Case Notes

# Chapter 9: Process Design And Layout Planning

# Sustainable Food Development: The Future Is Looking Up

## Case Summary

*This case uses a vertical farm in Sweden and a floating vegetable farm in the US as exemplars of new process design for sustainability in the agricultural industry.*

Case Analysis *This case illustrates the processes of farming can be designed in creative ways to achieve sustainability goals while meeting technological and managerial constraints. From vertical farms in Sweden to floating farms in the US, examples are used to demonstrate the viability of designing and operating sustainable processes in the agricultural industry. These examples show that food can be grown close to consumers in urban areas using sustainable operations (e.g., vegetables are fertilized by waste from nearby fish tanks) and experimental process designs (e.g., plants will travel from the top floor to take advantage of natural sunlight and return to the bottom for easier harvesting).*

## Sample Answers to Case Questions

1. Think of other examples of sustainability that are motivating corporations worldwide to redesign their processes. What are some of the critical factors that have led to this movement and process designs and layouts changing as a result?

The critical factors that have led to the movement of designing and operating sustainable processes include (1) a better understanding of both positive and negative impacts of business processes to the environment and people, (2) a recognition that protecting people, guarding the environment, and making profits are achievable goals, and (3) an acknowledgement of the strategic importance of sustainable business practices.

2. What are some of the advantages and disadvantages of sustainable processes and plant layouts?

Advantages of sustainable processes and layouts include (1) reduced wastes, (2) reduced costs of materials and operations, (3) improved resource utilization, (4) improved workers’ well-being, (5) minimized environmental impacts, and (6) improved competitiveness. Disadvantages of sustainable processes and layouts include (1) difficulty in curtailing green washing, and (2) difficulty in balancing profitability and sustainability goals.