

CHAPTER 4

Natural Resource Constraints on the Food System

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Chapter Summary

Increasing global demands for food is occurring at the same time that water shortages, land and energy restrictions, climate change and environmental pollution are escalating in many parts of the world. Much of the attention thus far has focused on supply side factors that can produce more food with fewer resources. Consumers, whose personal water footprints are dominated by food-related activities possessing both direct and indirect resource requirements, mainly control the demand side factors for food. From the perspective of conserving natural resources, reducing the consumption of certain animal products, increasing the consumption plant-based foods, changing the ways that foods are accessed or perceived, and selecting foods that are produced with fewer potential water pollutants are among the most relevant.

Chapter Headings

Introduction

- Footprints

Water Constraints

- Footprints
- Efficiency

Energy Constraints

- Footprints & Efficiency
- Water-Energy-Food Nexus

Ecological Constraints

- Land
- Oceans & Freshwaters
- Crop Nutrients
- Climate

Discussion

- A Nexus Approach
- The Demand Side

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