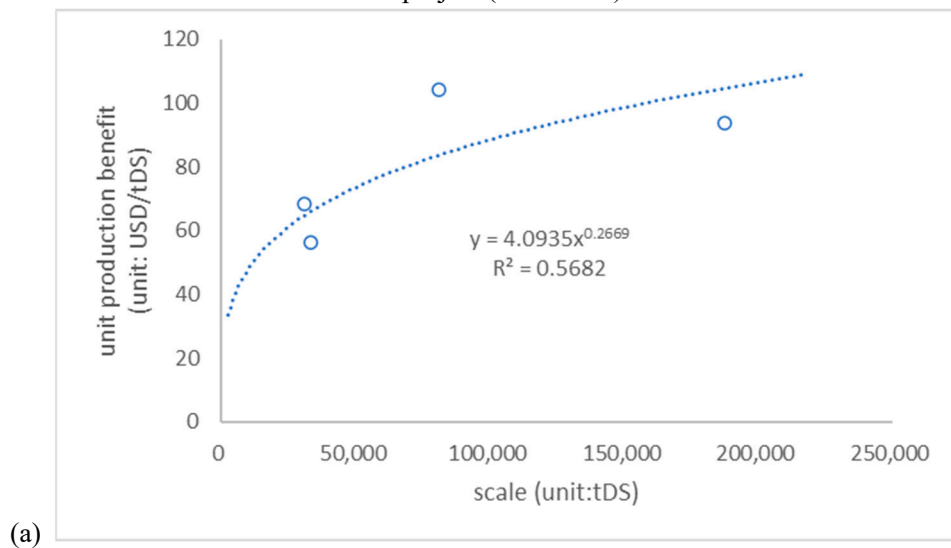


Figure S3. The relationship of the unit cost of energy consumption of different system and the implementation scale. (a) Incineration; (b) Aerobic composting; (c) Used in Building material (brick); (d) Anaerobic digestion. Horizontal axis indicated the implementation scale of SRTS projects (t-DS), and vertical axis indicated the unit cost of energy consumption of each SRTS project (USD/t-DS).



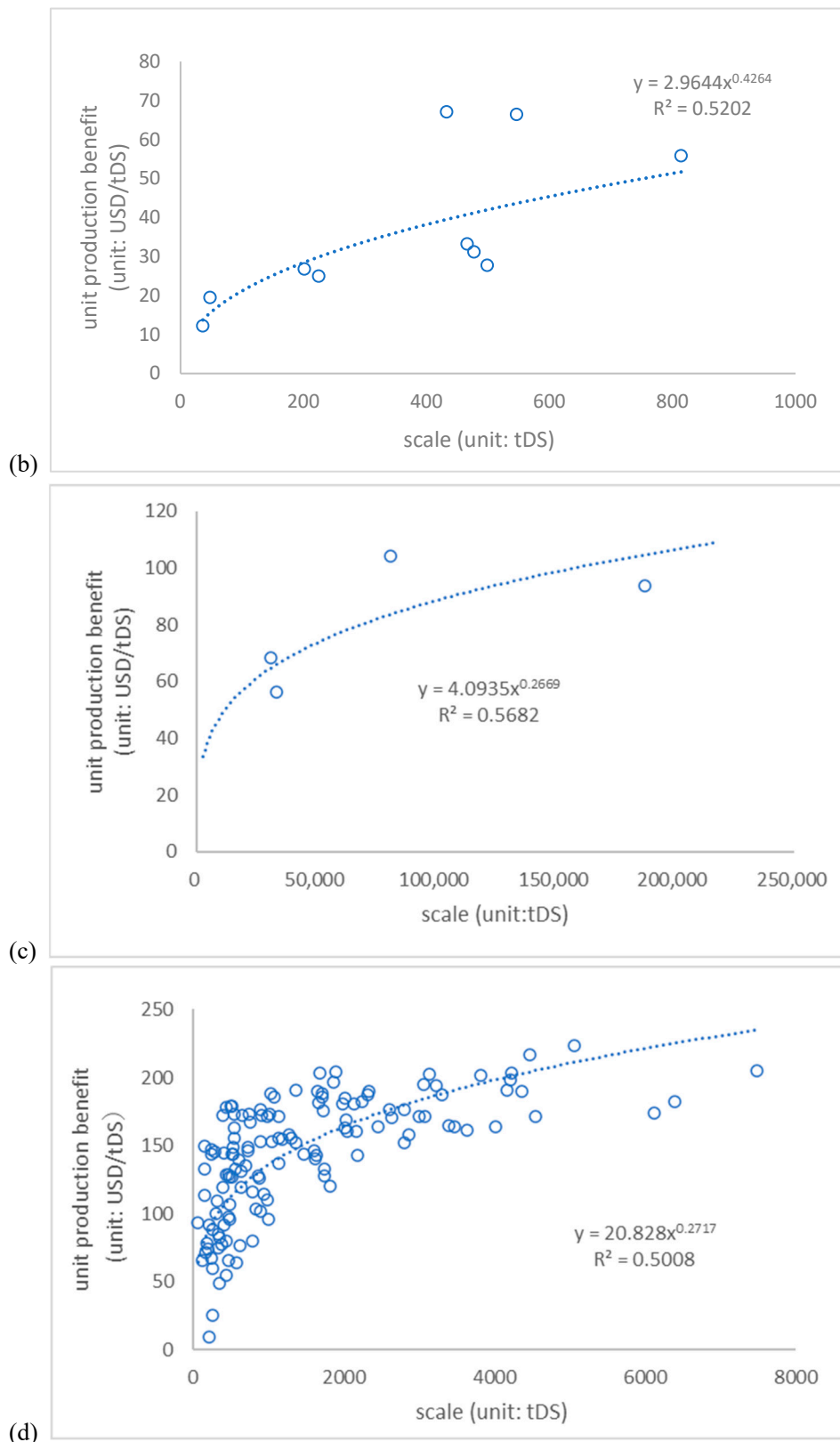


Figure S4. The relationship of the unit revenue of different system and implementation of scale. (a) Incineration; (b) Aerobic composting; (c) Used in material (brick); (d) Anaerobic digestion. The horizontal axis showed the implementation scale of each STRS project (t-DS/y), while the vertical axis showed the revenue of by-products of each SRTS project (USD/t-DS).