

Art Slides

**HUMANS IN THE
LANDSCAPE: AN
INTRODUCTION TO
ENVIRONMENTAL STUDIES**

FIRST EDITION

by

Kai N. Lee

William R. Freudenburg

Richard B. Howarth

Art Slides

Chapter 14

Addressing Affluence

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TABLE 14.1 U.S. CONSUMPTION PATTERNS PROJECTED TO THE WHOLE PLANET.

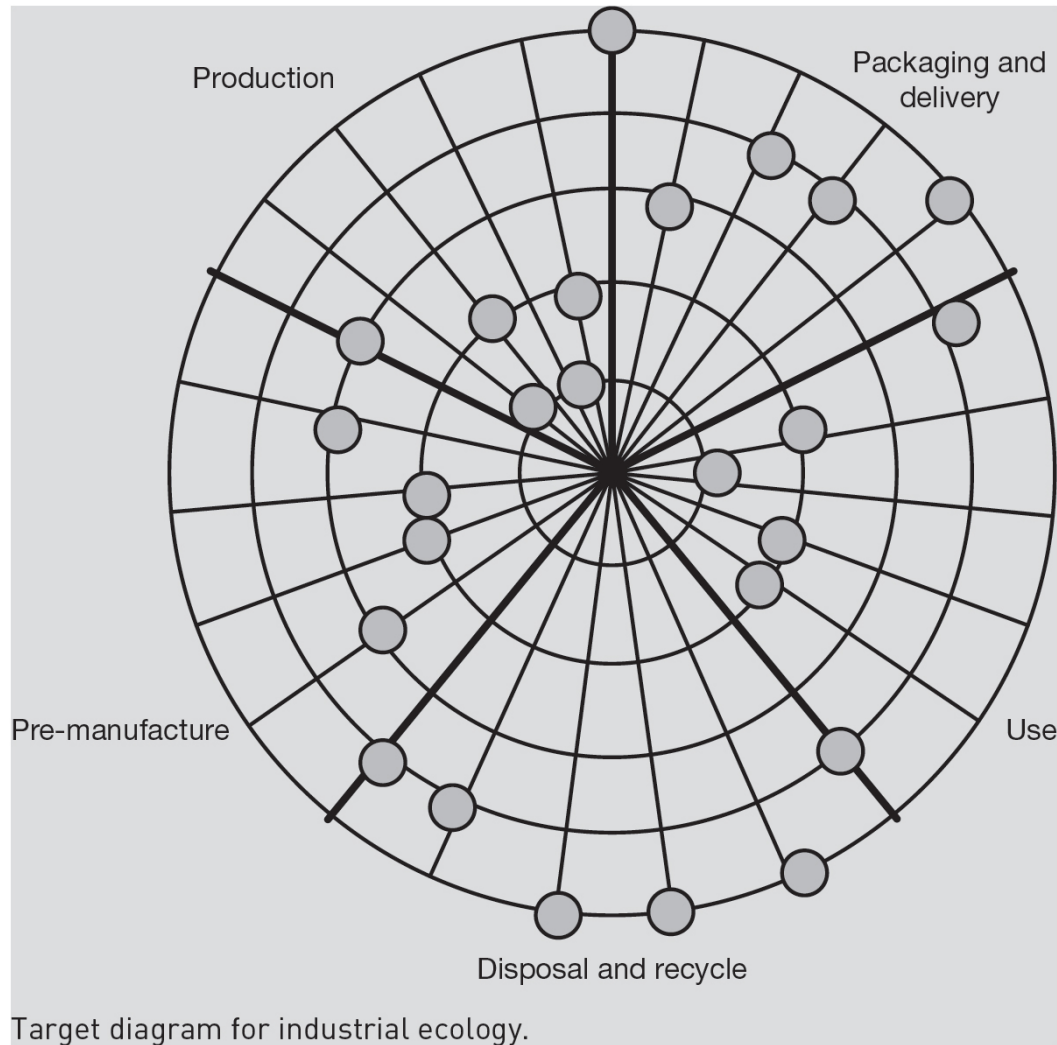
Commodity	1990 U.S. apparent consumption	1990 world production	Necessary world production for world per capita consumption to equal U.S. per capita	Factor increase
Plastic	25.0	78.3	530.0	6.8
Synthetic fibers	3.9	13.2	82.7	6.3
Aluminum	5.3	17.8	111.5	6.3
Copper	2.2	8.8	46.0	5.2
Salt	40.6	202.3	860.7	4.3
Fertilizer (potash)	5.5	28.3	115.5	4.1
Industrial sand and gravel	24.8	133.1	525.3	4.0
Iron and steel	99.9	593.7	2,117.9	3.6
Nitrogen	18.0	107.9	381.0	3.5
Cement	81.3	1,251.1	1,723.1	1.4

Production and consumption in millions of tons, based on U.S. Bureau of Mines data; calculations based on 1990 U.S. population of 249 million and world population of 5.3 billion.

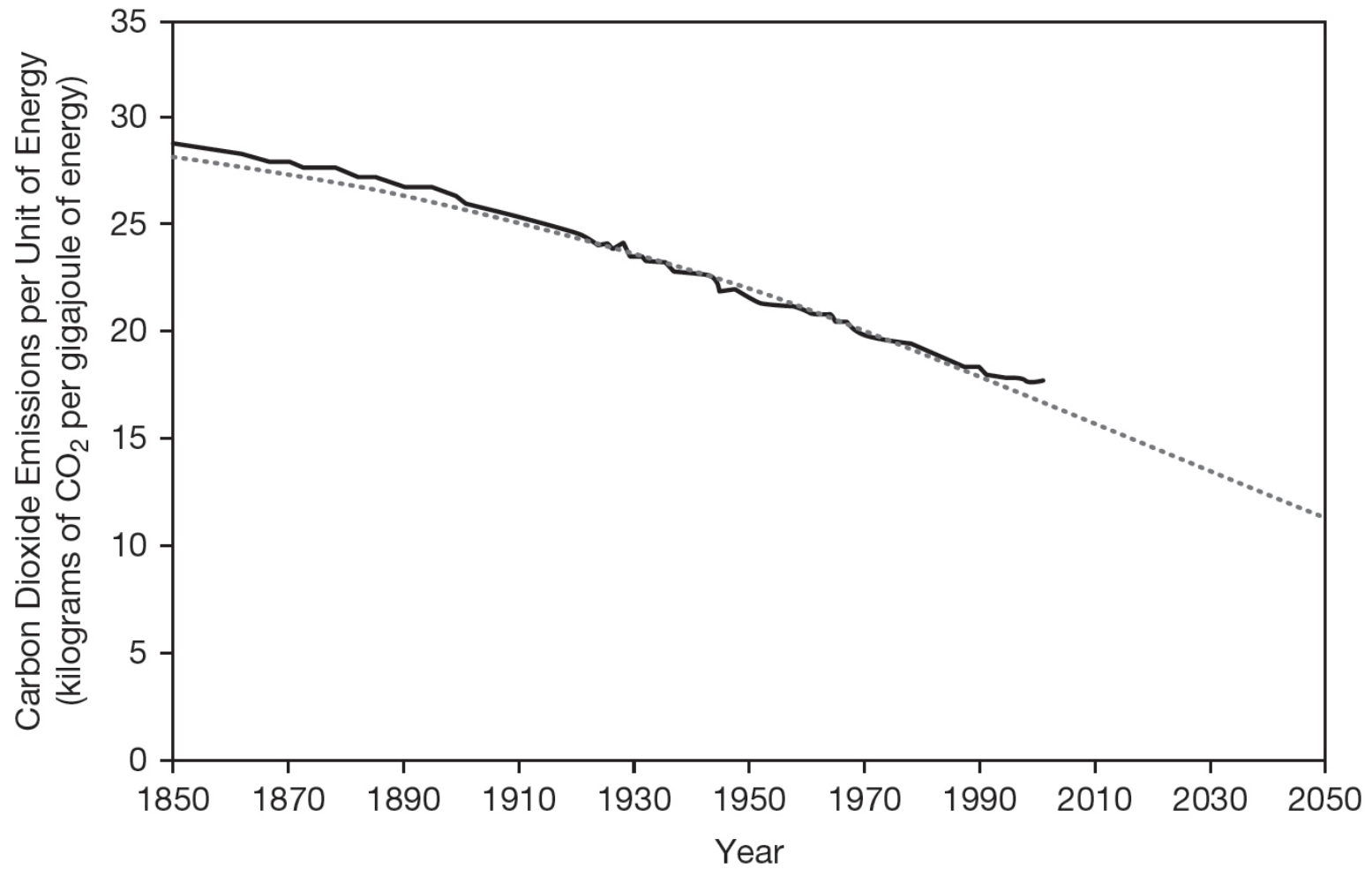
	Materials	Energy	Solid residues	Liquid residues	Gaseous residues
Pre-manufacture					
Production					
Packaging and delivery					
Use					
Disposal and recycle					

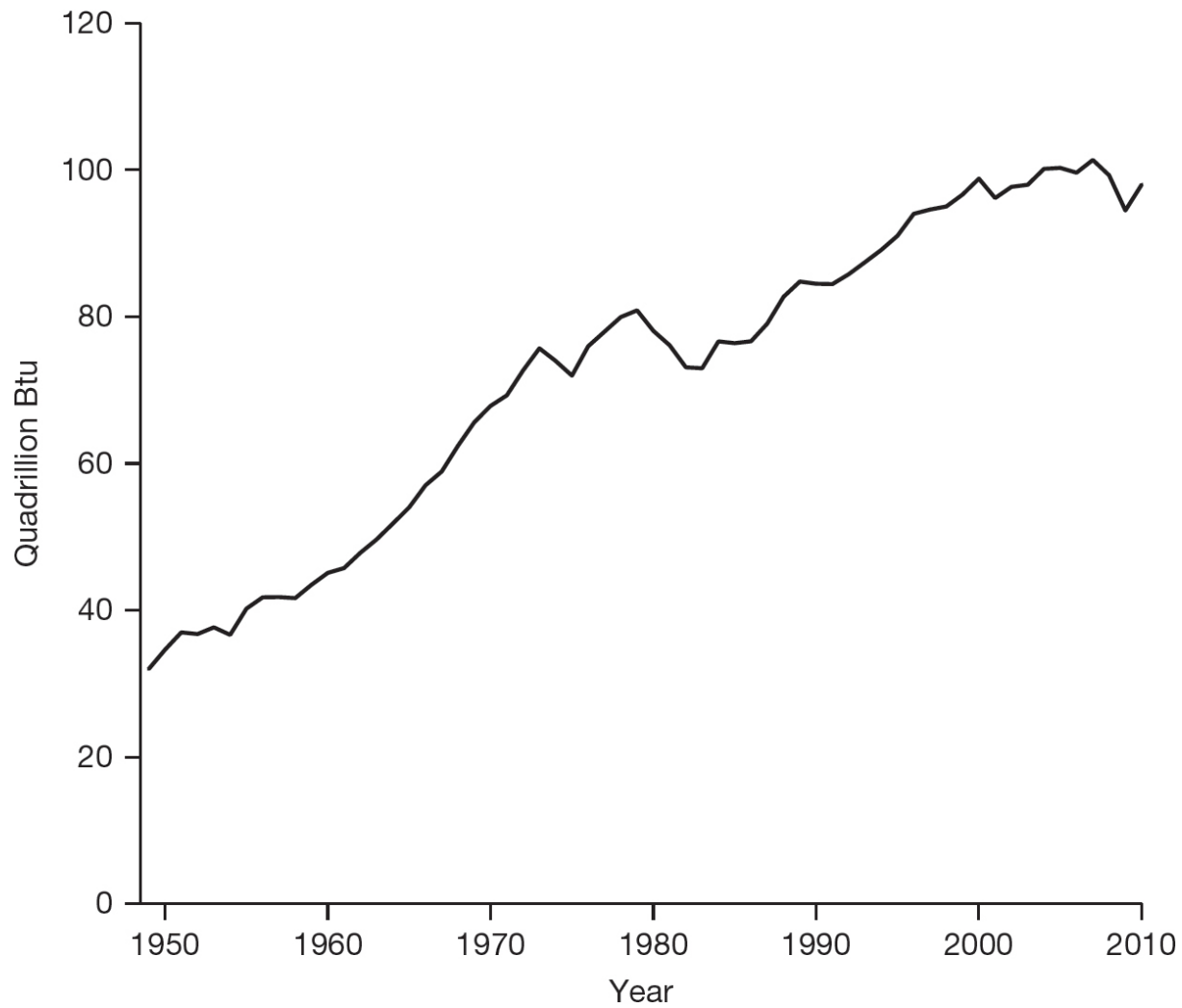
SOURCE: T. E. GRAEDEL AND B. R. ALLENBY.

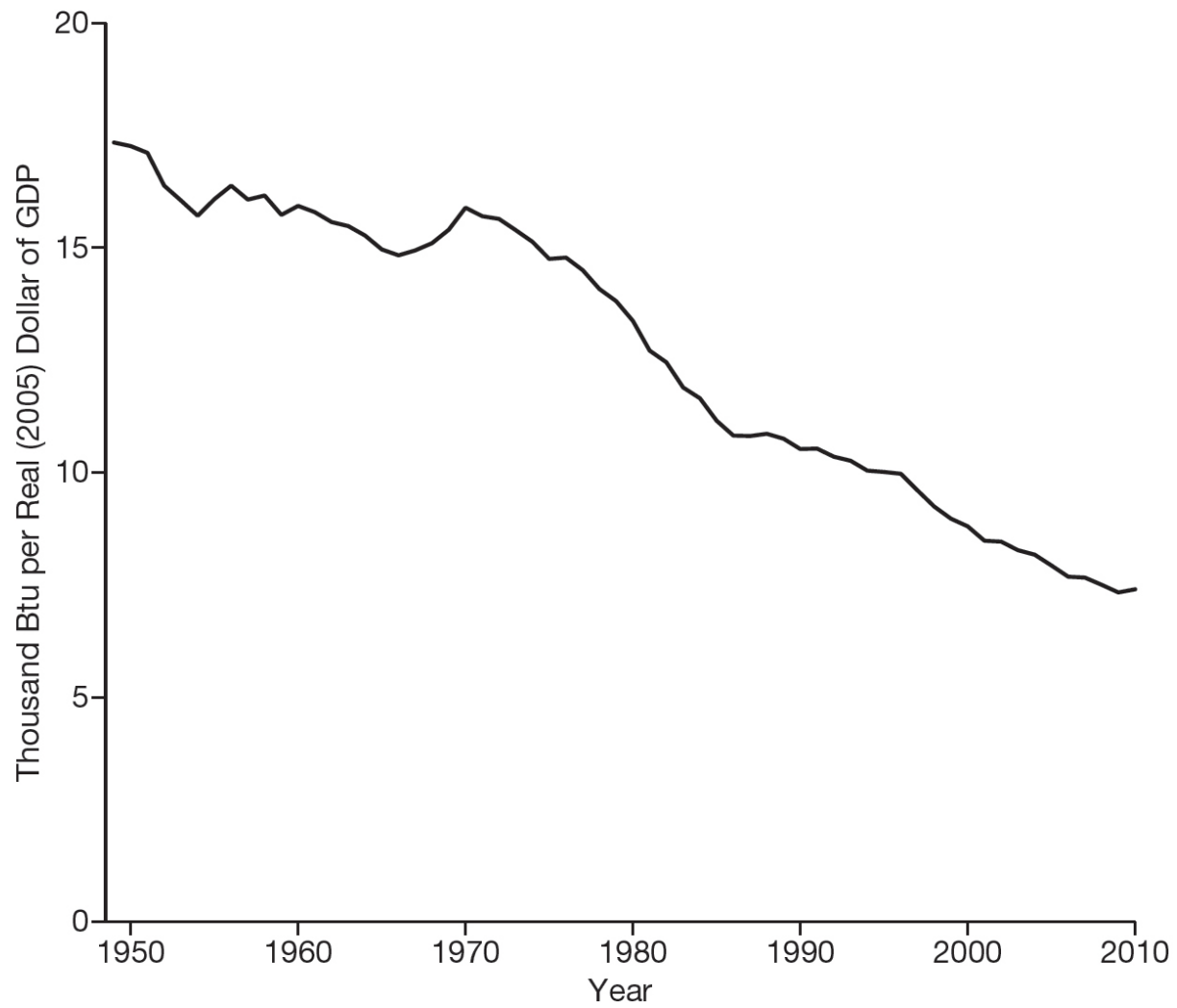
Matrix to organize discussion of industrial ecology for a product.

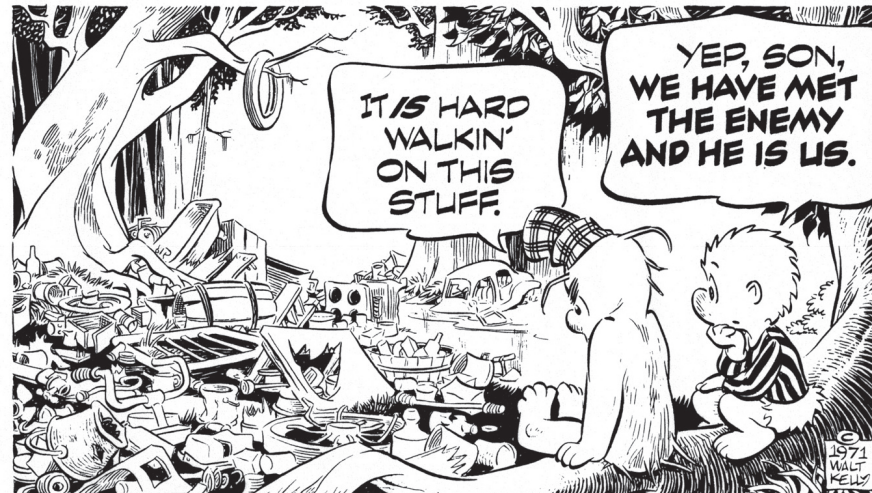
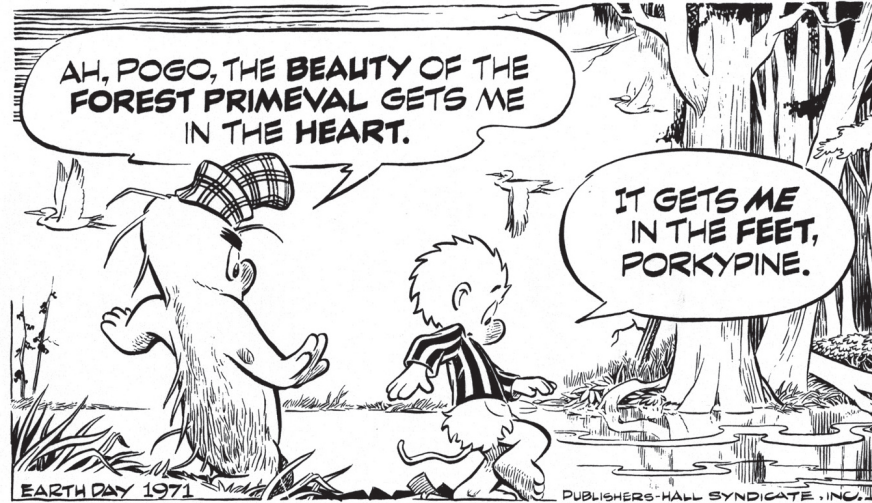


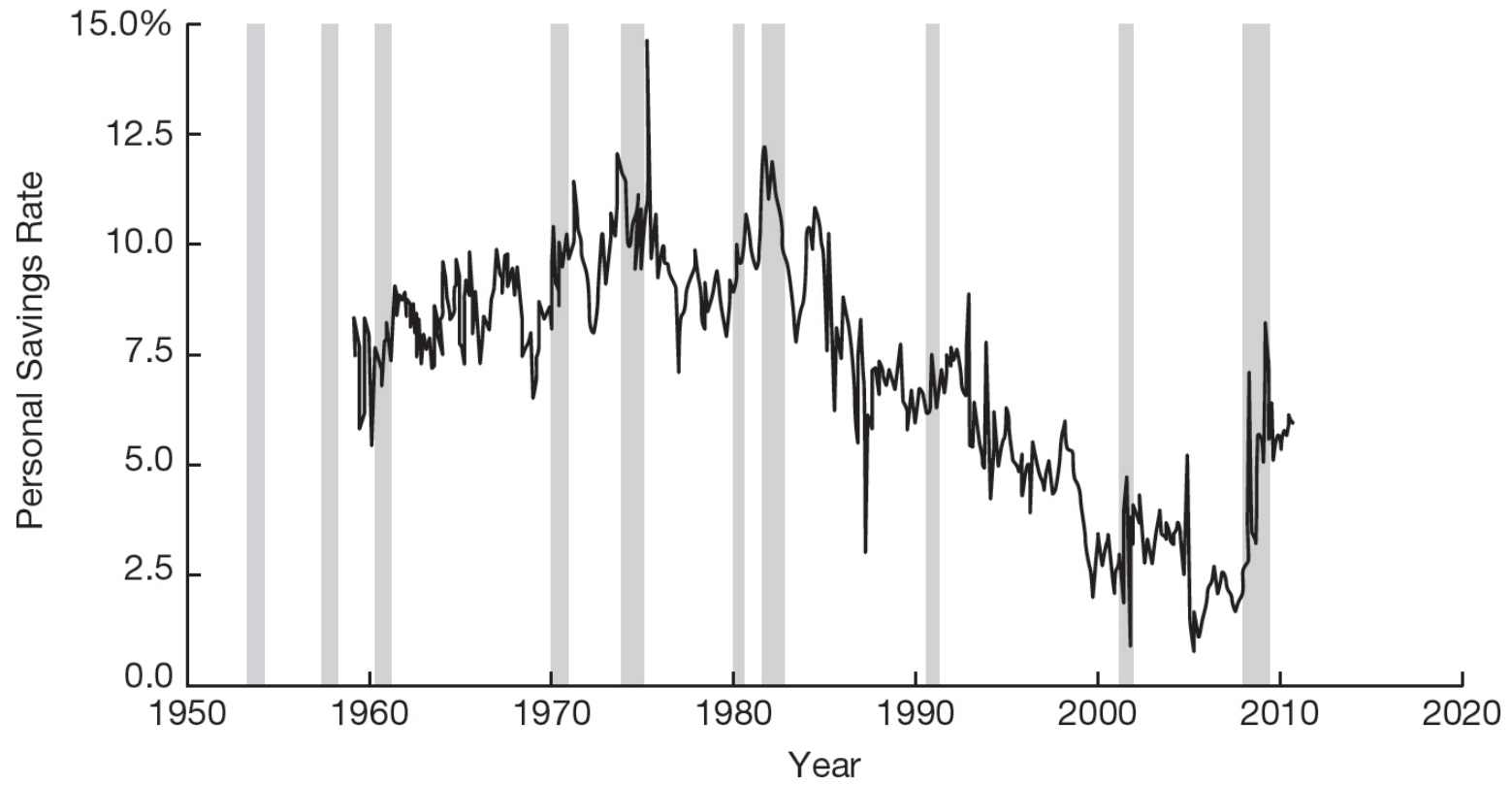
Target diagram for industrial ecology.















MONTEREY BAY AQUARIUM

Seafood WATCH



RAINBOW TROUT

Central US
Sustainable
Seafood Guide
January 2012

BEST CHOICES

Arctic Char (farmed)
 Barramundi (US farmed)
 Catfish (US farmed)
 Clams, Mussels, Oysters (farmed)
 Cod: Pacific (US non-trawled)
 Crab: Dungeness, Stone
 Halibut: Pacific (US)
 Lobster: California Spiny (US)
 Perch: Yellow (Lake Erie)*
 Sablefish/Black Cod (Alaska & Canada)
 Salmon (Alaska wild)
 Sardines: Pacific (US)
 Scallops (farmed)
 Shrimp: Pink (Oregon)
 Striped Bass (farmed & wild*)
 Tilapia (US farmed)
 Trout: Rainbow (US farmed)
 Tuna: Albacore (Canada & US Pacific, troll/pole)
 Tuna: Skipjack, Yellowfin (US troll/pole)
 Whitefish: Lake (Lake Huron & Superior)*
 Whitefish: Lake (Lake Michigan, trap-net)*

GOOD ALTERNATIVES

Basa/Pangasius/Swai (farmed)
 Caviar, Sturgeon (US farmed)
 Clams, Oysters (wild)
 Cod: Pacific (US trawled)
 Crab: Blue*, King (US), Snow
 Flounders, Soles (Pacific)
 Flounder: Summer (US Atlantic)
 Grouper: Black, Red (US Gulf of Mexico)*
 Herring: Atlantic, Lake
 Lobster: American/Maine
 Mahi Mahi (US)
 Perch: Yellow (Lake Ontario & Huron)
 Pollock: Alaska (US)
 Salmon (CA, OR, WA*, wild)
 Scallops (wild)
 Shrimp (US, Canada)
 Smelt: Rainbow
 Swordfish (US)*
 Tilapia (Central & South America farmed)
 Trout: Lake (Lake Huron & Superior)*
 Tuna: Bigeye, Tongol, yellowfin (troll/pole)
 Walleye*
 Whitefish: Lake (Lake Michigan, gillnet)*

AVOID

Caviar, Sturgeon* (imported wild)
 Chilean Seabass/Toothfish*
 Cod: Atlantic (Canada & US)
 Crab: King (imported)
 Flounders, Halibut, Soles (US Atlantic, except Summer Flounder)
 Groupers (US Atlantic)*
 Lobster: Spiny (Brazil)
 Mahi Mahi (imported longline)
 Monkfish
 Orange Roughy*
 Salmon (farmed, including Atlantic)*
 Sharks*
 Shrimp (imported)
 Snapper: Red
 Swordfish (imported)*
 Tilapia (Asia farmed)
 Trout: Lake (Lake Michigan)*
 Tuna: Albacore*, Bigeye*, Skipjack, Tongol, Yellowfin* (except troll/pole)
 Tuna: Bluefin*
 Tuna: Canned (except troll/pole)

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