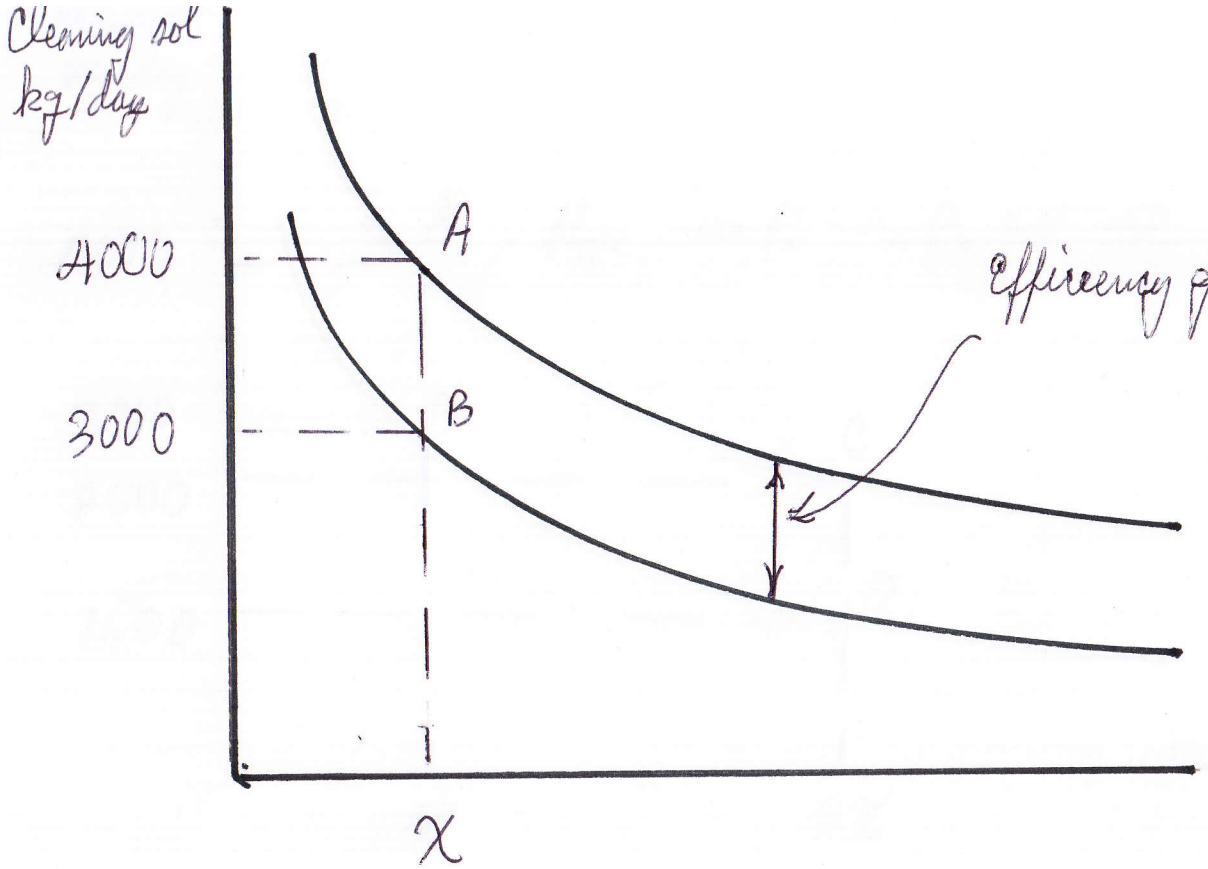


Efficiency gain is 1000 kg/day

~~Isoquant~~ Isoquant

Q=100 attendees/day old

Q=100 attendees/day new

Paper prod kg/days

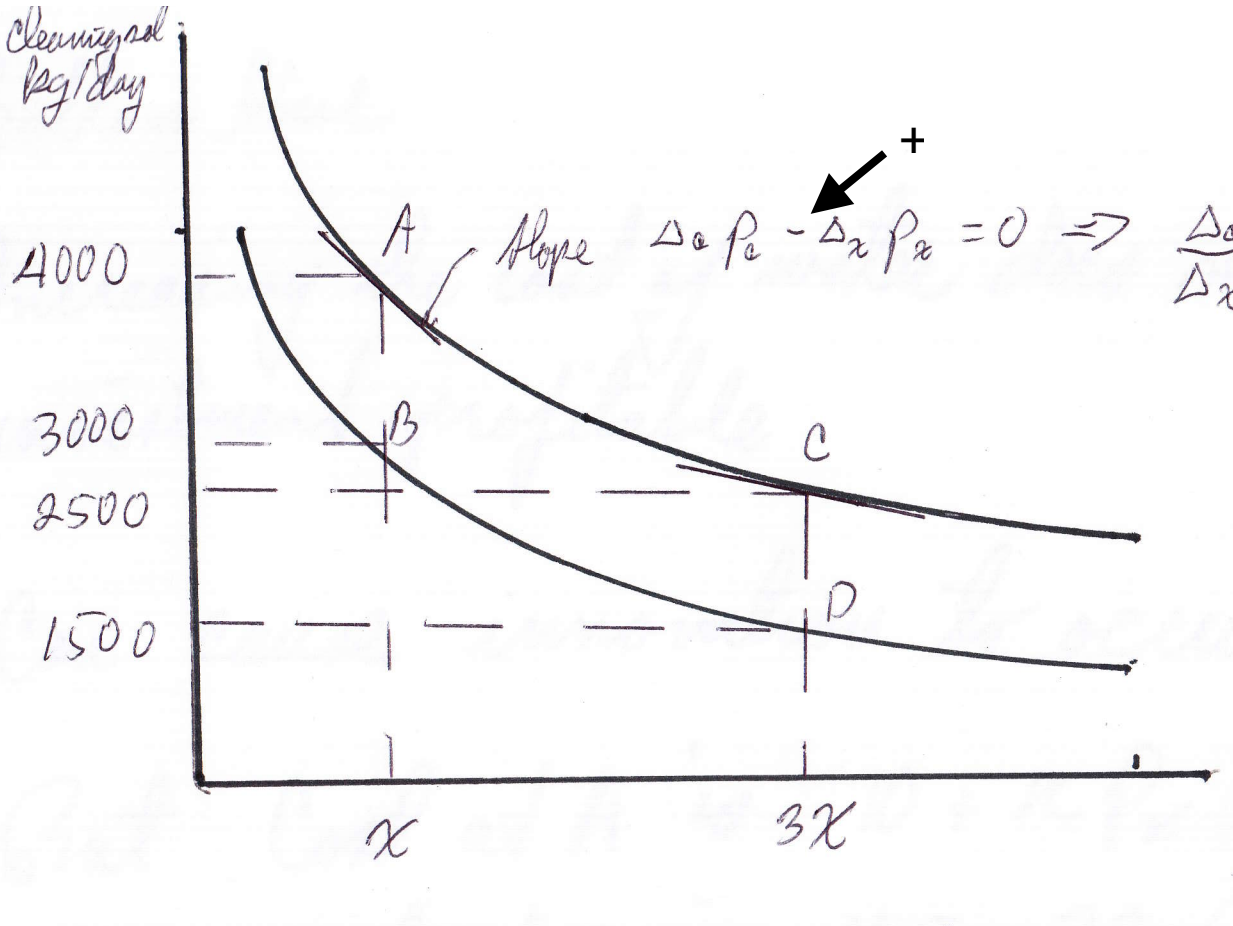
Investment #1 Increase water efficiency ($1000/yr or $3/day)

Investment #2 Improve food storage

Cost at A $\quad 4000\,kg \cdot \frac{.0025}{kg} + x P_x = \$10 + x P_x$

Cost at B $\quad 3000\,kg \cdot \frac{.0025}{kg} + x P_x + 3 = \$10.5 + x P_x$

} firm will not make investment



+ -

Slope $\Delta_c P_c - \Delta_x P_x = 0 \Rightarrow \frac{\Delta_c}{\Delta_x} = \frac{P_x}{P_c}$

Increase cost of water to $\frac{.0050}{kg}$; without investment firm moves to C

Cost at C $= 2500\,kg \frac{.0050}{kg} + 3x P_x = \$12.50 + 3x P_x$

Cost at D $= 1500\,kg \frac{.0050}{kg} + 3x P_x + 3 = \$10.50 + 3x P_x$

Bottom line

Increasing the cost of water does make the investment profitable

Can cause innovation to occur

But Cost at A is $10 + xP_x$

Cost at D is $10,5 + 3xP_x$

Profits have declined

And we did not invest in improved food storage